

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 1**

In a certain language 'to be polite' is coded as 'fa so la', 'she is polite' is coded as 'so me pa' and 'to have manners' is coded as 'na la ma'. Which of the following is the code for 'be' in that language?

- A) so    ✓B) fa    C) la    D) me    E) ma

Ⓓ be polite → fa so la

she is polite → so me pa

**Explanation:-** Ⓓ have manners → na la ma  
 'fa' is the code for 'be' in that language.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

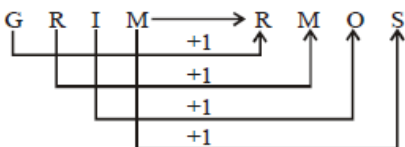
**Question No. : 2**

Study the following series:

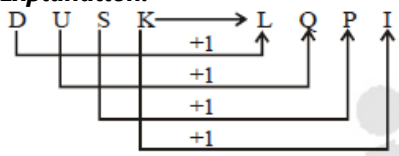
T J E N U Q A K I O G R M S P B H F D L V C

If in a certain code 'GRIM' is coded as 'RMOS' and 'DUSK' is coded as 'LQPI' how will 'STOP' be coded in the same code language?

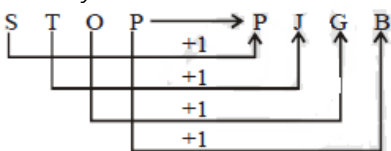
- A) MJIS    ✓B) PJGB    C) JPJIS    D) MJGB    E) PGJB



**Explanation:-**



Similarly



**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 3**

7 R E T 4 A 9 % D F 1 U # B @ 8 H I © W M ★ 3 2 V \$ 5 N P 6 Q

How many such consonants are there in the above arrangement, each of which is immediately preceded by a consonant and immediately followed by a number ?

- A) None    B) 1    ✓C) 2    D) 3    E) More than 3

Consonant	Consonant	Number
-----------	-----------	--------

**Explanation:-** Such combinations are : DF1 NP6

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 4**

7 R E T 4 A 9 % D F 1 U # B @ 8 H I © W M ★ 3 2 V \$ 5 N P 6 Q

How many such numbers are there in the above arrangement, each of which is immediately preceded by a letter but not immediately followed by a symbol?

- A) None   B) 1   C) 2    D) 3   E) More than 3

Letter	Number	Letter or Number
--------	--------	------------------

Such combinations are:

**Explanation:-**

T4A
-----

F1U
-----

P6Q
-----

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 5**

7 R E T 4 A 9 % D F 1 U # B @ 8 H I © W M ★ 3 2 V \$ 5 N P 6 Q

How many such vowels are there in the above arrangement, each of which is immediately followed by a symbol ?

- A) None   B) 1    C) 2   D) 3   E) More than 3

Vowel	Symbol
-------	--------

Such combinations are:

**Explanation:-**

U#
----

I©
----

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 6**

7 R E T 4 A 9 % D F 1 U # B @ 8 H I © W M ★ 3 2 V \$ 5 N P 6 Q

Four of the following five are alike in a certain way based on their position in the above arrangement and so form a group. Which is the one that does not belong to the group?

- A) RTA    B) 9DF   C) #@H   D) 3V5   E) IW★

$$\begin{array}{l}
 R \xrightarrow{+2} T \xrightarrow{+2} A \\
 9 \xrightarrow{+2} D \xrightarrow{+1} F \\
 \# \xrightarrow{+2} @ \xrightarrow{+2} H \\
 3 \xrightarrow{+2} V \xrightarrow{+2} 5 \\
 I \xrightarrow{+2} W \xrightarrow{+2} \star
 \end{array}$$

**Explanation:-** 9DF does not belong to the group given in options.

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 7**

7 R E T 4 A 9 % D F 1 U # B @ 8 H I © W M ★ 3 2 V \$ 5 N P 6 Q

Which of the following is the fourth to the left of the twelfth from the left end ?

- A) %    B) 8   C) 2   D) H   E) None of these

**Explanation:-** Fourth to left of 12th from left means 8th from left.

7 R E T 4 A 9 % D F

8th from the left.

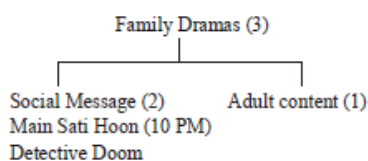
**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 8**

A television channel has scheduled five half-hour shows between 9.30 pm and midnight. Out of the three family drama shows 'Main Sati Hoon' has social message for audience. The family dramas bring in maximum revenues for the channel and they are scheduled one after another. The show 'Detective Doom' is a suspense thriller, a family drama and also has social message. Two of the family dramas have social message and one not having social message has adult content. There are two shows which have adult content and they have been scheduled at 10.30 pm and 11.30 pm. The show 'HIV and India' is a news based program and also has social message. 'Midnight Murders' neither has social message nor is a family drama and is scheduled at 11.30 pm. The two news based programs but are not family dramas have been given two adjacent slots. The show 'Main Sati Hoon' has been scheduled for 10.00 to 10.30 pm slot and has a family drama preceding it. 'Laugh a While' is the fifth program.

When is 'Laugh a While' scheduled ?

- A) 9:00 pm to 9:30 pm    B) 9:30 pm to 10:00 pm    C) 10:00 pm to 10:30 pm     D) 10:30 pm to 11:00 pm  
E) None of these



**Explanation:-**

- \* The 3 family dramas are scheduled between 9.30 PM to 11 PM, with two shows with social message between 9.30 PM to 10.30 PM and one with adult content between 10.30 PM to 11 PM.
- \* The 2 news based programs are scheduled between 11 PM to 12 PM with the one having adult content is scheduled at 11.30 PM (Midnight Murders).
- \* So HIV and India is the other news based program and scheduled at 11 PM.
- \* Laugh a while is the third Family Drama with adult content and is scheduled at 10.30 PM.

As discussed above.

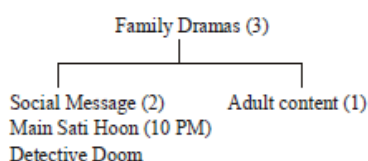
**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 9**

A television channel has scheduled five half-hour shows between 9.30 pm and midnight. Out of the three family drama shows 'Main Sati Hoon' has social message for audience. The family dramas bring in maximum revenues for the channel and they are scheduled one after another. The show 'Detective Doom' is a suspense thriller, a family drama and also has social message. Two of the family dramas have social message and one not having social message has adult content. There are two shows which have adult content and they have been scheduled at 10.30 pm and 11.30 pm. The show 'HIV and India' is a news based program and also has social message. 'Midnight Murders' neither has social message nor is a family drama and is scheduled at 11.30 pm. The two news based programs but are not family dramas have been given two adjacent slots. The show 'Main Sati Hoon' has been scheduled for 10.00 to 10.30 pm slot and has a family drama preceding it. 'Laugh a While' is the fifth program.

Based on the information above which of the following is not implied ?

- A) 'Midnight Murders' is a news based program    B) 'Laugh a While' has adult content  
 C) 'Detective Doooms' has adult content    D) 'HIV and India' has social message    E) None of these



**Explanation:-**

- \* The 3 family dramas are scheduled between 9.30 PM to 11 PM, with two shows with social message between 9.30 PM to 10.30 PM and one with adult content between 10.30 PM to 11 PM.
- \* The 2 news based programs are scheduled between 11 PM to 12 PM with the one having adult content is scheduled at 11.30 PM (Midnight Murders).
- \* So HIV and India is the other news based program and scheduled at 11 PM.
- \* Laugh a while is the third Family Drama with adult content and is scheduled at 10.30 PM.

Detective Doom is a family drama with a social message and is scheduled at 9.30 PM. It do not have any adult content.

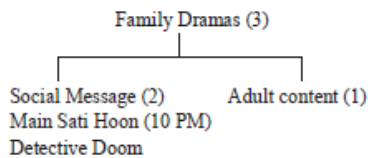
**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 10**

A television channel has scheduled five half-hour shows between 9.30 pm and midnight. Out of the three family drama shows 'Main Sati Hoon' has social message for audience. The family dramas bring in maximum revenues for the channel and they are scheduled one after another. The show 'Detective Doom' is a suspense thriller, a family drama and also has social message. Two of the family dramas have social message and one not having social message has adult content. There are two shows which have adult content and they have been scheduled at 10.30 pm and 11.30 pm. The show 'HIV and India' is a news based program and also has social message. 'Midnight Murders' neither has social message nor is a family drama and is scheduled at 11.30 pm. The two news based programs but are not family dramas have been given two adjacent slots. The show 'Main Sati Hoon' has been scheduled for 10.00 to 10.30 pm slot and has a family drama preceding it. 'Laugh a While' is the fifth program.

When is 'HIV and India' scheduled ?

- ✓A) 11:00 pm to 11:30 pm    B) 9:30 pm to 10:00 pm    C) 10:00 pm to 10:30 pm    D) 10:30 pm to 11:00 pm  
E) None of these



**Explanation:-**

- \* The 3 family dramas are scheduled between 9.30 PM to 11 PM, with two shows with social message between 9.30 PM to 10.30 PM and one with adult content between 10.30 PM to 11 PM.
- \* The 2 news based programs are scheduled between 11 PM to 12 PM with the one having adult content is scheduled at 11.30 PM (Midnight Murders).
- \* So HIV and India is the other news based program and scheduled at 11 PM.
- \* Laugh a while is the third Family Drama with adult content and is scheduled at 10.30 PM.

HIV and India is scheduled between 11.00 PM to 11.30 PM.

**DIRECTIONS for the question:** Find the value/s of x and y and mark the answer accordingly..

**Question No. : 11**

- I.  $12x^2 + 11x + 12 = 10x^2 + 22x$   
II.  $13y^2 - 18y + 3 = 9y^2 - 10y$

- A) if  $x > y$     ✓B) if  $x \geq y$     C) if  $x < y$     D) if  $x \leq y$     E) if  $x = y$  or the relationship cannot be established

**Explanation:-**

I.  $12x^2 + 11x + 12 = 10x^2 + 22x$   
 $2x^2 - 11x + 12 = 0$   
 $2x^2 - 8x - 3x + 12 = 0$   
 $(x - 4)(2x - 3) = 0$   
 $x = 4, x = 3/2$   
 II.  $13y^2 - 18y + 3 = 9y^2 - 10y$   
 $4y^2 - 8y + 3 = 0$   
 $4y^2 - 6y - 2y + 3 = 0$   
 $(2y - 3)(2y - 1) = 0$   
 $y = \frac{3}{2}, \frac{1}{2}$   
 $\therefore x \geq y$

**DIRECTIONS for the question:** Find the value/s of  $x$  and  $y$  and mark the answer accordingly..

**Question No. : 12**

I  $\frac{18}{x^2} + \frac{6}{x} - \frac{12}{x^2} = \frac{8}{x^2}$

II.  $y^3 + 9.68 + 5.64 = 16.95$

A) if  $x > y$  B) if  $x \geq y$   C) if  $x < y$  D) if  $x \leq y$  E) if  $x = y$  or the relationship cannot be established

$$\frac{18}{x^2} + \frac{6}{x} - \frac{12}{x^2} = \frac{8}{x^2}$$

$$\Rightarrow \frac{18 + 6x - 12}{x^2} = \frac{8}{x^2} \Rightarrow 6x + 6 = 8$$

**Explanation:-**  $\therefore x = \frac{2}{6} = 0.33$

II.  $y^3 + 9.68 + 5.64 = 16.95$

$\Rightarrow y^3 = 16.95 - 15.32$

$\Rightarrow y^3 = 1.63 \Rightarrow y = \sqrt[3]{1.63}$

$y = 1.17$

$x < y.$

**DIRECTIONS for the question:** Find the value/s of  $x$  and  $y$  and mark the answer accordingly..

**Question No. : 13**

I  $\sqrt{1225x} + \sqrt{4900} = 0$

II.  $(81)^{1/4}y + (343)^{1/3} = 0$

A) if  $x > y$  B) if  $x \geq y$  C) if  $x < y$  D) if  $x \leq y$  E) if  $x = y$  or the relationship cannot be established

**Explanation:-** I.  $35x + 70 = 0$

$\therefore x = \frac{-70}{35} = -2$

II.  $(81)^{1/4}y + (343)^{1/3} = 0$

$\Rightarrow 3y + 7 = 0 \Rightarrow 3y = -7$

$\therefore y = -\frac{7}{3} = -2.33 \therefore x > y$

**DIRECTIONS for the question:** Find the value/s of  $x$  and  $y$  and mark the answer accordingly..

**Question No. : 14**

I  $\frac{(2)^5 + (11)^3}{6} = x^3$

II.  $4y^3 = -(589 \div 4) + 5y^3$

A) if  $x > y$  B) if  $x \geq y$  C) if  $x < y$  D) if  $x \leq y$  E) if  $x = y$  or the relationship cannot be established

$$\text{I } \frac{(2)^5 + (11)^3}{6} = x^3$$

$$\Rightarrow \frac{32 + 1331}{6} = x^3 \Rightarrow \frac{1363}{6} = x^3$$

$\therefore x^3 = 227.167$

II  $4y^3 = \frac{-589}{4} + 5y^3 \Rightarrow \frac{589}{4} = y^3$

**Explanation:-**  $\therefore y^3 = 147.25 \therefore x > y$

**DIRECTIONS for the question:** Find the value/s of  $x$  and  $y$  and mark the answer accordingly..

**Question No. : 15**

I.  $(x^{7/5} \div 9) = 169 \div x^{3/5}$

II.  $y^{1/4} \times y^{1/4} \times 7 = 273 \div y^{1/2}$

A) if  $x > y$  B) if  $x \geq y$  C) if  $x < y$   D) if  $x \leq y$  E) if  $x = y$  or the relationship cannot be established

**Explanation:-** I.  $x^{7/5} \div 9 = 169 \div x^{3/5}$

$$\frac{x^{7/5}}{9} = \frac{169}{x^{3/5}}$$

$$\Rightarrow x^{10/5} = 9 \times 169 \Rightarrow x^2 = 9 \times 169$$

$$x = \pm(3 \times 13) = \pm 39$$

II.  $y^{1/4} \times y^{1/4} \times 7 = \frac{273}{y^{1/2}}$

$$y = \frac{273}{7} = 39$$

$$x \leq y$$

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 16**

The evolution of Bring Your Own Device (BYOD) trend has been as profound as it has been rapid. It represents the more visible sign that the boundaries between personal life and work life are blurring. The 9 am - 5 pm model of working solely from office has become archaic and increasingly people are working extended hours from a range of locations. At the very heart of this evolution is the ability to access enterprise networks from anywhere and anytime. The concept of cloud computing serves effectively to extend the office out of office. The much heralded benefit of BYOD is greater productivity. However, recent research has suggested that this is the greatest myth of BYOD and the reality is that BYOD in practice poses new challenges that may outweigh the benefits. A worldwide survey commissioned by Fortinet chose to look at attitudes towards BYOD and security from the users's point of view instead of the IT managers. Specifically the survey was conducted in 15 territories on a group of graduate employees in their early twenties because they represent the first generation to enter the workplace with an expectation of own device use. Moreover, they also represent tomorrow's influencers and decision makers. The survey findings reveal that for financial organizations, the decision to embrace BYOD is extremely dangerous. Larger organizations will have mature IT strategies and policies in place. But what about smaller financial businesses? They might not have such well developed strategies to protect confidential data.

Crucially, within younger employee group, 55% of the people share an expectation that they should be allowed to use their own devices in the workplace or for work purposes. With this expectation comes the very real risk that employees may consider contravening company policy banning the use of own devices. The threats posed by this level of subversion cannot be overstated. The survey casts doubt on the idea of BYOD leading to greater productivity by revealing the real reason people want to use their own devices. Only 26% of people in this age group cite efficiency as the reason they want to use their own devices, while 63% admit that the main reason is so they have access to their favourite applications. But with personal applications so close to hand, the risks to the business must surely include distraction and time wasting. To support this assumption 46% of people polled acknowledged time wasting as the greatest threat to the organization, while 42% citing greater exposure to theft or loss of confidential data. Clearly, from a user perspective there is great deal of contradiction surrounding BYOD and there exists an undercurrent of selfishness where users expect to use their own devices, but mostly for personal interest. They recognize the risks to the organization but are adamant that those risks are worth taking.

According to the passage, for which of the following reasons did Fortinet conduct the survey on a group of graduate employees in their early twenties?

- (A) As this group represents the future decision makers
- (B) As this group represents the first generation who entered the workforce with a better understanding of sophisticated gadgets
- (C) As this group represents the first generation to enter the workplace expecting that they can use their own devices for work purpose

A) All (A), (B) and (C) B) Only (C)  C) Both (A) and (C) D) Only (A) E) Only (B)

**Explanation:-** as per paragraph 1 A and C are correct, hence correct answer is (c)

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 17**

The evolution of Bring Your Own Device (BYOD) trend has been as profound as it has been rapid. It represents the more visible sign that the boundaries between personal life and work life are blurring. The 9 am - 5 pm model of working solely from office has become archaic and increasingly people are working extended hours from a range of locations. At the very heart of this evolution is the ability to access enterprise networks from anywhere and anytime. The concept of cloud computing serves effectively to extend the office out of office. The much heralded benefit of BYOD is greater productivity. However, recent research has suggested that this is the greatest myth of BYOD and the reality is that BYOD in practice poses new challenges that may outweigh the benefits. A worldwide survey commissioned by Fortinet chose to look at attitudes towards BYOD and security from the users's point of view instead of the IT managers. Specifically the survey was conducted in 15 territories on a group of graduate employees in their early twenties because they represent the first generation to enter the workplace with an expectation of own device use. Moreover, they also represent tomorrow's influencers and decision makers. The survey findings reveal that for financial organizations, the decision to embrace BYOD is extremely dangerous. Larger organizations will have mature IT strategies and policies in place. But what about smaller financial businesses? They might not have such well developed strategies to protect confidential data.

Crucially, within younger employee group, 55% of the people share an expectation that they should be allowed to use their own devices in the workplace or for work purposes. With this expectation comes the very real risk that employees may consider contravening company policy banning the use of own devices. The threats posed by this level of subversion cannot be overstated. The survey casts doubt on the idea of BYOD leading to greater productivity by revealing the real reason people want to use their own devices. Only 26% of people in this age group cite efficiency as the reason they want to use their own devices, while 63% admit that the main reason is so they have access to their favourite applications. But with personal applications so close to hand, the risks to the business must surely include distraction and time wasting. To support this assumption 46% of people polled acknowledged time wasting as the greatest threat to the organization, while 42% citing greater exposure to theft or loss of confidential data. Clearly, from a user perspective there is great deal of contradiction surrounding BYOD and there exists an undercurrent of selfishness where users expect to use their own devices, but mostly for personal interest. They recognize the risks to the organization but are adamant that those risks are worth taking.

Which of the following is not true about BYOD?

- A) BYOD enables employees to access enterprise network from anywhere and anytime
- B) Due to evolution of BYOD trend the 9am - 5pm model of working solely from office has become outdated
- ✓C) Recent research has confirmed that BYOD boosts organisational productivity
- D) The concept of cloud computing facilitates the BYOD trend
- E) A & B

**Explanation:-** paragraph 1 says (in line 13-14) that it is a myth... hence answer is (c)

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 18**

The evolution of Bring Your Own Device (BYOD) trend has been as profound as it has been rapid. It represents the more visible sign that the boundaries between personal life and work life are blurring. The 9 am - 5 pm model of working solely from office has become archaic and increasingly people are working extended hours from a range of locations. At the very heart of this evolution is the ability to access enterprise networks from anywhere and anytime. The concept of cloud computing serves effectively to extend the office out of office. The much heralded benefit of BYOD is greater productivity. However, recent research has suggested that this is the greatest myth of BYOD and the reality is that BYOD in practice poses new challenges that may outweigh the benefits. A worldwide survey commissioned by Fortinet chose to look at attitudes towards BYOD and security from the users' point of view instead of the IT managers. Specifically the survey was conducted in 15 territories on a group of graduate employees in their early twenties because they represent the first generation to enter the workplace with an expectation of own device use. Moreover, they also represent tomorrow's influencers and decision makers. The survey findings reveal that for financial organizations, the decision to embrace BYOD is extremely dangerous. Larger organizations will have mature IT strategies and policies in place. But what about smaller financial businesses? They might not have such well developed strategies to protect confidential data.

Crucially, within younger employee group, 55% of the people share an expectation that they should be allowed to use their own devices in the workplace or for work purposes. With this expectation comes the very real risk that employees may consider contravening company policy banning the use of own devices. The threats posed by this level of subversion cannot be overstated. The survey casts doubt on the idea of BYOD leading to greater productivity by revealing the real reason people want to use their own devices. Only 26% of people in this age group cite efficiency as the reason they want to use their own devices, while 63% admit that the main reason is so they have access to their favourite applications. But with personal applications so close to hand, the risks to the business must surely include distraction and time wasting. To support this assumption 46% of people polled acknowledged time wasting as the greatest threat to the organization, while 42% citing greater exposure to theft or loss of confidential data. Clearly, from a user perspective there is great deal of contradiction surrounding BYOD and there exists an undercurrent of selfishness where users expect to use their own devices, but mostly for personal interest. They recognize the risks to the organization but are adamant that those risks are worth taking.

According to the passage, why would the decision to embrace BYOD prove dangerous to smaller financial businesses?

- A) Their employees have poor knowledge about their devices which in turn pose a threat to the confidential data of the organisation
- B) Their employees are more vulnerable to misplacement of devices
- ✓C) They may lack mature IT strategies and policies required to protect confidential data
- D) They cannot afford to deal with damage liability issues of employee-owned devices
- E) Their employees have a tendency to change jobs frequently

**Explanation:-** paragraph 1 – last few lines



**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 19**

The evolution of Bring Your Own Device (BYOD) trend has been as profound as it has been rapid. It represents the more visible sign that the boundaries between personal life and work life are blurring. The 9 am - 5 pm model of working solely from office has become archaic and increasingly people are working extended hours from a range of locations. At the very heart of this evolution is the ability to access enterprise networks from anywhere and anytime. The concept of cloud computing serves effectively to extend the office out of office. The much heralded benefit of BYOD is greater productivity. However, recent research has suggested that this is the greatest myth of BYOD and the reality is that BYOD in practice poses new challenges that may outweigh the benefits. A worldwide survey commissioned by Fortinet chose to look at attitudes towards BYOD and security from the users' point of view instead of the IT managers. Specifically the survey was conducted in 15 territories on a group of graduate employees in their early twenties because they represent the first generation to enter the workplace with an expectation of own device use. Moreover, they also represent tomorrow's influencers and decision makers. The survey findings reveal that for financial organizations, the decision to embrace BYOD is extremely dangerous. Larger organizations will have mature IT strategies and policies in place. But what about smaller financial businesses? They might not have such well developed strategies to protect confidential data.

Crucially, within younger employee group, 55% of the people share an expectation that they should be allowed to use their own devices in the workplace or for work purposes. With this expectation comes the very real risk that employees may consider contravening company policy banning the use of own devices. The threats posed by this level of subversion cannot be overstated. The survey casts doubt on the idea of BYOD leading to greater productivity by revealing the real reason people want to use their own devices. Only 26% of people in this age group cite efficiency as the reason they want to use their own devices, while 63% admit that the main reason is so they have access to their favourite applications. But with personal applications so close to hand, the risks to the business must surely include distraction and time wasting. To support this assumption 46% of people polled acknowledged time wasting as the greatest threat to the organization, while 42% citing greater exposure to theft or loss of confidential data. Clearly, from a user perspective there is great deal of contradiction surrounding BYOD and there exists an undercurrent of selfishness where users expect to use their own devices, but mostly for personal interest. They recognize the risks to the organization but are adamant that those risks are worth taking.

According to the passage, the expectation of younger employees that they should be allowed to use their own devices in the workplace, entails which of the following risks?

- (A) Younger employees may deliberately transfer confidential data of their companies to rivals if they are not allowed to use their own devices for work purpose
- (B) Younger employees may strongly feel like leaving the company if it presents usage of own device and join some other company that does not have such stringent policies
- (C) Younger employees may consider flouting company policy prohibiting usage of their own devices in the workplace or for work purposes

A) Only (C)   B) Only (B)   C) Both (A) and (C)   D) Only (A)   E) All (A), (B) and (C)

**Explanation:-** paragraph 2, the 4th and 5th line explains this point.

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 20**

The evolution of Bring Your Own Device (BYOD) trend has been as profound as it has been rapid. It represents the more visible sign that the boundaries between personal life and work life are blurring. The 9 am - 5 pm model of working solely from office has become archaic and increasingly people are working extended hours from a range of locations. At the very heart of this evolution is the ability to access enterprise networks from anywhere and anytime. The concept of cloud computing serves effectively to extend the office out of office. The much heralded benefit of BYOD is greater productivity. However, recent research has suggested that this is the greatest myth of BYOD and the reality is that BYOD in practice poses new challenges that may outweigh the benefits. A worldwide survey commissioned by Fortinet chose to look at attitudes towards BYOD and security from the users' point of view instead of the IT managers. Specifically the survey was conducted in 15 territories on a group of graduate employees in their early twenties because they represent the first generation to enter the workplace with an expectation of own device use. Moreover, they also represent tomorrow's influencers and decision makers. The survey findings reveal that for financial organizations, the decision to embrace BYOD is extremely dangerous. Larger organizations will have mature IT strategies and policies in place. But what about smaller financial businesses? They might not have such well developed strategies to protect confidential data.

Crucially, within younger employee group, 55% of the people share an expectation that they should be allowed to use their own devices in the workplace or for work purposes. With this expectation comes the very real risk that employees may consider contravening company policy banning the use of own devices. The threats posed by this level of subversion cannot be overstated. The survey casts doubt on the idea of BYOD leading to greater productivity by revealing the real reason people want to use their own devices. Only 26% of people in this age group cite efficiency as the reason they want to use their own devices, while 63% admit that the main reason is so they have access to their favourite applications. But with personal applications so close to hand, the risks to the business must surely include distraction and time wasting. To support this assumption 46% of people polled acknowledged time wasting as the greatest threat to the organization, while 42% citing greater exposure to theft or loss of confidential data. Clearly, from a user perspective there is great deal of contradiction surrounding BYOD and there exists an undercurrent of selfishness where users expect to use their own devices, but mostly for personal interest. They recognize the risks to the organization but are adamant that those risks are worth taking.

According to the findings of the survey conducted by Fortinet, why do majority of employees prefer using their own devices for work purpose?

- A) As they often find that the devices provided by the company lack quality
- B) As they have access to their favourite applications while working
- C) As majority of them believe that output doubles when they use their own devices for work purpose
- D) As handling data from their own devices reinforces their sense of responsibility
- E) None of these

**Explanation:-**

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 21**

Delays of several months in National Rural Employment Guarantee Scheme (NREGS) wage payments and work sites where labourers have lost all hope of being paid at all have become the norm in many states. How are workers who exist on the margins of subsistence supposed to feed their families? Under the scheme, workers must be paid within 15 days, failing which they are entitled, to compensation under the Payment of Wages Act - upto 3000 per aggrieved worker. In reality, compensation is received in only a few isolated instances. It is often argued by officials that the main reason for the delay is the inability of banks and post offices to handle mass payments of NREGS wages. Though there is a grain of truth in this, as a diagnosis it is misleading. The 'jam' in the banking system has been the result of the hasty switch to bank payments imposed by the Central Government against the recommendation of the Central Employment Guarantee Council which advocated a gradual transition starting with villages relatively close to the nearest bank. However, delays are not confined solely to the banking system. Operational hurdles include implementing agencies taking more than fifteen days to issue payment orders, viewing of work measurement as a cumbersome process resulting in procrastination by the engineering staff and non maintenance of muster rolls and job card etc. But behind these delays lies a deeper and deliberate 'backlash' against the NREGS. With bank payments making it much harder to embezzle NREGS funds, the programme is seen as a headache by many government functionaries the workload has remained without the "inducements". Slowing down wage payments is a convenient way of sabotaging the scheme because workers will desert NREGS worksites.

The common sense solution advocated by the government is to adopt the business correspondent model. Where in bank agents will go to villages to make cash payments and duly record them on handheld, electronic devices. This solution is based on the wrong diagnosis that distance separating villages from banks is the main issue. In order to accelerate payments, clear timelines for every step of the payment process should be incorporated into the system as Programme Officers often have no data on delays and cannot exert due pressure to remedy the situation. Workers are both clueless and powerless with no provision for them to air their grievances and seek redress. In drought affected areas the system of piece rate work can be dispensed with where work measurement is not completed within a week and wages may be paid on the basis of attendance. Buffer funds can be provided to gram panchayats and post offices to avoid bottlenecks in the flow of funds. Partial advances could also be considered provided wage payments are meticulously tracked. But failure to recognise problems and unwillingness to remedy them will remain major threats to the NREGS.

What impact have late wage payments had on NREGS workers?

- A) They cannot obtain employment till their dues are cleared
- B) They have benefited from the compensation awarded to them
- C) They have been unable to provide for their families
- D) They have been ostracised by their families who depend on them for sustenance
- E) None of these

**Explanation:-**

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 22**

Delays of several months in National Rural Employment Guarantee Scheme (NREGS) wage payments and work sites where labourers have lost all hope of being paid at all have become the norm in many states. How are workers who exist on the margins of subsistence supposed to feed their families? Under the scheme, workers must be paid within 15 days, failing which they are entitled, to compensation under the Payment of Wages Act - upto 3000 per aggrieved worker. In reality, compensation is received in only a few isolated instances. It is often argued by officials that the main reason for the delay is the inability of banks and post offices to handle mass payments of NREGS wages. Though there is a grain of truth in this, as a diagnosis it is misleading. The 'jam' in the banking system has been the result of the hasty switch to bank payments imposed by the Central Government against the recommendation of the Central Employment Guarantee Council which advocated a gradual transition starting with villages relatively close to the nearest bank. However, delays are not confined solely to the banking system. Operational hurdles include implementing agencies taking more than fifteen days to issue payment orders, viewing of work measurement as a cumbersome process resulting in procrastination by the engineering staff and non maintenance of muster rolls and job card etc. But behind these delays lies a deeper and deliberate 'backlash' against the NREGS. With bank payments making it much harder to embezzle NREGS funds, the programme is seen as a headache by many government functionaries the workload has remained without the "inducements". Slowing down wage payments is a convenient way of sabotaging the scheme because workers will desert NREGS worksites.

The common sense solution advocated by the government is to adopt the business correspondent model. Where in bank agents will go to villages to make cash payments and duly record them on handheld, electronic devices. This solution is based on the wrong diagnosis that distance separating villages from banks is the main issue. In order to accelerate payments, clear timelines for every step of the payment process should be incorporated into the system as Programme Officers often have no data on delays and cannot exert due pressure to remedy the situation. Workers are both clueless and powerless with no provision for them to air their grievances and seek redress. In drought affected areas the system of piece rate work can be dispensed with where work measurement is not completed within a week and wages may be paid on the basis of attendance. Buffer funds can be provided to gram panchayats and post offices to avoid bottlenecks in the flow of funds. Partial advances could also be considered provided wage payments are meticulously tracked. But failure to recognise problems and unwillingness to remedy them will remain major threats to the NREGS.

Which of the following factors has not been responsible for untimely payment of NREGS wages?

- A) Communication delays between agencies implementing the scheme    B) Improper record keeping  
C) Behind schedule release of payments by banks     D) Drought conditions prevalent in the country  
E) Delays in work measurement

**Explanation:-**

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 23**

Delays of several months in National Rural Employment Guarantee Scheme (NREGS) wage payments and work sites where labourers have lost all hope of being paid at all have become the norm in many states. How are workers who exist on the margins of subsistence supposed to feed their families? Under the scheme, workers must be paid within 15 days, failing which they are entitled, to compensation under the Payment of Wages Act - upto 3000 per aggrieved worker. In reality, compensation is received in only a few isolated instances. It is often argued by officials that the main reason for the delay is the inability of banks and post offices to handle mass payments of NREGS wages. Though there is a grain of truth in this, as a diagnosis it is misleading. The 'jam' in the banking system has been the result of the hasty switch to bank payments imposed by the Central Government against the recommendation of the Central Employment Guarantee Council which advocated a gradual transition starting with villages relatively close to the nearest bank. However, delays are not confined solely to the banking system. Operational hurdles include implementing agencies taking more than fifteen days to issue payment orders, viewing of work measurement as a cumbersome process resulting in procrastination by the engineering staff and non maintenance of muster rolls and job card etc. But behind these delays lies a deeper and deliberate 'backlash' against the NREGS. With bank payments making it much harder to embezzle NREGS funds, the programme is seen as a headache by many government functionaries the workload has remained without the "inducements". Slowing down wage payments is a convenient way of sabotaging the scheme because workers will desert NREGS worksites.

The common sense solution advocated by the government is to adopt the business correspondent model. Where in bank agents will go to villages to make cash payments and duly record them on handheld, electronic devices. This solution is based on the wrong diagnosis that distance separating villages from banks is the main issue. In order to accelerate payments, clear timelines for every step of the payment process should be incorporated into the system as Programme Officers often have no data on delays and cannot exert due pressure to remedy the situation. Workers are both clueless and powerless with no provision for them to air their grievances and seek redress. In drought affected areas the system of piece rate work can be dispensed with where work measurement is not completed within a week and wages may be paid on the basis of attendance. Buffer funds can be provided to gram panchayats and post offices to avoid bottlenecks in the flow of funds. Partial advances could also be considered provided wage payments are meticulously tracked. But failure to recognise problems and unwillingness to remedy them will remain major threats to the NREGS.

What has the outcome of disbursing NREGS wages through banks been?

- A) Theft of funds by administration officials responsible for the scheme has reduced
- B) Increased work load for local government officials
- C) Protests by workers who have to travel long distances to the nearest bank to claim their wages
- D) Time consuming formalities have to be completed by workers
- E) None of the above

**Explanation:-**

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 24**

Delays of several months in National Rural Employment Guarantee Scheme (NREGS) wage payments and work sites where labourers have lost all hope of being paid at all have become the norm in many states. How are workers who exist on the margins of subsistence supposed to feed their families? Under the scheme, workers must be paid within 15 days, failing which they are entitled, to compensation under the Payment of Wages Act - upto 3000 per aggrieved worker. In reality, compensation is received in only a few isolated instances. It is often argued by officials that the main reason for the delay is the inability of banks and post offices to handle mass payments of NREGS wages. Though there is a grain of truth in this, as a diagnosis it is misleading. The 'jam' in the banking system has been the result of the hasty switch to bank payments imposed by the Central Government against the recommendation of the Central Employment Guarantee Council which advocated a gradual transition starting with villages relatively close to the nearest bank. However, delays are not confined solely to the banking system. Operational hurdles include implementing agencies taking more than fifteen days to issue payment orders, viewing of work measurement as a cumbersome process resulting in procrastination by the engineering staff and non maintenance of muster rolls and job card etc. But behind these delays lies a deeper and deliberate 'backlash' against the NREGS. With bank payments making it much harder to embezzle NREGS funds, the programme is seen as a headache by many government functionaries the workload has remained without the "inducements". Slowing down wage payments is a convenient way of sabotaging the scheme because workers will desert NREGS worksites.

The common sense solution advocated by the government is to adopt the business correspondent model. Where in bank agents will go to villages to make cash payments and duly record them on handheld, electronic devices. This solution is based on the wrong diagnosis that distance separating villages from banks is the main issue. In order to accelerate payments, clear timelines for every step of the payment process should be incorporated into the system as Programme Officers often have no data on delays and cannot exert due pressure to remedy the situation. Workers are both clueless and powerless with no provision for them to air their grievances and seek redress. In drought affected areas the system of piece rate work can be dispensed with where work measurement is not completed within a week and wages may be paid on the basis of attendance. Buffer funds can be provided to gram panchayats and post offices to avoid bottlenecks in the flow of funds. Partial advances could also be considered provided wage payments are meticulously tracked. But failure to recognise problems and unwillingness to remedy them will remain major threats to the NREGS.

According to the passage, which of the following has/have been the consequence (s) of delayed wage payments?

- A. Compensation to victimised workers has amounted to crores.
  - B. Banks will no longer be entrusted with remitting wages.
  - C. Regulations to ensure punctual wage payments have come into force.
- A) None of these    B) Only (A)    C) Only (A) & (C)    D) (A) and (B)    E) (B) and (C)

**Explanation:-**

---

**DIRECTIONS for the question :** Read the passage and answer the question based on it.

**Question No. : 25**

Delays of several months in National Rural Employment Guarantee Scheme (NREGS) wage payments and work sites where labourers have lost all hope of being paid at all have become the norm in many states. How are workers who exist on the margins of subsistence supposed to feed their families? Under the scheme, workers must be paid within 15 days, failing which they are entitled, to compensation under the Payment of Wages Act - upto 3000 per aggrieved worker. In reality, compensation is received in only a few isolated instances. It is often argued by officials that the main reason for the delay is the inability of banks and post offices to handle mass payments of NREGS wages. Though there is a grain of truth in this, as a diagnosis it is misleading. The 'jam' in the banking system has been the result of the hasty switch to bank payments imposed by the Central Government against the recommendation of the Central Employment Guarantee Council which advocated a gradual transition starting with villages relatively close to the nearest bank. However, delays are not confined solely to the banking system. Operational hurdles include implementing agencies taking more than fifteen days to issue payment orders, viewing of work measurement as a cumbersome process resulting in procrastination by the engineering staff and non maintenance of muster rolls and job card etc. But behind these delays lies a deeper and deliberate 'backlash' against the NREGS. With bank payments making it much harder to embezzle NREGS funds, the programme is seen as a headache by many government functionaries the workload has remained without the "inducements". Slowing down wage payments is a convenient way of sabotaging the scheme because workers will desert NREGS worksites.

The common sense solution advocated by the government is to adopt the business correspondent model. Where in bank agents will go to villages to make cash payments and duly record them on handheld, electronic devices. This solution is based on the wrong diagnosis that distance separating villages from banks is the main issue. In order to accelerate payments, clear timelines for every step of the payment process should be incorporated into the system as Programme Officers often have no data on delays and cannot exert due pressure to remedy the situation. Workers are both clueless and powerless with no provision for them to air their grievances and seek redress. In drought affected areas the system of piece rate work can be dispensed with where work measurement is not completed within a week and wages may be paid on the basis of attendance. Buffer funds can be provided to gram panchayats and post offices to avoid bottlenecks in the flow of funds. Partial advances could also be considered provided wage payments are meticulously tracked. But failure to recognise problems and unwillingness to remedy them will remain major threats to the NREGS.

To which of the following has the author attributed the delay in wage payments?

- A) Embezzlement of funds by corrupt bank staff
- B) Lack of monitoring by the Central Employment Guarantee Council
- ✓ C) An attempt to derail the NREGS by vested interests
- D) Overworked bank staff deliberately delay payments to protest against extra work
- E) Engineers efforts to wreck the NREGS because of low wages

**Explanation:-**

## Actual MH-CET 2014

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 26**

Six friends Abhishek, Deepak, Mridul, Pritam, Ranjan and Salil married within a year in the months of February, April, July, September, November and December and in the cities of Ahmedabad, Bengaluru, Chennai, Delhi, Mumbai and Kolkata, but not necessarily following the above order. The brides' names were Geetika, Jasmine, Hema, Brinda, Ipsita and Veena, once again not following any order.

The following are some facts about their weddings.

- (i) Mridul's wedding took place in Chennai, however he was not married to Geetika or Veena
- (ii) Abhishek's wedding took place in Ahmedabad and Ranjan's in Delhi; however neither of them was married to Jasmine or Brinda
- (iii) The wedding in Kolkata took place in February
- (iv) Hema's wedding took place in April, but not in Ahmedabad
- (v) Geetika and Ipsita got married in February and November and in Chennai and Kolkata but not following the above order
- (vi) Pritam visited Bengaluru and Kolkata only after his marriage in December
- (vi) Salil was married to Jasmine to September

Hema's husband is

- A) Abhishek   B) Deepak    C) Ranjan   D) Pritam   E) Mridul

**Explanation:-**

	Mridul	Abhishek	Ranjan	Salil	Deepak	Pritam
Place	Chennai	Ahmedabad	Delhi	Bengaluru	Kolkata	Mumbai
Month	November	July	April	September	February	December
Brides	Ipsita	Veena	Hema	Jasmine	Geetika	Brinda

Ranjan is Hema's Husband.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 27**

Six friends Abhishek, Deepak, Mridul, Pritam, Ranjan and Salil married within a year in the months of February, April, July, September, November and December and in the cities of Ahmedabad, Bengaluru, Chennai, Delhi, Mumbai and Kolkata, but not necessarily following the above order. The brides' names were Geetika, Jasmine, Hema, Brinda, Ipsita and Veena, once again not following any order.

The following are some facts about their weddings.

- (i) Mridul's wedding took place in Chennai, however he was not married to Geetika or Veena
- (ii) Abhishek's wedding took place in Ahmedabad and Ranjan's in Delhi; however neither of them was married to Jasmine or Brinda
- (iii) The wedding in Kolkata took place in February
- (iv) Hema's wedding took place in April, but not in Ahmedabad
- (v) Geetika and Ipsita got married in February and November and in Chennai and Kolkata but not following the above order
- (vi) Pritam visited Bengaluru and Kolkata only after his marriage in December
- (vi) Salil was married to Jasmine to September

Deepak's wedding took place in

- A) Bengaluru   B) Mumbai    C) Kolkata   D) Delhi   E) Chennai

**Explanation:-**

	Mridul	Abhishek	Ranjan	Salil	Deepak	Pritam
Place	Chennai	Ahmedabad	Delhi	Bengaluru	Kolkata	Mumbai
Month	November	July	April	September	February	December
Brides	Ipsita	Veena	Hema	Jasmine	Geetika	Brinda

Deepak's wedding took place in Kolkata.



## Actual MH-CET 2014

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 28**

Six friends Abhishek, Deepak, Mridul, Pritam, Ranjan and Salil married within a year in the months of February, April, July, September, November and December and in the cities of Ahmedabad, Bengaluru, Chennai, Delhi, Mumbai and Kolkata, but not necessarily following the above order. The brides' names were Geetika, Jasmine, Hema, Brinda, Ipsita and Veena, once again not following any order.

The following are some facts about their weddings.

- (i) Mridul's wedding took place in Chennai, however he was not married to Geetika or Veena
- (ii) Abhishek's wedding took place in Ahmedabad and Ranjan's in Delhi; however neither of them was married to Jasmine or Brinda
- (iii) The wedding in Kolkata took place in February
- (iv) Hema's wedding took place in April, but not in Ahmedabad
- (v) Geetika and Ipsita got married in February and November and in Chennai and Kolkata but not following the above order
- (vi) Pritam visited Bengaluru and Kolkata only after his marriage in December
- (vi) Salil was married to Jasmine to September

In Mumbai, the wedding of one of the friends took place in the month of

- A) April   B) September   C) November    D) December   E) July

**Explanation:-**

	<b>Mridul</b>	<b>Abhishek</b>	<b>Ranjan</b>	<b>Salil</b>	<b>Deepak</b>	<b>Pritam</b>
Place	Chennai	Ahmedabad	Delhi	Bengaluru	Kolkata	Mumbai
Month	November	July	April	September	February	December
Brides	Ipsita	Veena	Hema	Jasmine	Geetika	Brinda

It's in the month of December.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 29**

Six friends Abhishek, Deepak, Mridul, Pritam, Ranjan and Salil married within a year in the months of February, April, July, September, November and December and in the cities of Ahmedabad, Bengaluru, Chennai, Delhi, Mumbai and Kolkata, but not necessarily following the above order. The brides' names were Geetika, Jasmine, Hema, Brinda, Ipsita and Veena, once again not following any order.

The following are some facts about their weddings.

- (i) Mridul's wedding took place in Chennai, however he was not married to Geetika or Veena
- (ii) Abhishek's wedding took place in Ahmedabad and Ranjan's in Delhi; however neither of them was married to Jasmine or Brinda
- (iii) The wedding in Kolkata took place in February
- (iv) Hema's wedding took place in April, but not in Ahmedabad
- (v) Geetika and Ipsita got married in February and November and in Chennai and Kolkata but not following the above order
- (vi) Pritam visited Bengaluru and Kolkata only after his marriage in December
- (vi) Salil was married to Jasmine to September

Salil's wedding was held in

- A) Bengaluru   B) Chennai   C) Kolkata   D) Delhi   E) Mumbai

**Explanation:-**

	<b>Mridul</b>	<b>Abhishek</b>	<b>Ranjan</b>	<b>Salil</b>	<b>Deepak</b>	<b>Pritam</b>
Place	Chennai	Ahmedabad	Delhi	Bengaluru	Kolkata	Mumbai
Month	November	July	April	September	February	December
Brides	Ipsita	Veena	Hema	Jasmine	Geetika	Brinda

Salil's wedding was held in Bengaluru.

**DIRECTIONS for the question:** Solve the following question and mark the most appropriate option.

**Question No. : 30**

Six friends Abhishek, Deepak, Mridul, Pritam, Ranjan and Salil married within a year in the months of February, April, July, September, November and December and in the cities of Ahmedabad, Bengaluru, Chennai, Delhi, Mumbai and Kolkata, but not necessarily following the above order. The brides' names were Geetika, Jasmine, Hema, Brinda, Ipsita and Veena, once again not following any order.

The following are some facts about their weddings.

- (i) Mridul's wedding took place in Chennai, however he was not married to Geetika or Veena
- (ii) Abhishek's wedding took place in Ahmedabad and Ranjan's in Delhi; however neither of them was married to Jasmine or Brinda
- (iii) The wedding in Kolkata took place in February
- (iv) Hema's wedding took place in April, but not in Ahmedabad
- (v) Geetika and Ipsita got married in February and November and in Chennai and Kolkata but not following the above order
- (vi) Pritam visited Bengaluru and Kolkata only after his marriage in December
- (vii) Salil was married to Jasmine to September

In the arrangement P26 M9 K S 4 V 7, the positions of the 1st and the 6th elements are interchanged, those of the 2nd and the 7th are interchanged, and so on. Then, which of the following will be the 4th element from the left end in the fresh, arrangement?

- A) M   B) 7   C) 4   D) 9    E) None of these

**Explanation:-**

	Mridul	Abhishek	Ranjan	Salil	Deepak	Pritam
Place	Chennai	Ahmedabad	Delhi	Bengaluru	Kolkata	Mumbai
Month	November	July	April	September	February	December
Brides	Ipsita	Veena	Hema	Jasmine	Geetika	Brinda

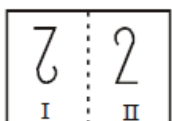
New arrangement would be as follows:

K S 4 V 7 P 2 6 M 9

∴ Fourth element is V in the new arrangement.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 31**

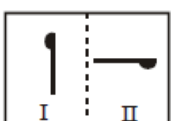


- A) B) C) D)  E)

**Explanation:-** From element I to II the design rotates through 180°

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 32**

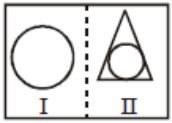


- A)  B) C) D) E)

**Explanation:-** From element I to II the design is mirror image after being rotated through 90° clockwise.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 33**

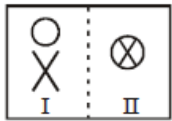


- A) B) C) D) E)

**Explanation:-** From element I to II the design is enclosed by another design.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 34**

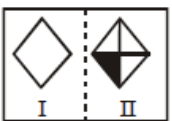


- A) B) C) D) E)

**Explanation:-** From element I to II the upper design encloses the lower design.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 35**



- A) B) C) D) E)

**Explanation:-** From element I to II the design is divided into four equal parts and the lower left part becomes shaded.

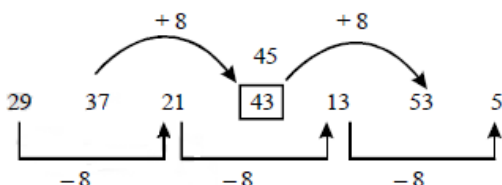
**DIRECTIONS for the question:** In the following series, one of the terms given is **wrong**. Find that term and mark that as your answer.

**Question No. : 36**

29, 37, 21, 43, 13, 53, 5

- A) 37 B) 53 C) 13 D) 21 E) 43

**Explanation:-**



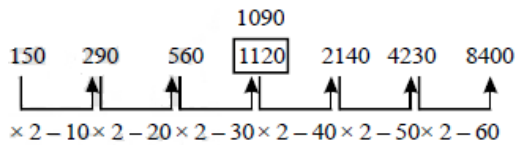
43 is the wrong term in the series.

**DIRECTIONS for the question:** In the following series, one of the terms given is **wrong**. Find that term and mark that as your answer.

**Question No. : 37**

150, 290, 560, 1120, 2140, 4230, 8400

A) 2140 B) 560  C) 1120 D) 4230 E) 290



**Explanation:-**

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 38**

The difference between the simple interest received from two different sources on Rs. 1500 for 3 years is Rs. 13.50. The difference between their rates of interest is:

A) 0.1% B) 0.2%  C) 0.3% D) 0.4% E) None of these

$$\left( \frac{1500 \times R_1 \times 3}{100} \right) - \left( \frac{1500 \times R_2 \times 3}{100} \right) = 13.50$$

**Explanation:-**

$$\Rightarrow 4500(R_1 - R_2) = 1350 \Rightarrow R_1 - R_2 = \frac{1350}{4500} = 0.3\%$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 39**

A man sells an article at 5% profit. If he had bought it at 5% less and sold it for Rs. 1 less, he would have gained 10%. The cost price of the article is :

A) Rs. 200 B) Rs. 150 C) Rs. 240 D) Rs. 280 E) None of these

**Explanation:-** Let the CP of the article be Rs.  $x$ .

$$\text{Then, SP} = ₹ \frac{105x}{100}$$

$$\text{Now, new CP} = ₹ \frac{95x}{100} \text{ and new SP} = \frac{105x}{100} - 1$$

According to the question

$$\frac{105x}{100} - 1 - \frac{95x}{100} = \frac{10 \times 95x}{100 \times 100}$$

$$\therefore x = \text{Rs. } 200$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 40**

On a journey across Bombay, a tourist bus averages 10 km/h for 20% of the distance, 30 km/h for 60% of it and 20 km/h for the remainder. The average speed for the whole journey was

A) 10 km/h B) 30 km/h C) 5 km/h  D) 20 km/h E) None of these

**Explanation:-** Let the average speed be  $x$  km/h.

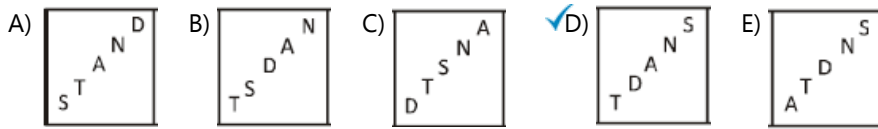
and Total distance =  $y$  km. Then,

$$\frac{0.2}{10}y + \frac{0.6}{30}y + \frac{0.2}{20}y = \frac{y}{x}$$

$$\Rightarrow x = \frac{1}{0.05} = 20 \text{ km/h}$$

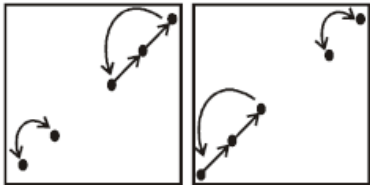
**DIRECTIONS for question:** In the problem, out of the five figures marked (a), (b), (c), (d) and (e), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.

**Question No. : 41**

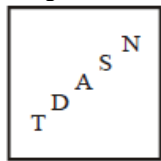


**Explanation:-** The following changes occur in the subsequent figures:

(1) to (2) (2) to (3) (3) to (4) (4) to (5)

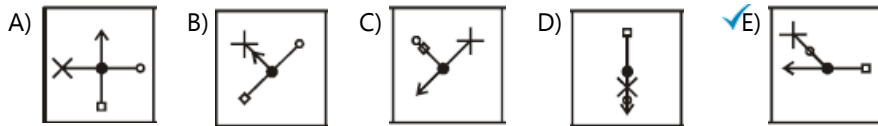


In Figure (4) the arrangement of designs would be as follows:



**DIRECTIONS for question:** In the problem, out of the five figures marked (a), (b), (c), (d) and (e), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.

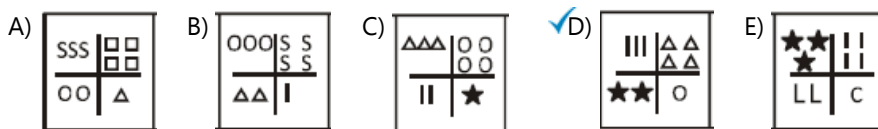
**Question No. : 42**



**Explanation:-** The line segment with cross rotates respectively through 45°, 90°, 135°, 180° ... in clockwise direction.

**DIRECTIONS for question:** In the problem, out of the five figures marked (a), (b), (c), (d) and (e), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.

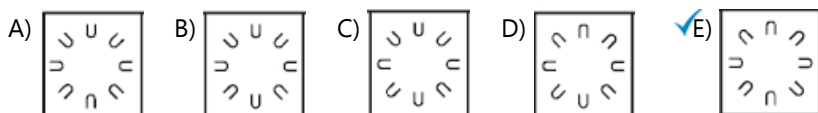
**Question No. : 43**



**Explanation:-** In each subsequent figure the designs move in clockwise direction and the number of designs at a particular position is fixed. Again, a new design appears at the lower right side. In figure (4), there should be design (L) in the place of circle at the lower right side.

**DIRECTIONS for question:** In the problem, out of the five figures marked (a), (b), (c), (d) and (e), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.

**Question No. : 44**



**Explanation:-** In the subsequent figures respectively one, two, three, four ..., curves are inverted in a set order. In Figure (e) five curves have been inverted.

**DIRECTION for the questions:** Which of the phrases given below the sentence should replace the word/phrase given in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, select 'No correction required' as your answer.

**Question No. : 45**

Seeing that there was an ongoing sale in one of her favourite stores, Seeta made a bee line for it immediately after entering the mall.

- A) made a bee's line for    B) make bees lined to    C) made a bee line to    D) make bee line to  
✓E) No correction required

**Explanation:-** Idiom make a beeline for something means : to go straight towards something / somebody as quickly as you can.

**DIRECTION for the questions:** Which of the phrases given below the sentence should replace the word/phrase given in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, select 'No correction required' as your answer.

**Question No. : 46**

Sharon made it to work in the nicks of times, or else she would have missed the meeting.

- ✓A) nick of time    B) nicked time    C) nick of timeliness    D) nick and time    E) No correction required

**Explanation:-** Idiom in the nick of time means : at the very last moment; just in time before something bad happens.

**DIRECTION for the questions:** Which of the phrases given below the sentence should replace the word/phrase given in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, select 'No correction required' as your answer.

**Question No. : 47**

Varun was on cloud nine after having stood first in his class.

- A) in ninth cloud    B) on nine clouds    C) a cloudy nine    D) cloud on nine    ✓E) No correction required

**Explanation:-** Idiom on cloud nine means : extremely happy.

**DIRECTION for the questions:** Which of the phrases given below the sentence should replace the word/phrase given in bold in the sentence to make it grammatically correct? If the sentence is correct as it is given and no correction is required, select 'No correction required' as your answer.

**Question No. : 48**

Vithal had a habit of pass the buck when it came to important issues at work.

- A) pass to bucking    B) passing buck    ✓C) passing the buck    D) pass buck    E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** In the sentence provided different ways of writing a sentence are indicated. Choose the best way of writing the sentence that is grammatically correct.

**Question No. : 49**

Puneet raked his brains and tried to find an answer to a tricky question given in the paper but couldn't find one.

- A) rake his brain    ✓B) racked his brains    C) racked brains    D) raked brain    E) No correction required

**Explanation:-** Idiom rack your brain (s) means : to think very hard or for a long time about something.

**DIRECTIONS for the question:** The question below contains three statements followed by three conclusions numbered I, II and III. You have to take the three given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts. Then decide which of the answers (A), (B), (C), (D) and (E) is the correct answer and indicate it on the answer sheet.

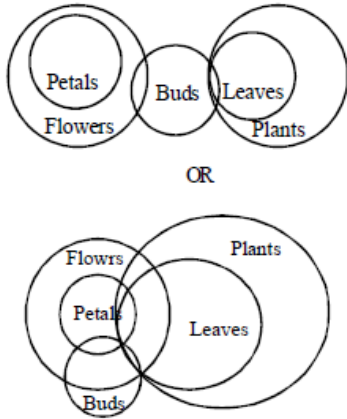
**Question No. : 50**

**Statements:** All petals are flowers. Some flowers are buds. Some buds are leaves. All leaves are plants.

**Conclusions:** I. Some petals are not buds. II. Some flowers are plants. III. No flower is plant.

- A) Only I follows     B) Either II or III follows    C) I and II follow    D) Only III follows    E) None of the above

**Explanation:-** According to question,



Conclusions

II false }  
III false } or

either conclusion I & conclusion II follows.

**DIRECTIONS for the question:** In the question below are given four Statements followed by three conclusions numbered I, II, and III. You have to take the given statements to be true even if they seem to be at a variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

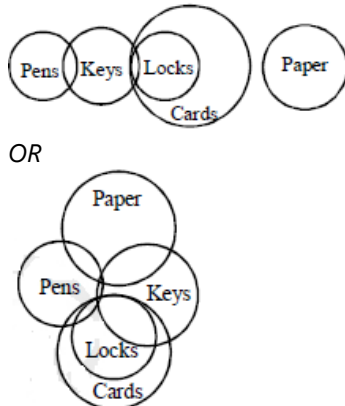
**Question No. : 51**

**Statements:** Some pens are keys. Some keys are locks. All locks are cards. No card is paper

**Conclusions:** I. No lock is paper. II. Some cards are keys. III. Some keys are not paper.

- A) I and II follow    B) Only I follows    C) Only II follows     D) All follow    E) None follows

**Explanation:-**



Conclusions I. True    II. True    III. True

**DIRECTIONS for the question:** In the question below are given four Statements followed by three conclusions numbered I, II, and III. You have to take the given statements to be true even if they seem to be at a variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Question No. : 52**

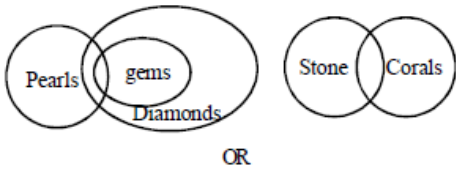
**Statements:** Some pearls are gems. All gems are diamonds. No diamond is stone. Some stones are corals.

**Conclusions:**

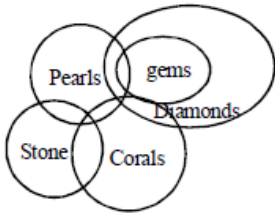
- I. Some stones are pearls.
- II. Some corals being diamond is a possibility.
- III. No stone is pearl.

- A) Only I follows    B) Only II follows    C) Either I or III follows    D) I and II follow     E) None of these

**Explanation:-** According to question,



OR



I False  
 Conclusion II True  
 III False } or

Hence, only conclusions II and either I or III follow.



**DIRECTIONS for the question:** In the question below are given four Statements followed by three conclusions numbered I, II, and III. You have to take the given statements to be true even if they seem to be at a variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

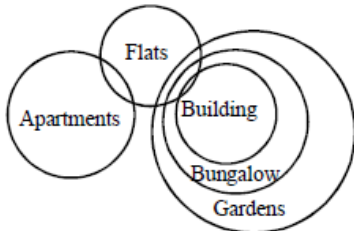
**Question No. : 53**

**Statements:** Some apartments are flats. Some flats are buildings. All buildings are bungalows. All bungalows are gardens.

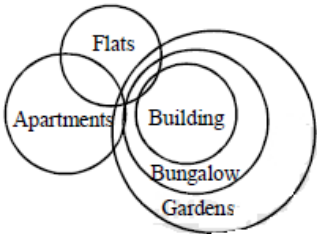
**Conclusions:** I. All apartments being building is a possibility      II. All bungalows are not buildings.      III. No flat is garden.

- A) None follows     B) Only I follows    C) Either I or III follows    D) II and III follow    E) Only II follows

**Explanation:-** According to question,



OR



Conclusions I. True, II. False, III. False  
Hence, only conclusion I follows.

**DIRECTIONS for the question:** In the question below are given four Statements followed by three conclusions numbered I, II, and III. You have to take the given statements to be true even if they seem to be at a variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Question No. : 54**

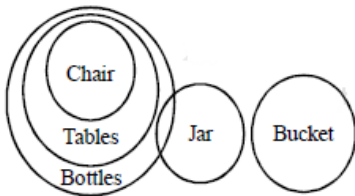
**Statements:** All chairs are tables. All tables are bottles. Some bottles are jars. No jar is bucket.

**Conclusions:**

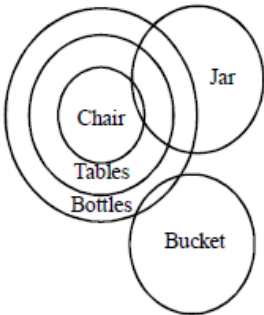
- I. Some tables being jar is a possibility.
- II. Some bottles are chairs.
- III. Some bottles are not bucket.

- A) Only I follows    B) I and II follow     C) All follow    D) Only II follows    E) None of these

**Explanation:-** According to the question



OR



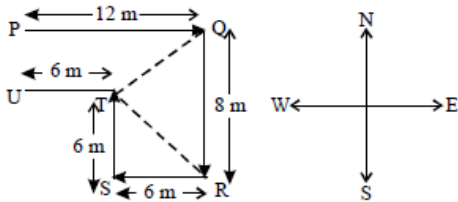
Conclusions, I. ✓, II. ✓, III. ✓  
Hence, All I, II and III follow.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 55**

A person starts from point P in East and moves 12 m to point Q. Then, he moves right 8 m to point R. Again he moves right for 6 m to point S. Then, he moves 6 m in the North to point T. Finally from there he goes to left for 6 m to point U. Which of three point he would form a triangle whose all the angles are less than 90°?

- A) PTQ     B) QTR    C) UTS    D) TSR    E) SQR



**Explanation:-**

Therefore, three points Q, T and R, would form a triangle whose all the angles are less than 90°.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 56**

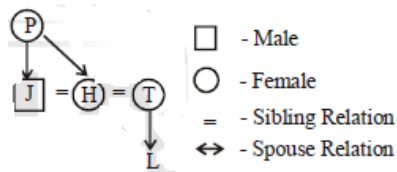
- If  $A + B$  means A is the father of B
- If  $A \times B$  means A is the sister of B
- If  $A \$ B$  means A is the wife of B
- If  $A \% B$  means A is the mother of B
- If  $A \div B$  means A is the son of B

What should come in place of the question mark, to establish that J is the brother of T in the expression?  
 $J \div P \% H ? T \% L$

- A)  $\times$     B)  $\div$     C)  $\$$     D) Either  $\div$  or  $\times$     E) Either  $+$  or  $\div$

**Explanation:-**  $A \times B \Rightarrow A$  is the sister of B.  
 $A \$ B \Rightarrow A$  is the wife of B.  
 $A \% B \Rightarrow A$  is the mother of B.  
 $A \div B \Rightarrow A$  is the son of B.

$J \div P \% H \times T \% L$  can be represented in diagram. As follows



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 57**

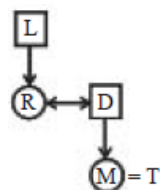
- If  $A + B$  means A is the father of B
- If  $A \times B$  means A is the sister of B
- If  $A \$ B$  means A is the wife of B
- If  $A \% B$  means A is the mother of B
- If  $A \div B$  means A is the son of B

Which among the given expressions indicate that M is the daughter of D?

- A)  $L \% R \$ D + T \times M$      B)  $L + R \$ D + M \times T$     C)  $L \% R \% D + T \div M$     D)  $D + L \$ R + M \times T$     E)  $L \$ D \div R \% M \div T$

**Explanation:-**  $A \times B \Rightarrow A$  is the sister of B.  
 $A \$ B \Rightarrow A$  is the wife of B.  
 $A \% B \Rightarrow A$  is the mother of B.  
 $A \div B \Rightarrow A$  is the son of B.

$L + R \$ D + M \times T$



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 58**

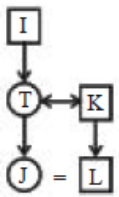
- If  $A + B$  means A is the father of B
- If  $A \times B$  means A is the sister of B
- If  $A \$ B$  means A is the wife of B
- If  $A \% B$  means A is the mother of B
- If  $A \div B$  means A is the son of B

Which among the following options is true if the expression ' $I + T \% J \times L \div K$ ' is **definitely true**?

- A) L is the daughter of T
- B) K is the son-in-law of I
- C) I is the grandmother of L
- D) T is the father of L
- E) J is the brother of L

**Explanation:-**  $A \times B \Rightarrow A$  is the sister of B.  
 $A \$ B \Rightarrow A$  is the wife of B.  
 $A \% B \Rightarrow A$  is the mother of B.  
 $A \div B \Rightarrow A$  is the son of B.

$$I + T \% J \times L \div K$$



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 59**

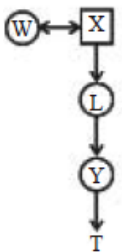
- If  $A + B$  means A is the father of B
- If  $A \times B$  means A is the sister of B
- If  $A \$ B$  means A is the wife of B
- If  $A \% B$  means A is the mother of B
- If  $A \div B$  means A is the son of B

Which among the following expression is true if Y is the son of X is **definitely false**?

- A)  $W \% L \times T \times Y \div X$
- B)  $W + L \times T \times Y \div X$
- C)  $X + L \times T \times Y \div W$
- D)  $W \$ X + L + Y + T$
- E)  $W \% X + T \times Y \div L$

**Explanation:-**  $A \times B \Rightarrow A$  is the sister of B.  
 $A \$ B \Rightarrow A$  is the wife of B.  
 $A \% B \Rightarrow A$  is the mother of B.  
 $A \div B \Rightarrow A$  is the son of B.

$$W \$ X + L + Y + T$$



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 60**

- If A + B means A is the father of B
- If A × B means A is the sister of B
- If A \$ B means A is the wife of B
- If A % B means A is the mother of B
- If A ÷ B means A is the son of B

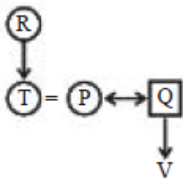
What should come in place of the question mark, to establish that T is the sister-in-law of Q in the expression?

$R \% T \times P ? Q + V$

- A) ÷    B) %    C) ×     D) \$    E) Either \$ or ×

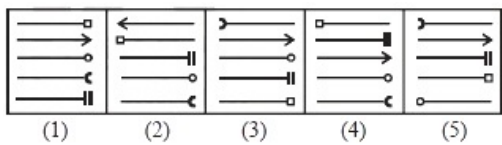
**Explanation:-**  $A \times B \Rightarrow A$  is the sister of  $B$ .  
 $A \$ B \Rightarrow A$  is the wife of  $B$ .  
 $A \% B \Rightarrow A$  is the mother of  $B$ .  
 $A \div B \Rightarrow A$  is the son of  $B$ .

$R \% T \times P \$ Q + V$



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 61**



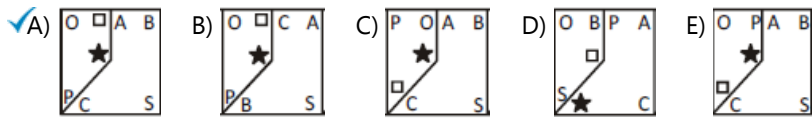
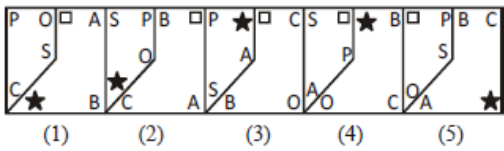
- A)    B)    C)     D)    E)

**Explanation:-**

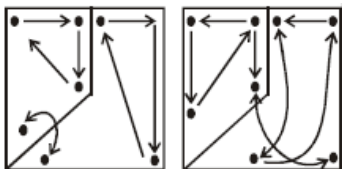
In the subsequent figures two and three designs are inverted alternately. From problems Figure (1) to (2) the first and the second designs from the top interchange positions and the lowermost design moves to the middle position. From problem Figure (2) and (3) the lowermost design moves to the top and the second design from the top moves to the lowermost position while the third and the fourth designs interchange positions. From problem Figure (3) to (4) the top most and the lowermost designs interchange positions and the fourth design moves to the second position. From Problem Figure (4) to (5) the topmost design moves to the fourth position, the lowermost design moves to the topmost position while the second and the third designs interchange positions. Therefore, from problem Figure (5) to Answer Figure the third and the fourth designs would interchange positions and would be inverted, the lowermost design would move to the top position and the second design from the top would move to the lowermost position.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

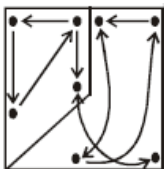
**Question No. : 62**



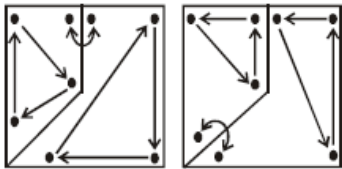
**Explanation:-** The following changes occur in the subsequent figures:  
(1) to (2) (2) to (3)



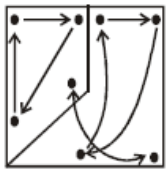
(3) to (4)



(4) to (5)

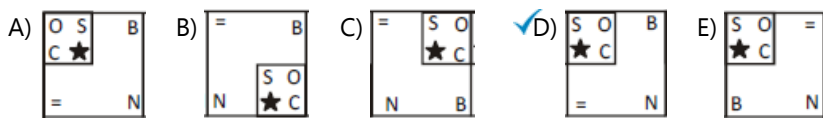
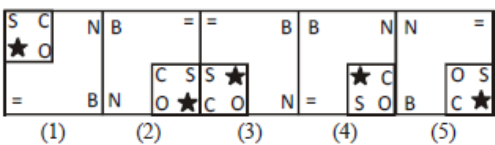


(5) to (6)



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 63**

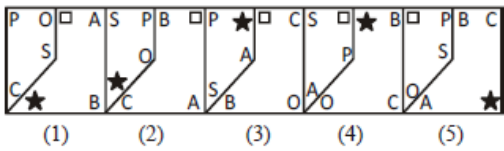


**Explanation:-**

From problem Figure (1) to (2) and from problem Figure (5) to Answer Figure the smaller square with four designs moves two steps in anticlockwise direction and the designs in each row interchange positions. The other three designs move two steps in clockwise direction.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 64**

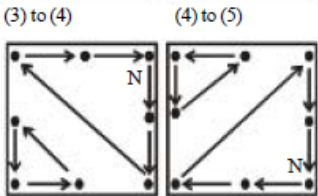
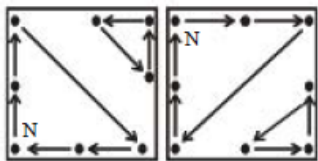


- A) B) C) D) E)

**Explanation:-** The following changes occur in the subsequent figures:

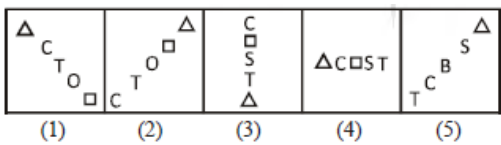
(1) to (2) (2) to (3)

(5) to (6)



**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 65**

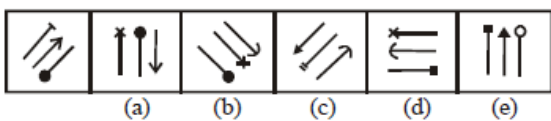


- A) B) C) D) E)

**Explanation:-** From problem Figure (1) to (2) the plane of designs rotates through 90° clockwise and the second and the fifth designs interchange positions. Similarly, the third and the fourth designs interchange positions. Similar changes occur from Problem Figure (3) to (4) and from problem figure (5) to Answer Figure.

**DIRECTION for the question:** The following question consists of six figures, the first of which is unnumbered and marks the beginning of the series continued in the successive figures numbered from (a) to (e). However, the series will be established only if the positions of two of the numbered figures are interchanged. The number of the first of the two figures is the answer. If no figure needs to be interchanged then the answer is (e).

**Question No. : 66**



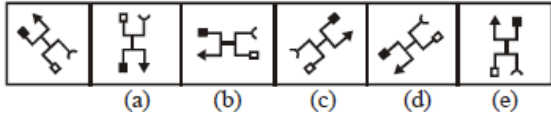
- A) (a) B) (b) C) (c) D) (d) E) (e)

**Explanation:-** The central element interchanges place alternately with the element on either side and gets inverted while the third one is replaced by a new one. The whole figure rotates by 45° ACW in each step. The correct figure is



**DIRECTION for the question:** The following question consists of six figures, the first of which is unnumbered and marks the beginning of the series continued in the successive figures numbered from (a) to (e). However, the series will be established only if the positions of two of the numbered figures are interchanged. The number of the first of the two figures is the answer. If no figure needs to be interchanged then the answer is (e).

**Question No. : 67**

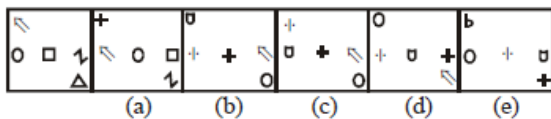


- ✓A) (a) B) (b) C) (c) D) (d) E) (e)

**Explanation:-** The whole figure rotates by 45°, 90°, 135°, 180° ACW in subsequent steps. while the end elements interchange their places alternately on either end in subsequent steps.

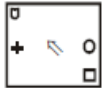
**DIRECTION for the question:** The following question consists of six figures, the first of which is unnumbered and marks the beginning of the series continued in the successive figures numbered from (a) to (e). However, the series will be established only if the positions of two of the numbered figures are interchanged. The number of the first of the two figures is the answer. If no figure needs to be interchanged then the answer is (e).

**Question No. : 68**



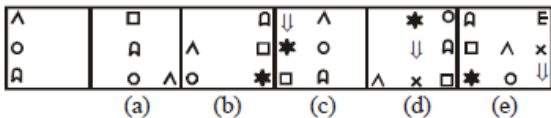
- A) (a) ✓B) (b) C) (c) D) (d) E) (e)

**Explanation:-** In each step the elements move one step downwards and towards right. A new element appears at the top-left position while the lower one is lost. The correct figure of (b) is



**DIRECTION for the question:** The following question consists of six figures, the first of which is unnumbered and marks the beginning of the series continued in the successive figures numbered from (a) to (e). However, the series will be established only if the positions of two of the numbered figures are interchanged. The number of the first of the two figures is the answer. If no figure needs to be interchanged then the answer is (e).

**Question No. : 69**

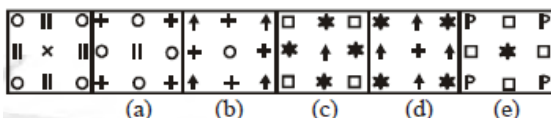


- A) (a) B) (b) C) (c) D) (d) ✓E) (e)

**Explanation:-** The column of elements moves half-a-side from left to right. The central element interchanges alternately with upper and lower elements and the third element is placed at the lower end of the next column.

**DIRECTION for the question:** The following question consists of six figures, the first of which is unnumbered and marks the beginning of the series continued in the successive figures numbered from (a) to (e). However, the series will be established only if the positions of two of the numbered figures are interchanged. The number of the first of the two figures is the answer. If no figure needs to be interchanged then the answer is (e).

**Question No. : 70**



- A) (a) B) (b) ✓C) (c) D) (d) E) (e)

**Explanation:-** In each step the similar corner elements move to middle of the sides while one of the middle elements moves to the centre. New elements appear at the corners. The correct figure of (c) is





**DIRECTION for the question:** In the question below, two sentences are given. These two sentences are to be combined into a single sentence without changing their meaning. Three probable starters of the so combined sentence are given which are denoted by (A), (B) and (C). Any one or more or none of them may be correct. Find out the correct starter(s), if any, and accordingly select your answer from among the given five answer choices.

**Question No. : 71**

He has lost his immunity. Therefore, he is vulnerable to any disease.

- (A) His loss of immunity.... (B) Because of his vulnerability to his... (C) His vulnerability to any disease...  
A) Only (A) B) Only (B) C) Only (C) D) Only (A) and (C) E) Only (A) and (B)

**Explanation:-**

**DIRECTION for the question:** In the question below, two sentences are given. These two sentences are to be combined into a single sentence without changing their meaning. Three probable starters of the so combined sentence are given which are denoted by (A), (B) and (C). Any one or more or none of them may be correct. Find out the correct starter(s), if any, and accordingly select your answer from among the given five answer choices.

**Question No. : 72**

You must sign your railway ticket, write your name and age on it. It becomes valid only after that.

- (A) To make your railway ticket valid, the railway authorities should sign...  
(B) Without validating your railway ticket, you cannot...  
(C) To validate your railway ticket, you must...  
A) Only (A) B) Only (B) C) Only (C) D) (A) and (B) only E) (B) and (C) only

**Explanation:-**

**DIRECTION for the question:** In the question below, two sentences are given. These two sentences are to be combined into a single sentence without changing their meaning. Three probable starters of the so combined sentence are given which are denoted by (A), (B) and (C). Any one or more or none of them may be correct. Find out the correct starter(s), if any, and accordingly select your answer from among the given five answer choices.

**Question No. : 73**

Are you satisfied with this information? Please contact me for any further clarification.

- (A) If you need... (B) In case you need... (C) Should you need...  
A) None B) All the three C) (A) and (C) only D) (A) and (B) only E) (B) and (C) only

**Explanation:-**

**DIRECTION for the question:** In the question below, two sentences are given. These two sentences are to be combined into a single sentence without changing their meaning. Three probable starters of the so combined sentence are given which are denoted by (A), (B) and (C). Any one or more or none of them may be correct. Find out the correct starter(s), if any, and accordingly select your answer from among the given five answer choices.

**Question No. : 74**

How much you earn is less important. What is more important is how you earn, i.e., your methods of earning?

- (A) How you earn is as important (B) How much you earn is as important (C) How you earn is not as important  
A) Only (A) B) Only (B) C) Only (C) D) All the three E) None of these

**Explanation:-**

## Actual MH-CET 2014

**DIRECTION for the question:** In the question below, two sentences are given. These two sentences are to be combined into a single sentence without changing their meaning. Three probable starters of the so combined sentence are given which are denoted by (A), (B) and (C). Any one or more or none of them may be correct. Find out the correct starter(s), if any, and accordingly select your answer from among the given five answer choices.

**Question No. : 75**

You must submit the proof of your being a US citizen. Only then your NRI account will be made operative.

- (A) Unless you prove...      (B) Unless your NRI account is made operative...      (C) Without your NRI account, you must...

- ✓A) Only (A)    B) Only (B)    C) Only (C)    D) All the three    E) None of these

**Explanation:-**

**Question No. : 76**

Letters	P	M	A	E	J	K	D	R	W	H	I	U	T	F
Digits/symbols	4	\$	1	2	3	#	5	@	©	6	%	8	7	9
Conditions														

- (i) If the first letter is a consonant and the last letter is a vowel, the codes of both these are to be interchanged.  
 (ii) If both the first and the last letters are consonants both these are to be coded as per the code of the last letter.  
 (iii) If the first letter is vowel and the last letter is a consonant both these are to be coded as '\*'

**Note:** All the remaining letters are to be coded as per their original codes.

ERWHKA

- ✓A) 2@©6#1    B) 1@©6#2    C) 1@©6#I    D) 2@©6#2    E) None of these

Letter series	E	R	W	H	K	A
	↓	↓	↓	↓	↓	↓
Code	2	@	©	6	#	1
without condition	2	@	©	6	#	1

**Explanation:-**

**Question No. : 77**

Letters	P	M	A	E	J	K	D	R	W	H	I	U	T	F
Digits/symbols	4	\$	1	2	3	#	5	@	©	6	%	8	7	9
Conditions														

- (i) If the first letter is a consonant and the last letter is a vowel, the codes of both these are to be interchanged.  
 (ii) If both the first and the last letters are consonants both these are to be coded as per the code of the last letter.  
 (iii) If the first letter is vowel and the last letter is a consonant both these are to be coded as '\*'

**Note:** All the remaining letters are to be coded as per their original codes.

MPEKDU

- A) \$42#58    B) \$42#5\$    C) 842#58    D) 8425#\$    ✓E) None of these

Letter series	M	P	E	K	D	U
	↓	↓	↓	↓	↓	↓
Code	\$	4	2	#	5	8
According to condition (i)	8	4	2	#	5	\$

**Explanation:-**

**Question No. : 78**

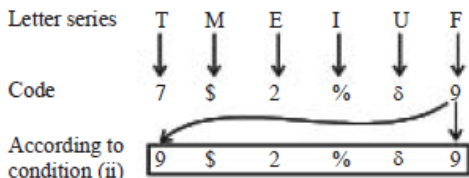
Letters	P	M	A	E	J	K	D	R	W	H	I	U	T	F
Digits/symbols	4	\$	1	2	3	#	5	@	6	%	8	7	9	
Conditions														

- (i) If the first letter is a consonant and the last letter is a vowel, the codes of both these are to be interchanged.
- (ii) If both the first and the last letters are consonants both these are to be coded as per the code of the last letter.
- (iii) If the first letter is vowel and the last letter is a consonant both these are to be coded as '\*'

**Note:** All the remaining letters are to be coded as per their original codes.

TMEIUF

- A) 7\$2%89    B) 7\$2%87    C) 9\$2%87     D) 9\$2%89    E) None of these



**Explanation:-**

**Question No. : 79**

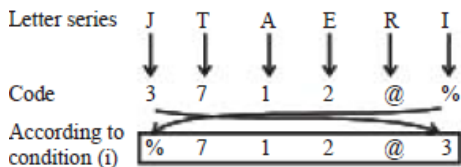
Letters	P	M	A	E	J	K	D	R	W	H	I	U	T	F
Digits/symbols	4	\$	1	2	3	#	5	@	6	%	8	7	9	
Conditions														

- (i) If the first letter is a consonant and the last letter is a vowel, the codes of both these are to be interchanged.
- (ii) If both the first and the last letters are consonants both these are to be coded as per the code of the last letter.
- (iii) If the first letter is vowel and the last letter is a consonant both these are to be coded as '\*'

**Note:** All the remaining letters are to be coded as per their original codes.

JTAERI

- A) %712@3    B) 3712@3    C) 712@    D) %712@%    E) None of these



**Explanation:-**

**Question No. : 80**

Letters	P	M	A	E	J	K	D	R	W	H	I	U	T	F
Digits/symbols	4	\$	1	2	3	#	5	@	6	%	8	7	9	
Conditions														

- (i) If the first letter is a consonant and the last letter is a vowel, the codes of both these are to be interchanged.
- (ii) If both the first and the last letters are consonants both these are to be coded as per the code of the last letter.
- (iii) If the first letter is vowel and the last letter is a consonant both these are to be coded as '\*'

**Note:** All the remaining letters are to be coded as per their original codes.

UKTMIH

- A) #7\$%6    B) 6#7\$%8     C) \*#7\$%\*    D) 7#7\$%6    E) None of these



**Explanation:-**

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 81**

What will be the cost of the second necklace?

- I. The cost of the first necklace is more than  $\frac{1}{5}$  of the second and the cost of the third necklace is more than  $\frac{2}{5}$  of the second. The total cost of all the three necklaces is Rs. 120000.  
II. The cost of the first necklace is  $\frac{2}{5}$  more than the second. The total cost of all the three necklaces is Rs. 120000.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
D) if the data in both the statements I and II together are not sufficient to answer the question.  
E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From statement I,  
Ratio of the costs of first, second and third necklace is  $6 : 5 : 7$ . The total price of all the three necklaces is 120000.  
Hence, the price of second necklace can be calculated.

From statement II,  
Ratio of first and second necklace =  $7 : 5$ . We do not know anything about the third necklace.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 82**

How many children are there in the class?

- I. Numbers of boys and girls are in the respective ratio of 3 : 4.  
II. Number of girls is more than the number of boys by 18.  
A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
D) if the data in both the statements I and II together are not sufficient to answer the question.  
 E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I: Ratio of boys and girls =  $3k : 4k$   
From II: No of girls – No of boys = 18

From I and II:

$$4k - 3k = 18 \Rightarrow k = 18$$
$$\text{Total children} = 4k + 3k = 18 \times 7 = 126$$

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 83**

What was the population of State 'A' in 1999?

- I. Population of the State increases every year by 20% and its population in 1997 was 1,20,000.
- II. Population of State A in 1997 was twice that of State B in the same year.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
- C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
- D) if the data in both the statements I and II together are not sufficient to answer the question.
- E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From statement I,

$$\text{Population in 1999} = 120000(1.2)^2 = 172800.$$

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 84**

What is the cost of laying carpet in a rectangular hall?

- I. Cost of the carpet is Rs. 450 per square metre.
- II. Perimeter of the hall is 50 metres.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
- C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
- D) if the data in both the statements I and II together are not sufficient to answer the question.
- E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** To find out the cost of laying carpet we need (i) cost of carpet per square metre (which is given) and, (ii) Area of the floor to be carpeted (which can't be calculated even using both the statements).

Therefore, the data in both the statements I and II together are not sufficient to answer the question.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 85**

What is the rate of interest p.c.p.a.?

- I. Difference between compound interest and simple interest on an amount of Rs. 10,000 for two years is Rs. 225.  
 II. The amount doubles itself on simple interest in 6 (2/3) years.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
 B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
 C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
 D) if the data in both the statements I and II together are not sufficient to answer the question.  
 E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I:

We know, if we have been given difference of CI and SI during two years, then this difference (D) is equal to

$$\frac{P \times r^2}{100^2} \text{ where } P = \text{Principal} \quad r = \text{rate of interest}$$

$$225 = 10000 \times r^2 / 100 \times 100 \Rightarrow r = 15\%$$

Hence, I alone is sufficient.

From statement II:

$$\text{Again we know SI} = \frac{P \times R \times T}{100}$$

$$\text{Let } P = 100 \Rightarrow A = 200 \Rightarrow I = 100$$

$$100 = (100 \times R \times 20) / 3 \times 100 \Rightarrow R = 15\%$$

Hence, we can get rate of interest from II alone also.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 86**

Among M, K, B, D and W, who is the youngest?

- I. B is younger than D.  
 II. W is younger than K but older than M.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
 B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
 C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
 D) if the data in both the statements I and II together are not sufficient to answer the question.  
 E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I and II: We get

$$D > B \dots (i)$$

$$K > W > M \dots (ii)$$

Still, we lack some clue as to whether B or M is the youngest. Hence, both statements I and II even together are not sufficient.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 87**

What does 'Ne' stands for in the code language?

- I. 'Na Ni Nok Ne' means 'I will tell you' and 'Ni Nok Ne Nam' means 'he will tell you' in that code language.  
II. 'Ni Ne Mo Nam' means 'will he call you' and 'Ne Mok Sac Ni' means 'how will you go' in that code language.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
✓D) if the data in both the statements I and II together are not sufficient to answer the question.  
E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I: Na Ni Nok Ne → I will tell you ... (i)  
Ni Nok Ne Nam → he will tell you ... (ii)  
From (i) & (ii) Na → I and Nam = he

From II: Ni Ne Mo Nam ® will he call you ... (iii)  
Ne Mok Sac Ni ® how will you go ... (iv)  
Ne Ni is common in all the four statements. Exact transformation of Ne can't be determined.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 88**

Who amongst P, Q, R, S, T and U is the tallest?

- I. P is taller than R and T but not as tall as U, who is taller than Q and S.  
II. R is the third in height in the ascending order and not as tall as U, P and Q, Q being taller than P but not the tallest.  
A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
✓C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
D) if the data in both the statements I and II together are not sufficient to answer the question.  
E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I:  $P > R, P > T, U > P, U > Q, U > S$   
→ U is tallest. [Since U is taller than P, Q & S and P is taller than R and T]

From II:  $R < U, P \& Q \dots (i); Q > P \dots (ii)$   
From (i) and (ii)  $R < P < Q < U$   
Hence U is tallest.

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 89**

Who is paternal uncle of P?

- I. P is brother of L, who is daughter of Q, who is sister of N, who is brother of S.  
 II. M is brother of K, who is husband of L, who is mother of G, who is sister of P.

- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
 B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
 C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
 D) if the data in both the statements I and II together are not sufficient to answer the question.  
 E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I : Q(-) — N (+) — S

|  
 P (+) — L(-)

N is maternal uncle of P, but nothing can be said about S.

From II : (+) M — (+)K — L(-)

|  
 G (-)

M is the paternal uncle of P

**DIRECTIONS for the question:** The question below consist of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and mark

**Question No. : 90**

What is Sudin's rank in the class of 44 students?

- I. Ramesh, whose rank is 17th in the class, is ahead of Shyam by 6 ranks, Shyam being 7 ranks ahead of Sudin.  
 II. Suketu is 26 ranks ahead of Sudin and Shyamala is 6 ranks behind Sudin while Savita stands exactly in the middle of Shyamala and Suketu in ranks, her rank being 17.

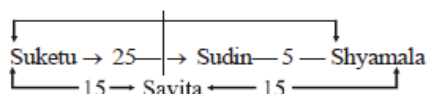
- A) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.  
 B) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.  
 C) if the data either in statement I alone or in statement II alone are sufficient to answer the question.  
 D) if the data in both the statements I and II together are not sufficient to answer the question.  
 E) if the data in both the statements I and II together are necessary to answer the question.

**Explanation:-** From I : Ramesh = 17th

=> Shyam = (17 + 6) = 23rd

Sudin = (23 + 7 =) 30th

From II: Savita = 17th





**DIRECTIONS for the question:** Rearrange the following sentences (A), (B), (C), (D), (E) and (F) into a meaningful paragraph and then answer the question given below it.

**Question No. : 91**

- (A) The group desired to enhance the learning experience in schools with an interactive digital medium that could be used within and outside the class-room  
(B) Then the teacher can act on the downloaded data rather than collect it from each and every student and thereby save his time and effort.  
(C) Eductor, decided the group of engineers, all alumni of the Indain Institute of technology, when the founded Eductor Technologies in August 2009.  
(D) They can even take tests and submit them digitally using the same tablets and the teachers in turn can download the tests using the company's cloud services.  
(E) With this desire they created a solution that digitizes school textbooks and other learning materials so that students no longer need to carry as many books to school and back as before, but can access their study material on their touchscreen tablets.  
(F) A mechanic works on motors and an accountant has his computer. Likewise, if a student has to work on a machine or device, what should it be called?

Which of the following sentences should be the FIRST after rearrangement?

- A) F   B) D   C) A   D) C   E) E

**Explanation:-** sentence F is first ( correct sequence- F,C,A,E,D,B)

**DIRECTIONS for the question:** Rearrange the following sentences (A), (B), (C), (D), (E) and (F) into a meaningful paragraph and then answer the question given below it.

**Question No. : 92**

- (A) The group desired to enhance the learning experience in schools with an interactive digital medium that could be used within and outside the class-room  
(B) Then the teacher can act on the downloaded data rather than collect it from each and every student and thereby save his time and effort.  
(C) Eductor, decided the group of engineers, all alumni of the Indain Institute of technology, when the founded Eductor Technologies in August 2009.  
(D) They can even take tests and submit them digitally using the same tablets and the teachers in turn can download the tests using the company's cloud services.  
(E) With this desire they created a solution that digitizes school textbooks and other learning materials so that students no longer need to carry as many books to school and back as before, but can access their study material on their touchscreen tablets.  
(F) A mechanic works on motors and an accountant has his computer. Likewise, if a student has to work on a machine or device, what should it be called?

Which of the following sentences should be the THIRD after rearrangement?

- A) A   B) B   C) D   D) E   E) F

**Explanation:-** A is the third sentence

**DIRECTIONS for the question:** Rearrange the following sentences (A), (B), (C), (D), (E) and (F) into a meaningful paragraph and then answer the question given below it.

**Question No. : 93**

- (A) The group desired to enhance the learning experience in schools with an interactive digital medium that could be used within and outside the class-room
- (B) Then the teacher can act on the downloaded data rather than collect it from each and every student and thereby save his time and effort.
- (C) Eductor, decided the group of engineers, all alumni of the Indain Institute of technology, when the founded Eductor Technologies in August 2009.
- (D) They can even take tests and submit them digitally using the same tablets and the teachers in turn can download the tests using the company's cloud services.
- (E) With this desire they created a solution that digitizes school textbooks and other learning materials so that students no longer need to carry as many books to school and back as before, but can access their study material on their touchscreen tablets.
- (F) A mechanic works on motors and an accountant has his computer. Likewise, if a student has to work on a machine or device, what should it be called?

Which of the following sentences should be the SIXTH (LAST) after rearrangement?

- A) A   B) F   C) E    D) B   E) D

**Explanation:-** sentence B will be the correct answer.

**DIRECTIONS for the question:** Rearrange the following sentences (A), (B), (C), (D), (E) and (F) into a meaningful paragraph and then answer the question given below it.

**Question No. : 94**

- (A) The group desired to enhance the learning experience in schools with an interactive digital medium that could be used within and outside the class-room
- (B) Then the teacher can act on the downloaded data rather than collect it from each and every student and thereby save his time and effort.
- (C) Eductor, decided the group of engineers, all alumni of the Indain Institute of technology, when the founded Eductor Technologies in August 2009.
- (D) They can even take tests and submit them digitally using the same tablets and the teachers in turn can download the tests using the company's cloud services.
- (E) With this desire they created a solution that digitizes school textbooks and other learning materials so that students no longer need to carry as many books to school and back as before, but can access their study material on their touchscreen tablets.
- (F) A mechanic works on motors and an accountant has his computer. Likewise, if a student has to work on a machine or device, what should it be called?

Which of the following sentences should be the FOURTH after rearrangement?

- A) A   B) F    C) E   D) B   E) D

**Explanation:-** E

**DIRECTIONS for the question:** Rearrange the following sentences (A), (B), (C), (D), (E) and (F) into a meaningful paragraph and then answer the question given below it.

**Question No. : 95**

- (A) The group desired to enhance the learning experience in schools with an interactive digital medium that could be used within and outside the class-room  
 (B) Then the teacher can act on the downloaded data rather than collect it from each and every student and thereby save his time and effort.  
 (C) Eductor, decided the group of engineers, all alumni of the Indain Institute of technology, when the founded Eductor Technologies in August 2009.  
 (D) They can even take tests and submit them digitally using the same tablets and the teachers in turn can download the tests using the company's cloud services.  
 (E) With this desire they created a solution that digitzes school textbooks and other learning materials so that students no longer need to carry as many books to school and back as before, but can access their study material on their touchscreen tablets.  
 (F) A mechanic works on motors and an accountant has his computer. Likewise, if a student has to work on a machine or device, what should it be called?

Which of the following sentences should be the FIFTH after rearrangement?

- A) A     B) D    C) C    D) E    E) F

**Explanation:-** D

**DIRECTIONS for the question:** In the question, some symbols are used which define the relationship between two categories. Using those, solve the question and mark

**Question No. : 96**

- 'A @ B ' means 'A is not smaller then B'.  
 'A # B ' means 'A is neither smaller than nor equal to B'.  
 'A \$ B' means 'A is neither greater than nor smaller than B'.  
 'A % B' means 'A is not greater than B'.  
 'A ★ B' means 'A is neither greater than nor equal to B'.

**Statements:** V \$ Y, Y @ Z, Z % X, X # T

**Conclusions:** I. T # Z    II. X # Y    III. Z ★ Y

- A) None follows    B) Only I follows    C) II and III follow    D) I and III follow    E) Only III follows

★ ⇒ <	# ⇒ >	@ ⇒ ≥
% ⇒ ≤	\$ ⇒ =	

**Explanation:-**

- V \$ Y ⇒ V = Y  
 Y @ Z ⇒ Y ≥ Z  
 Z % X ⇒ Z ≤ X  
 X # T ⇒ X > T

From all above statements,

$$V = Y \geq Z \leq X > T$$

Conclusions I. T # Z ⇒ T > Z (False)

II. X # Y ⇒ X > Y (False)

III. Z ★ Y ⇒ Z < Y (False)

None follows.

**DIRECTIONS for the question:** In the question, some symbols are used which define the relationship between two categories. Using those, solve the question and mark

**Question No. : 97**

- 'A @ B ' means 'A is not smaller than B'.
- 'A # B ' means 'A is neither smaller than nor equal to B'.
- 'A \$ B ' means 'A is neither greater than nor smaller than B'.
- 'A % B ' means 'A is not greater than B'.
- 'A ★ B ' means 'A is neither greater than nor equal to B'.

**Statements:** R @ J, J % F, F ★ E, E % M

**Conclusions:** I. M # J      II. F % M      III. M ★ R

- ✓A) Only I follows    B) Only II follows    C) Only III follows    D) I and II follow    E) All follow

★ ⇒ <	# ⇒ >	@ ⇒ ≥
% ⇒ ≤	\$ ⇒ =	

**Explanation:-**

- R @ J ⇒ R ≥ J
- J % F ⇒ J ≤ F
- F ★ E ⇒ F < E
- E % M ⇒ E ≤ M

From all above statements,  
R ≥ J ≤ F < E ≤ M

- Conclusions I: M # J ⇒ M > J (True)
- II. F % M ⇒ F ≤ M (False)
- III. M ★ R ⇒ M < R (False)

Only (I) follows.

**DIRECTIONS for the question:** In the question, some symbols are used which define the relationship between two categories. Using those, solve the question and mark

**Question No. : 98**

- 'A @ B ' means 'A is not smaller than B'.
- 'A # B ' means 'A is neither smaller than nor equal to B'.
- 'A \$ B ' means 'A is neither greater than nor smaller than B'.
- 'A % B ' means 'A is not greater than B'.
- 'A ★ B ' means 'A is neither greater than nor equal to B'.

**Statements:** H#R, R@L, L ★ W, W%F

**Conclusions:** I. H # J      II. F # L      III. H \$ F

- A) Only I follows    ✓B) I and II follow    C) II and III follow    D) Either I or II follows    E) All follow

★ ⇒ <	# ⇒ >	@ ⇒ ≥
% ⇒ ≤	\$ ⇒ =	

**Explanation:-**

- H # R ⇒ H > R
- R @ L ⇒ R ≥ L
- L ★ W ⇒ L < W
- W % F ⇒ W ≤ F

From all above statements,  
H > R ≥ L < W ≤ F

- Conclusions I. H # L ⇒ H > L (True)
- II. F # L ⇒ F > L (True)
- III. H \$ F ⇒ H = F (False)

Thus I & II follows.

**DIRECTIONS for the question:** In the question, some symbols are used which define the relationship between two categories. Using those, solve the question and mark

**Question No. : 99**

'A @ B ' means 'A is not smaller than B'.  
 'A # B ' means 'A is neither smaller than nor equal to B'.  
 'A \$ B ' means 'A is neither greater than nor smaller than B'.  
 'A % B ' means 'A is not greater than B'.  
 'A ★ B ' means 'A is neither greater than nor equal to B'.

**Statements:** M # K, M \$ F, F % Q, Q ★ H

**Conclusions:** I. H # K      II. Q # K      III. Q @ M

A) I and II follow    B) Either I or II follows     C) All follow    D) II and III follow    E) None of the above

★ ⇒ <	# ⇒ >	@ ⇒ ≥
% ⇒ ≤	\$ ⇒ =	

**Explanation:-**

$M \# K \Rightarrow M > K$   
 $M \$ F \Rightarrow M = F$   
 $F \% Q \Rightarrow F \leq Q$   
 $Q \star H \Rightarrow Q < H$

From all above statements,  
 $K < M = F \leq Q < H$

Conclusions. I.  $H \# K \Rightarrow H > K$  (True)  
 II.  $Q \# K \Rightarrow Q > K$  (True)  
 III.  $Q @ M \Rightarrow Q \geq M$  (True)

So, all follow.

**DIRECTIONS for the question:** In the question, some symbols are used which define the relationship between two categories. Using those, solve the question and mark

**Question No. : 100**

'A @ B ' means 'A is not smaller than B'.  
 'A # B ' means 'A is neither smaller than nor equal to B'.  
 'A \$ B ' means 'A is neither greater than nor smaller than B'.  
 'A % B ' means 'A is not greater than B'.  
 'A ★ B ' means 'A is neither greater than nor equal to B'.

**Statements:** D ★ Q, Q \$ L, L # T, T % H

**Conclusions:** I. D ★ L      II. L @ H      III. H # L

A) Only I follows    B) I and II follow    C) Either II and III follows    D) All follow    E) None follow

★ ⇒ <	# ⇒ >	@ ⇒ ≥
% ⇒ ≤	\$ ⇒ =	

**Explanation:-**

$D \star Q \Rightarrow D < Q$   
 $Q \$ L \Rightarrow Q = L$   
 $L \# T \Rightarrow L > T$   
 $T \% H \Rightarrow T \leq H$

From all above statements,  
 $D < Q = L > T \leq H$

Conclusions. I.  $D \star L \Rightarrow D < L$  (True)  
 II.  $L @ H \Rightarrow L \geq H$  (False)  
 III.  $H \# L \Rightarrow H > L$  (False)

Only (I) follows

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 101**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
Step II : 72 shine 56 dress fine 32 66 offer  
Step III : 72 shine 66 56 dress fine 32 offer  
Step IV : 72 shine 66 offer 56 dress fine 32  
Step V : 72 shine 66 offer 56 fine dress 32  
Step VI : 72 shine 66 offer 56 fine 32 dress  
STEP VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Step IV of an input is '62 sound 56 sleep roam present 33 49'. What will be the input definitely?

- A) Sound 62 sleep 56 roam present 33 49    B) Sleep sound 62 56 roam present 33 49  
C) 62 Sound sleep 56 roam present 33 49     D) Cannot be determined    E) None of the above

**Explanation:-** Input cannot be determined.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 102**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
Step II : 72 shine 56 dress fine 32 66 offer  
Step III : 72 shine 66 56 dress fine 32 offer  
Step IV : 72 shine 66 offer 56 dress fine 32  
Step V : 72 shine 66 offer 56 fine dress 32  
Step VI : 72 shine 66 offer 56 fine 32 dress  
STEP VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Which of the following will be the third step for input 'jockey firm 36 43 growth chart 22 45 ?

- A) 45 jockey 43 growth firm 36 chart 22    B) 45 jockey 43 firm growth 36 chart 22  
C) 45 jockey 43 growth 36 firm chart 22    D) 45 jockey 43 firm 36 growth chart 22    E) None of the above

**Explanation:-** Input: Jockey firm 36 43 growth chart 22 45

Step I: 45 Jockey firm 36 43 growth chart 22  
Step II: 45 Jockey 43 firm 36 growth chart 22  
Step III: 45 Jockey 43 growth firm 36 chart 22.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 103**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
Step II : 72 shine 56 dress fine 32 66 offer  
Step III : 72 shine 66 56 dress fine 32 offer  
Step IV : 72 shine 66 offer 56 dress fine 32  
Step V : 72 shine 66 offer 56 fine dress 32  
Step VI : 72 shine 66 offer 56 fine 32 dress  
STEP VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Step II of an input is '53 window 42 50 door lock key 36'. How many more steps will be required to complete the arrangement?

- A) Three     B) Four    C) Five    D) Six    E) None of the above

**Explanation:-** Step II 53 window 42 50 door lock key 36  
Step III 53 window 50 42 door lock key 36  
Step IV 53 window 50 lock 42 door lock key 36  
Step V 53 window 50 lock 42 door lock key 36  
Step VI 53 window 50 lock 42 door lock key 36  
the step VI is the last step of the arrangement.  
Therefore four more steps are required to complete arrangement.

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 104**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
Step II : 72 shine 56 dress fine 32 66 offer  
Step III : 72 shine 66 56 dress fine 32 offer  
Step IV : 72 shine 66 offer 56 dress fine 32  
Step V : 72 shine 66 offer 56 fine dress 32  
Step VI : 72 shine 66 offer 56 fine 32 dress  
STEP VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

What will be the fifth step of an input whose first step is '85 journey train 36 54 daily 28 mansion'?

- A) 85 train 54 mansion 28 journey daily 36    B) 85 train 54 mansion journey 36 daily 28  
 C) 85 train 54 mansion 36 journey daily 28    D) There is no such step    E) None of the above

**Explanation:-** Step I 85 journey train 36 54 daily 28 mansion  
Step II 85 train journey 36 54 daily 28 mansion  
Step III 85 train 54 journey 36 daily 28 mansion  
Step IV 85 train 54 mansion journey 36 daily 28  
Step V 85 train 54 mansion 36 journey daily 28

**DIRECTIONS for the question:** Given an input line ; the machine arranges the words and numbers in steps in a systematic manner as illustrated afterwards : Study the pattern and answer the question that follows.

**Question No. : 105**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
 Step II : 72 shine 56 dress fine 32 66 offer  
 Step III : 72 shine 66 56 dress fine 32 offer  
 Step IV : 72 shine 66 offer 56 dress fine 32  
 Step V : 72 shine 66 offer 56 fine dress 32  
 Step VI : 72 shine 66 offer 56 fine 32 dress  
 STEP VI is the last step and the output in Step VI is the final output.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Which step will be the last step for an input whose second step is '63 Sour 18 56 grapes healthy 32 rise'?

- A) IV   B) V   C) VIII   D) VII    E) None of these

**Explanation:-** Step II 63 sour 18 56 grapes healthy 32 rise  
 Step III 63 sour 56 18 grapes healthy 32 rise  
 Step IV 63 sour 56 rise 18 grapes healthy 32  
 Step V 63 sour 56 rise 32 18 grapes healthy  
 Step VI 63 sour 56 rise 32 healthy 18 grapes  
 So, the last step is step VI.

**Question No. : 106**

Input line : 56 dress fine shine 32 66 72 offer

Step I : 72 56 dress fine shine 32 66 offer  
 Step II : 72 shine 56 dress fine 32 66 offer  
 Step III : 72 shine 66 56 dress fine 32 offer  
 Step IV : 72 shine 66 offer 56 dress fine 32  
 Step V : 72 shine 66 offer 56 fine dress 32  
 Step VI : 72 shine 66 offer 56 fine 32 dress  
 STEP VI is the last step and the output in Step VI is the final output.

Which word/number will be sixth from right in step fifth whose second step is '63 Sour 18 56 grapes healthy 32 rise'?

- A) Rise    B) 56   C) Sour   D) 32   E) 18

**Explanation:-** Step V : 63 Sour 56 rise 32 18 grapes healthy  
 56 is the sixth number from the right in step V.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 107**

There were 42 students in a hostel. Due to the admission of 13 new studenets, the expenses of the mess increase by Rs. 31 per day while the average expenditure per head diminished by Rs. 3. What was the original expenditure of the mess?

- A) Rs. 633.23   B) Rs. 583.3   C) Rs. 623.3   D) Rs. 632   E) None of these

**Explanation:-** Let 'A' be the average expenditure. Then, according to question  
 $42A + 31 = 55(A - 3) \rightarrow 13A = 196 \rightarrow A = 196/13 = 15.07$ .  
 Total expenditure original =  $15.07 \times 42 = 633.23$



**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 108**

A bag contains 5 red and 4 green balls and another bag contains 3 red and 7 black balls. If a ball is drawn from each bag. Find the probability that both are of different colours.

- A)  $\frac{47}{90}$      B)  $\frac{5}{6}$     C)  $\frac{7}{18}$     D)  $\frac{2}{15}$     E) None of these

**Explanation:-**



The no. of ways in which two different coloured balls can be drawn are  $G + R, R + B, G + B$ .

$\therefore P$  (two different balls) =  $P$ (1st red and 2nd black) +  $P$  (1st green and 2nd red) +  $P$  (1st green and 2nd Black)

$$= \left(\frac{5}{9} \times \frac{7}{10}\right) + \left(\frac{4}{9} \times \frac{3}{10}\right) + \left(\frac{4}{9} \times \frac{7}{10}\right)$$

$$= \frac{35+12+28}{90} = \frac{75}{90} = \frac{5}{6}$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 109**

The probability of getting 10 in a single throw of three pairs of dice is

- A)  $1/6$      B)  $1/8$     C)  $1/9$     D)  $1/5$     E) None of these

**Explanation:-** With three dice the cases favourable for the event of getting 10 are

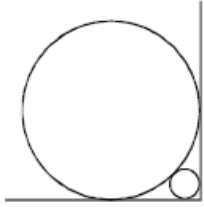
$$\left. \begin{array}{l} 1+3+6 \\ 1+4+5 \\ 2+3+5 \end{array} \right\} \times 3! \quad \left. \begin{array}{l} 2+2+6 \\ 2+4+4 \\ 3+3+4 \end{array} \right\} \times \frac{3!}{2!} \Rightarrow \text{Total of 27.}$$

$$\text{Required probability} = \frac{27}{6^3} = \frac{1}{8}$$

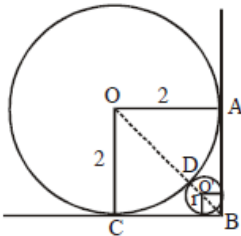
**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 110**

A circle with radius 2 is placed against a right angle. Another smaller circle is also placed as shown in the adjoining figure. What is the radius of the smaller circle?



- A)  $3-2\sqrt{2}$    B)  $4-2\sqrt{2}$    C)  $7-4\sqrt{2}$     D)  $6-4\sqrt{2}$    E) None of these



**Explanation:-**

OABC is square with side = 2

$$\therefore OB = \sqrt{2^2 + 2^2} = 2\sqrt{2}$$

Let  $r$  be the radius of smaller circle

$$OB = 2\sqrt{2} = OD + r + OB' = 2 + r + r\sqrt{2}$$

$$\Rightarrow r(\sqrt{2} + 1) = 2(\sqrt{2} - 1)$$

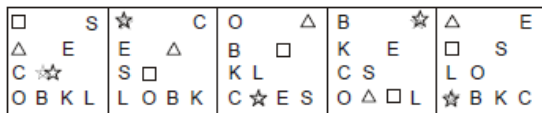
$$\Rightarrow r = \frac{2(\sqrt{2} - 1)}{(\sqrt{2} + 1)} = \frac{2(\sqrt{2} - 1)^2}{2 - 1}$$

$$= 2(2 + 1 - 2\sqrt{2})$$

$$= 6 - 4\sqrt{2}$$

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 111**



- A) 

B	S
K	O
C	☆
E	△

   B) 

O	□
S	L
E	△
C	☆

   C) 

L	O
S	□
△	E
C	☆

 D) 

O	L
S	□
E	△
C	☆

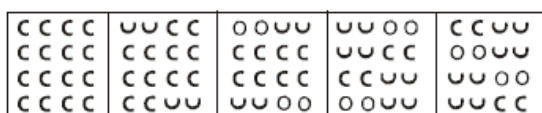
   E) 

□	B
☆	K
L	C
△	E

**Explanation:-** The shifting of the elements takes place in such a way that the change is completed in four steps. So the change from figure five to six will be similar to the change from figure one to figure two.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 112**



- A) 

UUUU
UUUU
UUUU
UUUU

   B) 

UUUU
UUUU
UUUU
UUUU

   C) 

UUUU
UUUU
UUUU
UUUU

   D) 

UUUU
UUUU
UUUU
UUUU

   E) 

UUUU
UUUU
UUUU
UUUU

**Explanation:-** In each step, two pairs of elements get changed, beginning from the upper left and lower right. The change takes place in three successive steps.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 113**

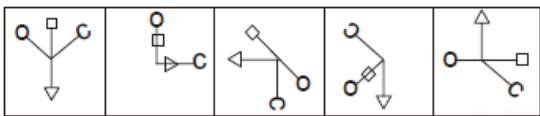


- A) B) C) D) E)

**Explanation:-** The main design rotates respectively through 45° clockwise, 180° and 90° anticlockwise after every two figures. The shaded leaflet rotates through 45° clockwise, 90° clockwise, 135° clockwise, 45° anticlockwise and 90° anticlockwise.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 114**



- A) B) C) D) E)

**Explanation:-** Watch the rotation of each element separately. The triangle rotates by 90° ACW and 180°. The circle rotates 45°, 135°, 90° CW 45° CW ... 'C' rotates 45°, 90°, 135°, 180° CW.

**DIRECTIONS for the question:** In the question given below which one of the answer figures should come after the problem figures given, if the sequence were continued?

**Question No. : 115**



- A) B) C) D) E)

**Explanation:-** In each step elements interchange in pairs while one element beginning from one end is replaced by a new one. The line of orientation rotates by 45° ACW.

**DIRECTIONS for the question:** Choose the word from the options which is most **Similar** in meaning to the given word.

**Question No. : 116**

APOLITICAL

- A) Antipolitical B) Terrorist C) Not interested in politics D) Subversive E) None of these

**Explanation:-** 'A' when added as a prefix does not imply anti but an indifference or apathy e.g. 'amoral' and 'immoral' immoral means not moral while amoral is only someone who does not care about morals.

**DIRECTIONS for the question:** Choose the word from the options which is most **Similar** in meaning to the given word.

**Question No. : 117**

CANDOUR

- A) Enthusiasm    ✓B) Openness    C) Freedom    D) Intimacy    E) None of these

**Explanation:-** Candour means frankness, Enthusiasm is excitement and Intimate is closeness or nearness

**DIRECTIONS for the question:** Choose the word from the options which is most **Similar** in meaning to the given word.

**Question No. : 118**

TRIVIAL

- A) Significant    B) Momentous    ✓C) Unimportant    D) Critical    E) None of these

**Explanation:-** Trivial means insignificant or unimportant, momentous means for/of the moment, critical is someone who looks for faults

**DIRECTIONS for the question:** Choose the word from the options which is **Opposite** in meaning to the given word.

**Question No. : 119**

ELAN

- A) Brashness    B) Dignity    C) Composure    ✓D) Nervousness    E) None of these

**Explanation:-** Elan means vigour or energy and enthusiasm, opposite of enthusiasm would be nervousness, composure means calmness, dignity is calm and serious manner while brashness is opposite to composure.

**DIRECTIONS for the question:** Choose the word from the options which is **Opposite** in meaning to the given word.

**Question No. : 120**

IRASCIBLE

- A) Kind    B) Friendly    ✓C) Roguish    D) Clever    E) None of these

**Explanation:-** Irascible is hot tempered, or someone who easily gets angry, roguish is playful, it is more clearly an antonym to hot tempered than friendly or even kind. Both words Irascible and roguish concern the temperament of a person, while others are about his nature.

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 121**

We asked her **that how she got** time to write all these books.

- A) that how did she got    B) that how she was getting    C) how did she get    ✓D) how she got    E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 122**

Studies in the past have shown that those who limit their activity span during the day in winters are **more likely to** suffer from depression.

- A) more likely for    B) mostly likely to    C) most likely for    D) most likeliest for    ✓E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 123**

In some cases, factors like low salary, lack of growth prospects and lack of motivation **compel all employee** to look for a change.

- A) compel those employees    B) compelling all employees    C) compelling the employee     D) compel employees  
E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 124**

Living with compassion and contributing to others lives **would helping us** add happiness to our lives as well.

- A) will helping us     B) will help us    C) would helped them    D) will helped us    E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** In the sentence provided a part of the sentence is underlined. Beneath the sentence, four/five different ways of paraphrasing the underlined part are indicated. Choose the best alternative amongst the four/five.

**Question No. : 125**

The **easiest way for** prevent stress caused by work or home pressures is to indulge in high levels of physical activity.

- A) easily way to    B) easier ways for     C) easiest way to    D) easier way from    E) No correction required

**Explanation:-**

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 126**

Six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent – are to be placed in six display windows' of a shop numbered 1- 6 from left to right of a shopper standing outside the shop. As per the company requirements, Rin and Ariel should be displayed next to each other, but Ariel should be at least three windows away from Nirma. Pepsodent is preferred to be kept between Gillette Gel and Rin but away from Vivel at least by two windows. Vivel cannot be displayed next to Rin for the reasons of mixed-product identity. Also Vivel cannot be displayed in window 1.

Which of the following products is displayed left to Ariel?

- A) Vivel    B) Nirma     C) Rin    D) Pepsodent    E) Giuette gel

**Explanation:-** Here, alphabets A, V, R, N, G and P represent six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent, respectively.

We conclude the following combination : N G P R A V

Therefore, Rin is left to Ariel.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 127**

Six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent – are to be placed in six display windows' of a shop numbered 1- 6 from left to right of a shopper standing outside the shop. As per the company requirements, Rin and Ariel should be displayed next to each other, but Ariel should be at least three windows away from Nirma. Pepsodent is preferred to be kept between Gillette Gel and Rin but away from Vivel at least by two windows. Vivel cannot be displayed next to Rin for the reasons of mixed-product identity. Also Vivel cannot be displayed in window 1.

If the positions of Rin and Ariel are interchanged, which item will be displayed in window 5?

- A) Ariel   B) Nirma    C) Rin   D) Vivel   E) Pepsodent

**Explanation:-** Here, alphabets A, V, R, N, G and P represent six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent, respectively.

We conclude the following combination : N G P R A V

If we interchange the position of Rin and Ariel, the item displayed in window 5 will be Rin.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 128**

Six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent – are to be placed in six display windows' of a shop numbered 1- 6 from left to right of a shopper standing outside the shop. As per the company requirements, Rin and Ariel should be displayed next to each other, but Ariel should be at least three windows away from Nirma. Pepsodent is preferred to be kept between Gillette Gel and Rin but away from Vivel at least by two windows. Vivel cannot be displayed next to Rin for the reasons of mixed-product identity. Also Vivel cannot be displayed in window 1.

Which of the following products except Rin will be displayed left of Ariel but right of Gillette Gel?

- A) Vivel   B) Rin    C) Pepsodent   D) Nirma   E) None of these

**Explanation:-** Here, alphabets A, V, R, N, G and P represent six products – Ariel, Vivel, Rin, Nirma, Gillette Gel and Pepsodent, respectively.

We conclude the following combination : N G P R A V

Except Rin, the product displayed left of Ariel but right of Gillette Gel is Pepsodent.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 129**

In a club, combinations of five out of the eight songs P, Q, R, S, T, U, V and W are to be played by a DJ on a daily basis. On any one day, except for the first day of a month, only three of the songs must be the ones that were played on the previous day. The song combinations must also satisfy the following conditions :

- (i) If song "P" is to be played on a day, song "V" cannot be played.
- (ii) If song "Q" is to be played on a day, "T" must be one of the songs to be played after "Q".
- (iii) If "R" is to be played on a day, "V" must be one of the songs to be Played after "R".
- (iv) The last song to be played on any day must be either "S" or "U".

Which of the following could be the combination of songs to be played on the first day of a month ?

- A) P, R, V, S, U   B) Q, S, R, V, U    C) T, U, R, V, S   D) U, Q, S, T, W   E) None of these

**Explanation:-** (a) is obviously wrong for when P is played, then V cannot be played.

(b) is wrong because if Q is to be played, then T must also be played (after Q).

(c) does not contradict any of the conditions.

(d) is wrong because the last song must be either U or S.

So, (c) is correct.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 130**

In a club, combinations of five out of the eight songs P, Q, R, S, T, U, V and W are to be played by a DJ on a daily basis. On any one day, except for the first day of a month, only three of the songs must be the ones that were played on the previous day. The song combinations must also satisfy the following conditions :

- (i) If song "P" is to be played on a day, song "V" cannot be played.
- (ii) If song "Q" is to be played on a day, "T" must be one of the songs to be played after "Q".
- (iii) If "R" is to be played on a day, "V" must be one of the songs to be Played after "R".
- (iv) The last song to be played on any day must be either "S" or "U".

If the songs "R" and "W" are to be played on the first day, which of the following could be the other songs to be played on that day ?

- A) P, T, U   B) Q, S, V    C) T, S, V   D) Q, T, V   E) None of these

**Explanation:-** (a) If R is played then V must be played so, (a) is wrong  
 (b) If Q is played then T must be played so, (b) is wrong  
 (c) does not seem to contradict any condition given.  
 (d) U or S must be played everyday so, (d) is wrong.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 131**

In a club, combinations of five out of the eight songs P, Q, R, S, T, U, V and W are to be played by a DJ on a daily basis. On any one day, except for the first day of a month, only three of the songs must be the ones that were played on the previous day. The song combinations must also satisfy the following conditions :

- (i) If song "P" is to be played on a day, song "V" cannot be played.
- (ii) If song "Q" is to be played on a day, "T" must be one of the songs to be played after "Q".
- (iii) If "R" is to be played on a day, "V" must be one of the songs to be Played after "R".
- (iv) The last song to be played on any day must be either "S" or "U".

Which of the following is TRUE of any day's valid combination of songs ?

- A) "P" cannot be played at third place   B) "Q" cannot be played at third place   C) "T" cannot be played at third place  
 D) "U" cannot be played at fourth place    E) None of these

**Explanation:-** All the statements are false.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 132**

In a club, combinations of five out of the eight songs P, Q, R, S, T, U, V and W are to be played by a DJ on a daily basis. On any one day, except for the first day of a month, only three of the songs must be the ones that were played on the previous day. The song combinations must also satisfy the following conditions :

- (i) If song "P" is to be played on a day, song "V" cannot be played.
- (ii) If song "Q" is to be played on a day, "T" must be one of the songs to be played after "Q".
- (iii) If "R" is to be played on a day, "V" must be one of the songs to be Played after "R".
- (iv) The last song to be played on any day must be either "S" or "U".

If song "R" is played at third place in a sequence, which of the following cannot be the second song to be played in that sequence ?

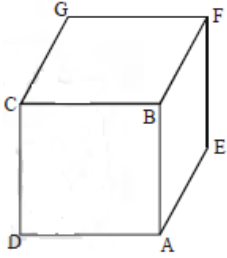
- A) Q   B) S   C) T   D) U   E) None of these

**Explanation:-** If R is in the third position, then V must be in the fourth position and the last (fifth) is for U or S. Now if Q is placed second, then T must be in either 3rd, 4th or 5th place which should be filled by R, V and (U or S) respectively. So, Q cannot be in the second place.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 133**

If the length of diagonals DF, AG and CE of the cube shown in the adjoining figure are equal to the three sides of a triangle, then the radius of the circle circumscribing that triangle will be



- A) equal to the side of the cube   
  B)  $\sqrt{3}$  times the side of the cube   
  C)  $\frac{1}{\sqrt{3}}$  times the side of the cube  
 D) impossible to find from the given information   
  E) None of these

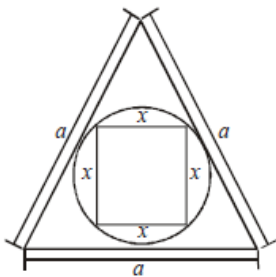
**Explanation:-** Let the side of the cube be 1. Then, diagonal =  $\sqrt{3}$   
 Now we have an equilateral triangle with side  $\sqrt{3}$  and its altitude will be  $3/2$ .  
 Circumradius =  $2/3 \times \text{altitude} = 2/3 \times 3/2 = 1$ .  
 Thus, the radius of the circle circumscribing that triangle will be equal to the side of the cube.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 134**

A square is inscribed in a circle which is inscribed in an equilateral triangle. If one side of the triangle is 'a', find the area of the square.

- A)  $\frac{a^2}{3}$    
  B)  $\frac{a^2}{6}$    
  C)  $\frac{3a^2}{8}$    
  D)  $\frac{\pi a^2}{12}$    
  E) None of these



**Explanation:-**

$$\text{Radius of circle } R = \frac{\frac{\sqrt{3}}{4}a}{\frac{3}{2}} = \frac{\sqrt{3}}{6}a$$

Diagonal of square = diameter of circle

$$= 2 \cdot \frac{\sqrt{3}}{6}a$$

$$= \sqrt{2}x = \frac{\sqrt{3}}{3}a$$

$$x = \frac{\sqrt{3}}{3\sqrt{2}}a = \frac{\sqrt{6}}{6}a$$

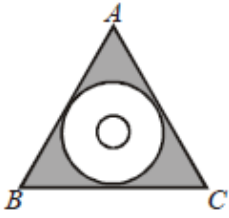
$$\text{Area} = x^2 = \left[ \frac{(\sqrt{6}a)}{6} \right]^2 = \frac{6}{36}a^2 = \frac{1}{6}a^2$$



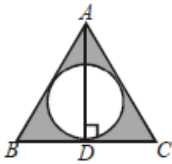
**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 135**

Find the area of the shaded region if ABC is an equilateral triangle of side 6 cm.



- ✓A) 6.15 cm.   B) 5.15 cm.   C) 4 cm.   D) 3.12 cm.   E) None of these



**Explanation:-**

$$\text{Height} = AD = \frac{\sqrt{3}}{2} \times \text{side} = \frac{\sqrt{3}}{2} \times 6 = 3\sqrt{3} \text{ cm}$$

$$\therefore \text{Inradius} = \frac{1}{3} \times \text{height} = \frac{1}{3} \times 3\sqrt{3} = \sqrt{3} \text{ cm.}$$

$$A(\text{shaded region}) = A(\Delta ABC) - A(\text{incircle})$$

$$= \frac{\sqrt{3}}{4} \times (\text{side})^2 - \pi r^2$$

$$= \frac{\sqrt{3}}{4} \times 6 \times 6 - 3.14 \times (\sqrt{3})^2$$

$$= 15.57 - 9.42 = 6.15 \text{ cm.}$$

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 136**

Choose the option that best captures the essence of the text given below :

Some decisions will be fairly obvious - "no-brainers." Your bank account is low, but you have a two week vacation coming up and you want to get away to some place warm to relax with your family. Will you accept your in-laws' offer of free use of their Florida beachfront condo ? Sure. You like your employer and feel ready to move forward in your career. Will you step in for your boss for three weeks while she attends a professional development course? Of course

- A. Some decisions are obvious under certain circumstances. You may, for example, readily accept a relative's offer of free holiday accommodation. Or step in for your boss when she is away.  
 B. Some decisions are no brainers. You need not think when making them. Examples are condo offers from inlaws and job offers from bosses when your bank account is low or boss is away.  
 C. Easy decisions are called "no-brainers" because they do not require any cerebral activity. Examples such as accepting free holiday accommodation abound in our lives.  
 D. Accepting an offer from in-laws when you are short on funds and want a holiday is a no-brainer. Another nobrainer is taking the boss's job when she is away.

- ✓A) A   B) B   C) C   D) D   E) None of these

**Explanation:-** comes across is the only reasonable option as the decisions to be taken in the passage are fairly obvious i.e. with a low bank account a free holiday offer may be taken up or if we are ready to move forward in our career then we can step in for the boss, when she is away. A is the most appropriate choice as its mentions that some decision are obvious under certain circumstances while other options

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 137**

Choose the option that best captures the essence of the text given below :

Physically, inertia is a feeling that you just can't move; mentally, it is a sluggish mind. Even if you try to be sensitive, if your mind is sluggish, you just don't feel anything intensely. You may even see a tragedy enacted in front of your eyes and not be able to respond meaningfully. You may see one person exploiting another, one group persecuting another, and not be able to get angry. Your energy is frozen. You are not deliberately refusing to act; you just don't have the capacity.

- A. Inertia makes your body and mind sluggish. They become insensitive to tragedies, exploitation, and persecution because it freezes your energy and decapacitates it.
- B. When you have inertia you don't act although you see one person exploiting another or one group persecuting another. You don't get angry because you are incapable.
- C. Inertia is of two types – physical and mental. Physical inertia restricts bodily movements. Mental inertia prevents mental response to events enacted in front of your eyes.
- D. Physical inertia stops your body from moving; mental inertia freezes your energy, and stop your mind from responding meaningfully to events, even tragedies, in front of you.

A) A    B) B   C) C   D) D   E) None of these

**Explanation:-** is the correct choice because according to the passage having inertia means we are incapable of doing anything. Eventhough we may see one person exploiting another, or a group persecuting another.

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 138**

Choose the option that best captures the essence of the text given below :

Try before you buy We use this memorable saying to urge you to experience the consequences of an alternative before you choose it, whenever this is feasible . If you are considering buying a van after having always owned sedans, rent one for a week or borrow a friend's. By experiencing the consequences first hand, they become more meaningful. In addition, you are likely to identify consequences you had not even thought of before. May be you will discover that it is difficult to park the van in your small parking space at work, but that, on the other hand , your elderly father has a much easier time getting in and out of it

- A. If you are planning to buy a van after being used to sedans, borrow a van or rent it and try it before deciding to buy it. Then you may realize that parking a van is difficult while it is easier for your elderly father to get in and out of it.
- B. Before choosing an alternative, experience its consequences if feasible. If, for example, you want to change from sedans to a van, try one before buying it. You will discover aspects you may never have thought of.
- C. Always try before you buy anything. You are bound to discover many consequences. One of the consequences of going in for a van is that it is more difficult to park than sedans at the office car park.
- D. We urge you to try products such as vans before buying them. Then you can experience consequences you have not thought of such as parking problems. But your father may find vans more comfortable than cars.

A) A    B) B   C) C   D) D   E) None of these

**Explanation:-**

is the only option as the passage clearly means to say that one should experience the consequences before choosing an alternative as then they become more meaningful. Also one can discover aspects one may not have ever thought of. Other options are more specifically about the van, whereas the point of the passage is to make a general statement about trying alternatives with van as an example.

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 139**

Goodricke Group Ltd is planning to give top priority to core competence of production and marketing of tea in 2007. The company intends to increase the production of orthodox varieties of tea. Goodricke is planning to invest Rs. 10 crore to modernise the factories. The company has announced a net profit of Rs. 5.49 crore for 2006 as against Rs. 3.76 crore in 2005.

Which of the following can be deduced from the caselet?

- A) Core competence can be used for furthering company's interests.
- B) Production and marketing is core competence of Goodricke Group.
- ✓C) Increase in production of existing products enhances core competence.
- D) Core competence leads to modernisation
- E) None of these

**Explanation:-** Option (c) which states "increase in production of existing products enhances core competence" is correct the reason being the company is planning to give priority to core competence and the only activity which can lead to it is increase in the production of orthodox varieties of tea.

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 140**

I have been studying it, consciously and subconsciously, for forty years and I still find men unaccountable; people I know intimately can surprise me by some action of which I never thought them capable or by the discovery of some trait exhibit a side of themselves that I never even suspected. The idea in this sentence can be best summarised as

- A) Men are inconsistent and therefore one should not be confident even about one's closest friends.
- B) Men are unpredictable, one can never tell what they will do next, hence one should be very careful in one's dealings.
- ✓C) No matter how closely you know somebody there still exists an unknown facet of his personality
- D) If you know somebody still you cannot predict his behaviour.
- E) None of these

**Explanation:-** The author in the passage states that you are never able to totally know someone, as no matter how much you know them, you will be surprised by something they do or some trait they exhibit. This unpredictability always exists. Option (a) is incorrect because being unpredictable and being inconsistent are two different things. Option (b) is incorrect, because the author didn't mention that because of this unpredictability, one should be careful while dealing with others.

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 141**

The convenience of online shopping is what I like best about it. Where else can you shop even at midnight wearing your night suit? You do not have to wait in a line till the shop assistant is ready to help you with your purchases. It is much better experience as compared to going to a retail store. – A consumer's view.

Which of the following can be a strong argument in favour of retail store owners?

- A) Online shopping portals offer a great deal of discounts which retail stores offer only during the sale season.
- B) One can compare a variety of products online which cannot be done at retail stores.
- ✓C) Many online shopping portals offer the 'cash on delivery' feature which is for those who are sceptical about online payments.
- D) Many consumers prefer shopping at retail stores which are nearer to their houses.
- E) In online shopping the customer may be deceived as he cannot touch the product he is paying for.

**Explanation:-** In online shopping the customer may be deceived as he cannot touch the product he is paying for.

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 142**

The convenience of online shopping is what I like best about it. Where else can you shop even at midnight wearing your night suit? You do not have to wait in a line till the shop assistant is ready to help you with your purchases. It is much better experience as compared to going to a retail store. – A consumer's view.

Which of the following can be inferred from the given information? (An inference is something that is not directly stated but can be inferred from the given information)

- A) One can shop online only at night.
- B) Those who are not comfortable using computers can never enjoy the experience of online shopping.
- C) All retail stores provide shopping assistants to each and every customer.
- D) The consumer whose view is presented has shopped at retail stores as well as online.
- E) The consumer whose view is presented does not have any retail stores in her vicinity.

**Explanation:-** The customer whose view is presented has shopped at retail stores as well as online.

---

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 143**

Many manufacturing companies are now shifting base to the rural areas of the country as there is a scarcity of space in urban areas. Analysts say that this shift will not have a huge impact on the prices of the products manufactured by these companies as only about 30% consumers live in urban areas.

Which of the following may be consequence of the given information?

- A) The prices of such products will decrease drastically in the urban areas.
- B) People living in urban areas will not be allowed to work in such manufacturing companies.
- C) These manufacturing companies has set-ups in the urban areas before shifting base.
- D) Those who had already migrated to the urban areas will not shift back to rural areas.
- E) The number of people migrated from rural to urban areas in search of jobs may reduce.

**Explanation:-** The number of people migrating from rural to urban areas in search of jobs may reduce.

---

**DIRECTION for the question:** Answer the question based on the information given in the passage.

**Question No. : 144**

'Pets are not allowed in the park premises' - A notice put up at the park entrance by the authority that is responsible for maintenance of the park.

Which of the following can be an assumption according to the given information? (An assumption is something that is supposed or taken for granted)

- A) At least some people who visit the park have pets.    B) This is the only park which does not allow pets
- C) People who ignored this notice were fined    D) There are more than one entrances to the park
- E) Many people have now stopped visiting the park

**Explanation:-** At least some people who visits the park have pets.

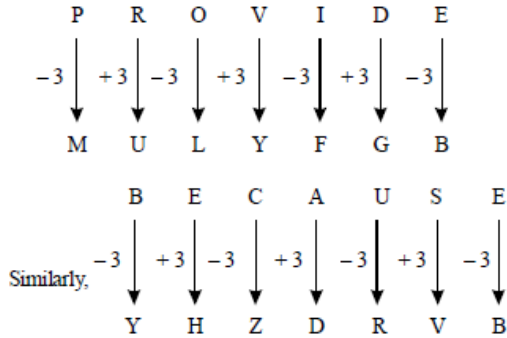
---

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 145**

In a code language 'PROVIDE' is written as 'MULYFGB', then what will be code for 'BECAUSE' in same languages

- A) YZHDRV B) ZHYDRVB  C) YHZDRV B D) ZYDHVBR E) None of these



**Explanation:-**

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 146**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment (\_\_\_\_) to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) stimuli  B) conducive C) incentive D) facilitated E) impetus

**Explanation:-** conducive ; the other words do not fit in correctly

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 147**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent (\_\_\_\_) for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) objective B) controversy C) doubt  D) question E) inference

**Explanation:-** question

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 148**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. (\_\_\_\_) be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- ✓A) cannot B) possibly C) should D) never E) must

**Explanation:-** cannot fits correctly

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 149**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but (\_\_\_\_) creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) necessary B) apply ✓C) need D) consider E) requires

**Explanation:-** need

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 150**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and (\_\_\_\_). There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) quantity B) advantages C) increase D) chaos ✓E) growth

**Explanation:-** growth

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 151**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's (\_\_\_\_). Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) challenges B) praises ✓C) favour D) leverage E) esteem

**Explanation:-** favour

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 152**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population (\_\_\_\_). While these / innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) blessed    ✓B) enjoys    C) endows    D) prevails    E) occurs

**Explanation:-** enjoys

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 153**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these (\_\_\_\_) innovation policy interventions certain additional steps also required. These include / investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- ✓A) aid    B) jeopardise    C) promotes    D) endure    E) cater

**Explanation:-** aid is used correctly meaning facilitate

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 154**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include (\_\_\_\_) investment in research and development / the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- A) acute    B) utilising    C) restricting    D) inspiring    ✓E) increased

**Explanation:-** increased

**DIRECTIONS for the question:** The passage given contains blanks, choose the best choice in each case from the words in the options and mark your answer accordingly.

**Question No. : 155**

There is a considerable amount of research about the factors that make a company innovate. So is it possible to create an environment / to innovation? This is a particularly pertinent / for India today. Massive problems in health, education etc. / be solved using a conventional approach but / creative and innovative solutions that can ensure radical change and /. There are several factors in India's /. Few countries have the rich diversity that India or its large, young population /. While these / innovation policy interventions certain additional steps also required. These include / investment in research and development (\_\_\_\_) the government and the private sector, easy transfer of technology form the academic world etc. To fulfill its promise of being prosperous and to be at the forefront, India must be innovative.

- ✓A) both    B) besides    C) combining    D) participating    E) also

**Explanation:-** both

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 156**

Statement : The world will have to feed more than 10 billion people in the next century of whom half will be in Asia and will eat rice as their staple.

Courses of Action :

- I. More funds should immediately be allocated for rice research to help ensure adequate supplies.
- II. The people in Asia should be encouraged to change their food habit.
- III. The rice should be grown in countries outside Asia to meet the demand.

- A) Only I and II follow    B) Only II and III follow    C) All follow     D) None follows    E) Only I and III follow

**Explanation:-** Eating habit of a society develops through centuries and is impossible to change, hence II can't be implemented. I and III will help address the growth in demand.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 157**

Statement : If the faculty members also join the strike, then there is going to be a serious problem.

Courses of Action :

- I. The faculty members should be persuaded not to go on strike.
- II. Those faculty members who join the strike should be suspended.
- III. The management should not worry about such small things

- A) None follows    B) Only I follows     C) Only I and II follow    D) Only II and III follow    E) All follow

**Explanation:-** Faculty members should be persuaded not to go on strike and an action against the members who join the strike should be taken.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 158**

A cylinder is circumscribed about a hemisphere and a cone is inscribed in the cylinder so as to have its vertex at the centre of one end, and the other end as its base. The volume of the cylinder, hemisphere and the cone are, respectively in the ratio :

- A) 2 : 3 : 2     B) 3 : 2 : 1    C) 3 : 1 : 2    D) 1 : 2 : 3    E) None of these

**Explanation:-** We have,

radius of the hemisphere = radius of the cone

= height of the cone

= height of the cylinder = r (say)

Then, ratio of the volumes of cylinder, hemisphere and cone



$$= \pi r^3 : \frac{2}{3} \pi r^3 : \frac{1}{3} \pi r^3 = 1 : \frac{2}{3} : \frac{1}{3} = 3 : 2 : 1$$

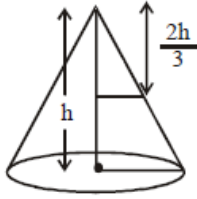


**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 159**

A right circular cone of height  $h$  is cut by a plane parallel to the base and at a distance  $h/3$  from the base, then the volumes of the resulting cone and frustum are in the ratio

- A) 1 : 3     B) 8 : 19    C) 1 : 4    D) 1 : 7    E) None of these



**Explanation:-**

$$\text{Volume of the original cone 'V'} = \frac{\pi r^2 h}{3}$$

$$\text{Height of the smaller cone} = 2h/3$$

$$\text{and radius} = \frac{2r}{3} \text{ (from similar } \Delta\text{'s)}$$

Volume of smaller cone

$$= \frac{1}{3} \pi \left(\frac{2r}{3}\right)^2 \frac{2h}{3} = \frac{8}{81} \pi r^2 h = \frac{8V}{27}$$

$$\frac{\text{Volume of smaller cone}}{\text{Volume of frustum}} = \frac{8V/27}{V - 8V/27} = \frac{8}{19}$$

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 160**

Tap A can fill a tank in 20 hours, B in 25 hours but tap C can empty a full tank in 30 hours. Starting with A, followed by B and C each tap opens alternatively for one hour period till the tank gets filled up completely. In how many hour the tank will be filled up completely?

- A)  $51\frac{11}{15}$     B)  $52\frac{2}{3}$     C)  $24\frac{4}{11}$     D)  $55\frac{2}{3}$     E) None of these

**Explanation:-** LCM (20, 25, 30) = 300

suppose capacity of the tank is 300 litre.

Quantity filled by tap A in 1 hour =  $\frac{300}{20} = 15$  litre.

Quantity filled by tap B in 1 hour =  $\frac{300}{25} = 12$  litre.

Quantity emptied by tap C in 1 hour =  $\frac{300}{30} = 10$  litre.

In every three hour,  $15 + 12 - 10 = 17$  litre is filled.

17 liters = 3 hours

$17 \times 17 = 289$  liters =  $17 \times 3$  hours = 51 hours

Remaining liters =  $300 - 289 = 11$  litres

Pipe A fills this remaining quantity in  $\frac{11}{15}$  hour (i.e., in 44 minutes).

Therefore, the tank is filled in 51 hour 11/15 minutes.

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 161**

**Fare in rupees for three different types of vehicles**

Vehicle	Fare for distance upto					
	2 km	4 km	7 km	10 km	15 km	20 km
Type A	Rs. 5.00	Rs. 9.00	Rs. 13.50	Rs. 17.25	Rs. 22.25	Rs. 26.00
Type B	Rs. 7.50	Rs. 14.50	Rs. 24.25	Rs. 33.25	Rs. 45.75	Rs. 55.75
Type C	Rs. 10.00	Rs. 19.00	Rs. 31.00	Rs. 41.50	Rs. 56.50	Rs. 69.00

Note : Fare per km for intermittent distance is the same.

Shiv Kumar has to travel a distance of 15 kms in all. He decides to travel equal distance by each of the three types of vehicles. How much money is to be spent as fare?

- A) Rs. 51.75   B) Rs. 47.50   C) Rs. 47.25    D) Rs. 51.25   E) None of these

**Explanation:-** Distance to be travelled by each type of vehicle =  $15/3 = 5\text{ km}$   
Since, to travel 5 km by vehicle A, he will pay Rs. 9 for 4 km and for the next 1 km he will have to pay

$$\text{RS.} = \frac{13.5 - 9.00}{(7 - 4)} \times 1.$$

Similarly, for other cases.

$$\text{Fare by A} = ₹ 9 + \frac{13.50 - 9}{7 - 4} = 9 + 1.50 = ₹ 10.50$$

$$\text{Fare by B} = 14.50 + \frac{24.25 - 14.50}{7 - 4}$$

$$= 14.50 + 3.25 = 17.75$$

$$\text{Fare by C} = 19 + \frac{31 - 19}{3} = 19 + 4 = 23$$

$$\text{Total fare} = 10.50 + 17.75 + 23 = \text{Rs. } 51.25$$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 162**

**Fare in rupees for three different types of vehicles**

Vehicle	Fare for distance upto					
	2 km	4 km	7 km	10 km	15 km	20 km
Type A	Rs. 5.00	Rs. 9.00	Rs. 13.50	Rs. 17.25	Rs. 22.25	Rs. 26.00
Type B	Rs. 7.50	Rs. 14.50	Rs. 24.25	Rs. 33.25	Rs. 45.75	Rs. 55.75
Type C	Rs. 10.00	Rs. 19.00	Rs. 31.00	Rs. 41.50	Rs. 56.50	Rs. 69.00

Note : Fare per km for intermittent distance is the same.

Ajit Singh wants to travel a distance of 15 kms. He starts his journey by Type A vehicle. After travelling 6 kms, he changes the vehicle to Type B for the remaining distance. How much money will he be spending in all?

- A) Rs. 42.25   B) Rs. 36.75   C) Rs. 40.25   D) Rs. 42.75   E) None of these

$$\text{Fare by A} = 9 + \frac{4.50}{3} \times 2 = ₹ 12$$

$$\text{Fare by B} = 24.25 + \frac{33.25 - 24.25}{3} \times 2 = ₹ 30.25$$

**Explanation:-** Total fare =  $30.25 + 12 = ₹ 42.25$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 163**

**Fare in rupees for three different types of vehicles**

Vehicle	Fare for distance upto					
	2 km	4 km	7 km	10 km	15 km	20 km
Type A	Rs. 5.00	Rs. 9.00	Rs. 13.50	Rs. 17.25	Rs. 22.25	Rs. 26.00
Type B	Rs. 7.50	Rs. 14.50	Rs. 24.25	Rs. 33.25	Rs. 45.75	Rs. 55.75
Type C	Rs. 10.00	Rs. 19.00	Rs. 31.00	Rs. 41.50	Rs. 56.50	Rs. 69.00

Note : Fare per km for intermittent distance is the same.

Mr X wants to travel a distance of 8 kms by Type A vehicle. How much more money will be required to be spent if he decides to travel by Type B vehicle instead of Type A?

- A) Rs. 16     B) Rs. 12.50    C) Rs. 14    D) Rs. 13.50    E) None of these

$$\begin{aligned} \text{Fare for 8 km by A} &= 13.50 + \frac{17.25 - 13.50}{10 - 7} \\ &= 13.50 + \frac{3.75}{3} = ₹ 14.75 \end{aligned}$$

$$\text{Fare by B} = 24.25 + \frac{33.25 - 24.25}{3} = ₹ 27.25$$

**Explanation:-** Difference = 27.25 - 14.75 = ₹ 12.50

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 164**

**Fare in rupees for three different types of vehicles**

Vehicle	Fare for distance upto					
	2 km	4 km	7 km	10 km	15 km	20 km
Type A	Rs. 5.00	Rs. 9.00	Rs. 13.50	Rs. 17.25	Rs. 22.25	Rs. 26.00
Type B	Rs. 7.50	Rs. 14.50	Rs. 24.25	Rs. 33.25	Rs. 45.75	Rs. 55.75
Type C	Rs. 10.00	Rs. 19.00	Rs. 31.00	Rs. 41.50	Rs. 56.50	Rs. 69.00

Note : Fare per km for intermittent distance is the same.

Rita hired a Type B vehicle for travelling a distance of 18 kms. After travelling 5 kms, she changed the vehicle to Type A. Again after travelling 8 kms by Type A vehicle, she changed the vehicle to Type C and completed her journey. How much money did she spend in all?

- A) Rs. 50    B) Rs. 42.50    C) Rs. 55    D) Rs. 50.50     E) None of these

**Explanation:-** Fare by B for 5 km = 14.50 + 3.25 = Rs. 17.75

$$\begin{aligned} \text{Fare by A for 8 km} &= 13.50 + \frac{17.25 - 13.50}{3} \\ &= \text{Rs. } 14.75 \end{aligned}$$

$$\begin{aligned} \text{Fare by C for 5 km} &= 19 + \frac{31 - 19}{3} \\ &= \text{Rs. } 23 \end{aligned}$$

$$\text{Total fare} = 17.75 + 14.75 + 23 = 55.50$$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 165**

**Fare in rupees for three different types of vehicles**

Vehicle	Fare for distance upto					
	2 km	4 km	7 km	10 km	15 km	20 km
Type A	Rs. 5.00	Rs. 9.00	Rs. 13.50	Rs. 17.25	Rs. 22.25	Rs. 26.00
Type B	Rs. 7.50	Rs. 14.50	Rs. 24.25	Rs. 33.25	Rs. 45.75	Rs. 55.75
Type C	Rs. 10.00	Rs. 19.00	Rs. 31.00	Rs. 41.50	Rs. 56.50	Rs. 69.00

Note : Fare per km for intermittent distance is the same.

Fare for 14th km by Type C vehicle is equal to the fare for which of the following?

- A) Type B – 11th km     B) Type B – 9th km    C) Type A – 4th km    D) Type C – 8th km    E) None of these

**Explanation:-** Fare for 14th km by C

$$= \frac{56.50 - 41.50}{15 - 10}$$

= Rs. 3

Fare for 9th km by B

$$= \frac{33.25 - 24.25}{10 - 7}$$

= Rs. 3

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 166**

Number of students of different classes of a school playing different games.							
Class → Games ↓	XII	XI	X	IX	VIII	VII	VI
Chess	11	12	5	4	2	2	1
Cricket	38	40	12	17	25	18	20
Basket ball	11	9	7	6	0	0	0
Table Tennis	9	9	21	19	11	9	0
Football	40	27	18	19	12	16	14
Carrom	16	15	8	19	12	16	14
Tennis	8	9	11	5	6	0	0
Badminton	47	39	33	21	19	0	0

Approximately what per cent of Class VIII students play Cricket out of the total students playing Cricket?

- A) 13    B) 4    C) 25     D) 15    E) 17

**Explanation:-** Total no. of students who play cricket

$$= 38 + 40 + 12 + 17 + 25 + 18 + 20 = 170$$

$$\text{Reqd \%} = \frac{25}{170} \times 100 \approx 15\%$$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 167**

Number of students of different classes of a school playing different games.							
Class → Games ↓	XII	XI	X	IX	VIII	VII	VI
Chess	11	12	5	4	2	2	1
Cricket	38	40	12	17	25	18	20
Basket ball	11	9	7	6	0	0	0
Table Tennis	9	9	21	19	11	9	0
Football	40	27	18	19	12	16	14
Carrom	16	15	8	19	12	16	14
Tennis	8	9	11	5	6	0	0
Badminton	47	39	33	21	19	0	0

What is the ratio of the students playing Football in Class XI to those in Class X?

- A) 1:2   B) 2:5   C) 2:3    D) 3:2   E) None of these

**Explanation:-** Reqd ratio =  $27 : 18 = 3 : 2$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 168**

Number of students of different classes of a school playing different games.							
Class → Games ↓	XII	XI	X	IX	VIII	VII	VI
Chess	11	12	5	4	2	2	1
Cricket	38	40	12	17	25	18	20
Basket ball	11	9	7	6	0	0	0
Table Tennis	9	9	21	19	11	9	0
Football	40	27	18	19	12	16	14
Carrom	16	15	8	19	12	16	14
Tennis	8	9	11	5	6	0	0
Badminton	47	39	33	21	19	0	0

Which game is the most popular?

- A) Badminton   B) Football   C) Carrom   D) Table Tennis    E) Cricket

**Explanation:-** clearly, we can see that maximum number of students in Cricket. Therefore, Cricket game is the most popular.

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 169**

Number of students of different classes of a school playing different games.							
Class → Games ↓	XII	XI	X	IX	VIII	VII	VI
Chess	11	12	5	4	2	2	1
Cricket	38	40	12	17	25	18	20
Basket ball	11	9	7	6	0	0	0
Table Tennis	9	9	21	19	11	9	0
Football	40	27	18	19	12	16	14
Carrom	16	15	8	19	12	16	14
Tennis	8	9	11	5	6	0	0
Badminton	47	39	33	21	19	0	0

Approximately what per cent of Class X students play the Table Tennis out of the total Class X students playing the different given games?

- A) 20   B) 21   C) 27   D) 26    E) 18

**Explanation:-** Total Class X students who play different games = 115  
 Reqd % =  $\frac{21}{115} \times 100 \approx 18\%$

**DIRECTIONS for the question:** Study the table/s given below and answer the question that follows.

**Question No. : 170**

Number of students of different classes of a school playing different games.							
Class → Games ↓	XII	XI	X	IX	VIII	VII	VI
Chess	11	12	5	4	2	2	1
Cricket	38	40	12	17	25	18	20
Basket ball	11	9	7	6	0	0	0
Table Tennis	9	9	21	19	11	9	0
Football	40	27	18	19	12	16	14
Carrom	16	15	8	19	12	16	14
Tennis	8	9	11	5	6	0	0
Badminton	47	39	33	21	19	0	0

Which game has ascending number of students from class IX to XII?

- A) Only Basketball   B) Only Badminton   C) Chess and Badminton   D) No game    E) None of these

**Explanation:-** Basketball and Badminton are the two games which satisfy the conditions.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 171**

A scientist is trying to find a cure for the common cold using four ingredients. He can choose from the stable chemicals A, B and C and the unstable chemicals W, X, Y and Z, In order for the formula not to explode, there must be two stable chemicals in it Also, certain chemicals cannot be mixed because of their reaction together. Chemical B cannot be mixed with Chemical W. Chemical Y cannot be mixed with Chemical Z.

If the scientist calculated that Y is the most important chemical and must be used in the formula, which other ingredients must be a part of the cure?

- A) A, B and Z    B) B, C and Z    C) A, B and W     D) A, B and X    E) None of these

**Explanation:-** Chemical Y has to be used

⇓

Chemical Z cannot be used.

∴ Options (a) & (b) are ruled out

Also, chemicals B & W cannot be used with each other.

∴ Option (c) is ruled out

Option (d) is the answer.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 172**

A scientist is trying to find a cure for the common cold using four ingredients. He can choose from the stable chemicals A, B and C and the unstable chemicals W, X, Y and Z, In order for the formula not to explode, there must be two stable chemicals in it Also, certain chemicals cannot be mixed because of their reaction together. Chemical B cannot be mixed with Chemical W. Chemical Y cannot be mixed with Chemical Z.

The scientist rejected chemical B because of its possible side effects but decided to use chemical Z. Which is a possible combination of the four ingredients in the formula?

- A) A, W, Y and Z     B) A, C, W, and Z    C) A, W, X and Z    D) A, X, Y and Z    E) None of these

**Explanation:-** Chemical Z is being used

⇓

Chemical Y cannot be used.

∴ Options (a) & (d) are ruled out

Option (c) is ruled out as the combination becomes unstable.

∴ Option (b) is the answer.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 173**

A scientist is trying to find a cure for the common cold using four ingredients. He can choose from the stable chemicals A, B and C and the unstable chemicals W, X, Y and Z, In order for the formula not to explode, there must be two stable chemicals in it Also, certain chemicals cannot be mixed because of their reaction together. Chemical B cannot be mixed with Chemical W. Chemical Y cannot be mixed with Chemical Z.

Which of the following combinations of chemicals is impossible?

I. Using chemical Y and W together

II. Using chemical B and C together

III. Using chemical W, X and Z together

- A) III only    B) I and III only    C) I only    D) II only    E) None of these

**Explanation:-** III is impossible as the combination becomes unstable.

∴ Option (a) is the answer.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 174**

A scientist is trying to find a cure for the common cold using four ingredients. He can choose from the stable chemicals A, B and C and the unstable chemicals W, X, Y and Z. In order for the formula not to explode, there must be two stable chemicals in it. Also, certain chemicals cannot be mixed because of their reaction together. Chemical B cannot be mixed with Chemical W. Chemical Y cannot be mixed with Chemical Z.

Which of the following can never be true?

- I. If chemical C is used, chemical Z is added
- II. If chemical A is not used, chemical W is added
- III. If chemical C is used, chemical W is added

- A) III only    B) (I) and (II) only    C) (I), (II) and (III)     D) (II) only    E) None of these

**Explanation:-** If Chemical A is not used, B and C have to be used. But then W cannot be used. Thus, (II) can never be true.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 175**

Seven offices in an office building are to be painted. The offices, which are on one side of a hallway, are numbered consecutively. One to seven, from the front of the building to the back. Each office is to be painted one colour only according to the following conditions:

- Two offices must be painted white;
- Two offices must be painted blue
- Two offices must be painted green; and one office must be painted yellow'
- Two offices painted green must be next to each other
- Two offices painted blue cannot be next to each other
- The office painted yellow cannot be next to an office painted white
- Office 3 must be painted white

If office 4 is painted white and an Office that is painted green is next to an office that is painted white, which of the following must be true?

- A) Office 7 must be painted blue    B) Office 6 must be painted white    C) Office 6 must be painted blue  
D) Office 1 must be painted yellow    E) None of these

**Explanation:-** Following information about 7 offices from front to back on one side of hallway.

- 2 offices are green.
- 2 offices are blue
- 2 offices are white
- 1 office is yellow
- The green offices are together
- The blue offices are never together.
- Office 3 is white
- The yellow office is not next to a white office.

The two combinations possible with the 3rd and 4th offices painted white are given below. In both cases office 7 is painted blue.

7	blue	blue
6	green	yellow
5	green	blue
4	white	white
3	white	white
2	blue	green
1	yellow	green



**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 176**

Seven offices in an office building are to be painted. The offices, which are on one side of a hallway, are numbered consecutively. One to seven, from the front of the building to the back. Each office is to be painted one colour only according to the following conditions:

- Two offices must be painted white;
- Two offices must be painted blue
- Two offices must be painted green; and one office must be painted yellow'
- Two offices painted green must be next to each other
- Two offices painted blue cannot be next to each other
- The office painted yellow cannot be next to an office painted white
- Office 3 must be painted white

If office 5 is painted white, which of the following must be true?

- ✓A) Office 4 is painted blue    B) Office 2 is painted yellow    C) Office 4 is painted yellow    D) Office 1 is painted blue  
E) None of these

**Explanation:-** Following information about 7 offices from front to back on one side of hallway.

- 2 offices are green.
- 2 offices are blue
- 2 offices are white
- 1 office is yellow
- The green offices are together
- The blue offices are never together.
- Office 3 is white
- The yellow office is not next to a white office.

The possible combinations are :

7	green	yellow
6	green	blue
5	white	white
4	blue	blue
3	white	white
2	blue	green
1	yellow	green

So among the given options only (a) is possible.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 177**

Seven offices in an office building are to be painted. The offices, which are on one side of a hallway, are numbered consecutively. One to seven, from the front of the building to the back. Each office is to be painted one colour only according to the following conditions:

- Two offices must be painted white;
- Two offices must be painted blue
- Two offices must be painted green; and one office must be painted yellow'
- Two offices painted green must be next to each other
- Two offices painted blue cannot be next to each other
- The office painted yellow cannot be next to an office painted white
- Office 3 must be painted white

Which of the following conditions, when combined with the original conditions, has the consequence of completely determining the colour that each office is painted?

- A) Office 6 must be painted blue     B) Office 6 must be painted white    C) Office 1 must be painted green  
 D) Office 4 must be painted green    E) None of these

**Explanation:-** Following information about 7 offices from front to back on one side of hallway.

- 2 offices are green.
- 2 offices are blue
- 2 offices are white
- 1 office is yellow
- The green offices are together
- The blue offices are never together.
- Office 3 is white
- The yellow office is not next to a white office.

	(a)	(b)	(c)	(d)
7		blue		
6	blue	white		
5		green		green
4		green		green
3	white	white	white	white
2		blue	green	
1		yellow	green	

In (a) the two green offices can be 1 & 2 or 4 & 5, both cases are possible, GGWWBBY; BWWGGBY etc. (from 1 to 7)

In (c) offices 1, 2 & 3 are fixed but 4 to 7 can have various options, viz WBYB, BWBY, BYBW, etc. (from 4 to 7)

In (d) offices 3, 4 & 5 are fixed but again multiple options are possible for the rest, viz. YBWGGBW, YBWGGWB, etc (from 1 to 7).

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 178**

(A) The local traders' association urged all its members to shut their establishments for two days and participate in the protest march.

(B) Government has recently cancelled licenses of many traders in the locality as they did not pay their taxes in time.

- A) if statement (A) is the cause and statement (B) is its effect.  
 B) if statement (B) is the cause and statement (A) is its effect.  
 C) if both the statements (A) and (B) are independent causes.  
 D) if both the statements (A) and (B) are effects of independent causes.  
 E) if both the statements (A) and (B) are effects of some common cause.

**Explanation:-** It is clear that statement (B) is the cause and statement (A) is its effect.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 179**

- (A) Government has increased the procurement price of kharif crops by about ten per cent for the current year.
- (B) Inadequate monsoon rainfall has created a drought like situation in many parts of the country.

- A) if statement (A) is the cause and statement (B) is its effect.
- B) if statement (B) is the cause and statement (A) is its effect.
- C) if both the statements (A) and (B) are independent causes.
- D) if both the statements (A) and (B) are effects of independent causes.
- E) if both the statements (A) and (B) are effects of some common cause.

**Explanation:-** It is clear that statement (B) is the cause and statement (A) is its effect.

**DIRECTION for the question:** Read the information given and answer the question that follows.

**Question No. : 180**

- (A) The Government has recently lifted ban on import of sugar for selling in the retail market.
- (B) The prices of sugar in the retail market have stabilized after a considerable gap.

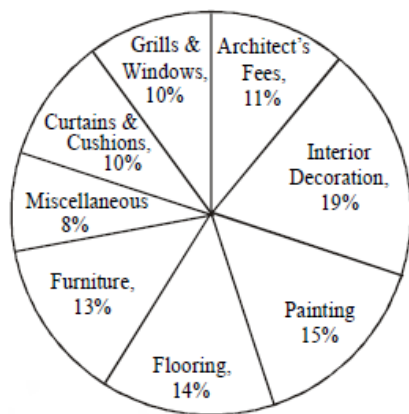
- A) if statement (A) is the cause and statement (B) is its effect.
- B) if statement (B) is the cause and statement (A) is its effect.
- C) if both the statements (A) and (B) are independent causes.
- D) if both the statements (A) and (B) are effects of independent causes.
- E) if both the statements (A) and (B) are effects of some common cause.

**Explanation:-** It is clear that statement (A) is cause and statement (B) is its effect. If there is adequate supply in the retail market, the price would stabilise.

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 181**

**Cost estimated by a family in renovation of their house**



**Total estimated cost is Rs. 1,20,000**

What is the difference in the amount estimated by the family on interior decoration and that on architect's fees?

- A) Rs. 10,000
- B) Rs. 9,500
- C) Rs. 7,200
- D) Rs. 9,000
- E) None of these

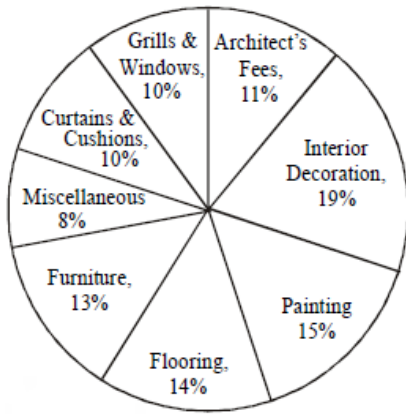
**Explanation:-** Required difference

$$= \left( \frac{19-11}{100} \right) \times 120000 = 9600$$

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 182**

**Cost estimated by a family in renovation of their house**



**Total estimated cost is Rs. 1,20,000**

During the process of renovation, the family actually incurred miscellaneous expenditure of ₹10,200. The miscellaneous expenditure incurred by the family is what percentage of the total estimated cost?

- A) 9.5%   B) 9%    C) 8.5%   D) 10.5%   E) None of these

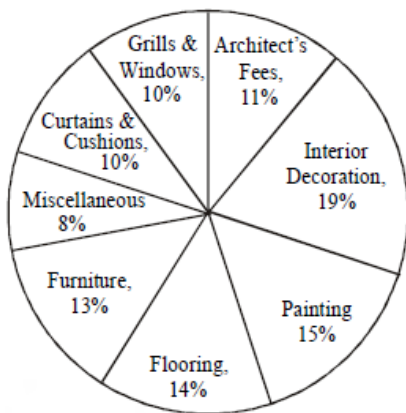
**Explanation:-** Required Percentage

$$= \frac{10200}{120000} \times 100 = 8.5\%$$

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 183**

**Cost estimated by a family in renovation of their house**



**Total estimated cost is Rs. 1,20,000**

Other than getting the discount of 12% on the estimated cost of furniture and the actual miscellaneous expenditure being Rs. 10,200 instead of the estimated one, the family's estimated cost is correct. What is the total amount spend by the family in renovating its house?

- A) Rs. 1,16,728   B) Rs. 1,15,926   C) Rs. 1,19,500   D) Rs. 1,16,500    E) None of these

**Explanation:-** Estimated cost of furniture and miscellaneous expenditures

$$= \left( \frac{13+8}{100} \right) \times 120000 = 25200$$

Actual cost of furniture

$$= \frac{88}{100} \times \frac{13}{100} \times 120000 = 13728$$

Actual cost of furniture and miscellaneous expenditure

$$= 13728 + 10200 = 23928$$

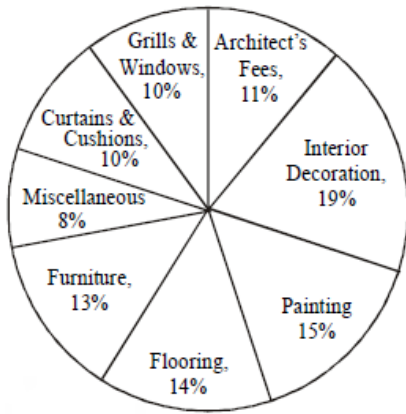
Total expenditure of the family

$$= 120000 - 25200 + 23928 = 118728$$

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 184**

**Cost estimated by a family in renovation of their house**



**Total estimated cost is Rs. 1,20,000**

What is the cost estimated by the family on painting and flooring together?

- A) Rs. 36,500     B) Rs. 34,800    C) Rs. 36,000    D) Rs. 34,500    E) None of these

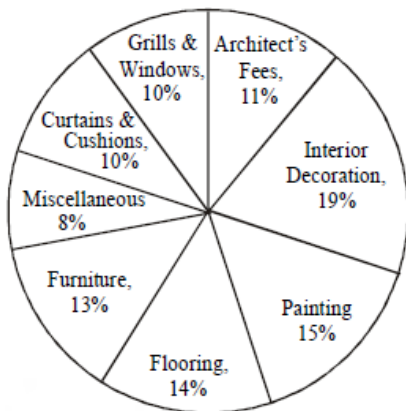
**Explanation:-** Required estimated cost

$$= \left( \frac{15+14}{100} \right) \times 120000 = 34800$$

**DIRECTIONS for the question:** Go through the pie chart/s given below and answer the question that follows.

**Question No. : 185**

**Cost estimated by a family in renovation of their house**



**Total estimated cost is Rs. 1,20,000**

The family gets a discount on furniture and pays 12% less than the estimated cost on furniture. What is the amount spent on furniture?

- A) Rs. 13,200    B) Rs. 14,526    C) Rs. 13,526     D) Rs. 13,728    E) None of these

**Explanation:-** Amount spent on furniture

$$= \frac{88}{100} \times \frac{13}{100} \times 120000 = 13728$$

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 186**

In a building there are thirteen flats on three floors— II, III and IV. Five flats are unoccupied. Three managers, two teachers, two lawyers and one doctor occupy the remaining flats. There are at least three flats on any floor and not more than six flats on any floor. No two persons of the same profession stay on any floor. On the second floor, out of four flats, one occupant is the lawyer and has only one neighbour. One teacher lives one floor below the other teacher. The doctor is not the neighbour of any of the lawyers. No flat is unoccupied on the third floor.

How many flats are there on the third floor?

- A) Three or Four   B) Four   C) Five    D) Three   E) None of these

**Explanation:-** Total Number of flats = 13; Unoccupied flats = 5

Occupied flats = 8

Number of flats on second floor = 4

Second floor comprises four flats. One occupant is lawyer and since he has only one neighbour, this implies that out of four flats on second floor, two are unoccupied. Again, since no flat is unoccupied on the third floor, it implies that there are three unoccupied flats on floor IV. Since there are at least three flats on any floor and no two same profession stay on any floor and the doctor is not the neighbour of any lawyer, then floor III comprises only three flats. Thus, floor IV comprises six flats (3 occupied + 3 unoccupied).

Since there are three managers and no two same profession stay on any floor, therefore, there will be a manager in each floor.

Also there are only two occupant in second floor and one of them is lawyer, therefore, second occupant should be manager.

Again, since there are two teachers, there will be a teacher each on floors III and IV. Again, doctor can't be neighbour of a lawyer. Hence, the doctor and lawyer will not reside on same floor. Therefore, on floor III – either Doctor or Lawyer then, on floor IV – either Lawyer or Doctor.

Floor	Total Flats	Occupied flats	Unoccupied flats	Occupants
II	4	2	2	Lawyer, Manager
III	3	3	0	Teacher, Manager, Lawyer or Doctor
IV	6	3	3	Teacher, Manager, Doctor or Lawyer

Clearly, there are three flats.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 187**

In a building there are thirteen flats on three floors— II, III and IV. Five flats are unoccupied. Three managers, two teachers, two lawyers and one doctor occupy the remaining flats. There are at least three flats on any floor and not more than six flats on any floor. No two persons of the same profession stay on any floor. On the second floor, out of four flats, one occupant is the lawyer and has only one neighbour. One teacher lives one floor below the other teacher. The doctor is not the neighbour of any of the lawyers. No flat is unoccupied on the third floor.

What is the combination of occupants on the second floor?

- ✓A) Lawyer, Manager   B) Teacher, Doctor   C) Manager, Doctor   D) Manager, Teacher   E) None of these

**Explanation:-** Total Number of flats = 13; Unoccupied flats = 5

Occupied flats = 8

Number of flats on second floor = 4

Second floor comprises four flats. One occupant is lawyer and since he has only one neighbour, this implies that out of four flats on second floor, two are unoccupied. Again, since no flat is unoccupied on the third floor, it implies that there are three unoccupied flats on floor IV. Since there are at least three flats on any floor and no two same profession stay on any floor and the doctor is not the neighbour of any lawyer, then floor III comprises only three flats. Thus, floor IV comprises six flats (3 occupied + 3 unoccupied).

Since there are three managers and no two same profession stay on any floor, therefore, there will be a manager in each floor.

Also there are only two occupant in second floor and one of them is lawyer, therefore, second occupant should be manager.

Again, since there are two teachers, there will be a teacher each on floors III and IV. Again, doctor can't be neighbour of a lawyer. Hence, the doctor and lawyer will not reside on same floor. Therefore, on floor III – either Doctor or Lawyer then, on floor IV – either Lawyer or Doctor.

Floor	Total Flats	Occupied flats	Unoccupied flats	Occupants
II	4	2	2	Lawyer, Manager
III	3	3	0	Teacher, Manager, Lawyer or Doctor
IV	6	3	3	Teacher, Manager, Doctor or Lawyer

From above table that combination is Lawyer & Manager.

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 188**

In a building there are thirteen flats on three floors— II, III and IV. Five flats are unoccupied. Three managers, two teachers, two lawyers and one doctor occupy the remaining flats. There are at least three flats on any floor and not more than six flats on any floor. No two persons of the same profession stay on any floor. On the second floor, out of four flats, one occupant is the lawyer and has only one neighbour. One teacher lives one floor below the other teacher. The doctor is not the neighbour of any of the lawyers. No flat is unoccupied on the third floor.

Who among the following is the neighbour of the other lawyer?

- A) Manager    B) Teacher     C) Both the Manager and the Teacher    D) Data inadequate    E) None of these

**Explanation:-** Total Number of flats = 13; Unoccupied flats = 5

Occupied flats = 8

Number of flats on second floor = 4

Second floor comprises four flats. One occupant is lawyer and since he has only one neighbour, this implies that out of four flats on second floor, two are unoccupied. Again, since no flat is unoccupied on the third floor, it implies that there are three unoccupied flats on floor IV. Since there are at least three flats on any floor and no two same profession stay on any floor and the doctor is not the neighbour of any lawyer, then floor III comprises only three flats. Thus, floor IV comprises six flats (3 occupied + 3 unoccupied).

Since there are three managers and no two same profession stay on any floor, therefore, there will be a manager in each floor.

Also there are only two occupant in second floor and one of them is lawyer, therefore, second occupant should be manager.

Again, since there are two teachers, there will be a teacher each on floors III and IV. Again, doctor can't be neighbour of a lawyer. Hence, the doctor and lawyer will not reside on same floor. Therefore, on floor III – either Doctor or Lawyer then, on floor IV – either Lawyer or Doctor.

Floor	Total Flats	Occupied flats	Unoccupied flats	Occupants
II	4	2	2	Lawyer, Manager
III	3	3	0	Teacher, Manager, Lawyer or Doctor
IV	6	3	3	Teacher, Manager, Doctor or Lawyer

Both the manager and the teacher are the neighbour of other lawyer.



**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 189**

In a building there are thirteen flats on three floors— II, III and IV. Five flats are unoccupied. Three managers, two teachers, two lawyers and one doctor occupy the remaining flats. There are at least three flats on any floor and not more than six flats on any floor. No two persons of the same profession stay on any floor. On the second floor, out of four flats, one occupant is the lawyer and has only one neighbour. One teacher lives one floor below the other teacher. The doctor is not the neighbour of any of the lawyers. No flat is unoccupied on the third floor.

How many flats are occupied on the fourth floor?

- A) Two     B) Three    C) Four    D) Data inadequate    E) None of these

**Explanation:-** Total Number of flats = 13; Unoccupied flats = 5

Occupied flats = 8

Number of flats on second floor = 4

Second floor comprises four flats. One occupant is lawyer and since he has only one neighbour, this implies that out of four flats on second floor, two are unoccupied. Again, since no flat is unoccupied on the third floor, it implies that there are three unoccupied flats on floor IV. Since there are at least three flats on any floor and no two same profession stay on any floor and the doctor is not the neighbour of any lawyer, then floor III comprises only three flats. Thus, floor IV comprises six flats (3 occupied + 3 unoccupied).

Since there are three managers and no two same profession stay on any floor, therefore, there will be a manager in each floor.

Also there are only two occupant in second floor and one of them is lawyer, therefore, second occupant should be manager.

Again, since there are two teachers, there will be a teacher each on floors III and IV. Again, doctor can't be neighbour of a lawyer. Hence, the doctor and lawyer will not reside on same floor. Therefore, on floor III – either Doctor or Lawyer then, on floor IV – either Lawyer or Doctor.

Floor	Total Flats	Occupied flats	Unoccupied flats	Occupants
II	4	2	2	Lawyer, Manager
III	3	3	0	Teacher, Manager, Lawyer or Doctor
IV	6	3	3	Teacher, Manager, Doctor or Lawyer

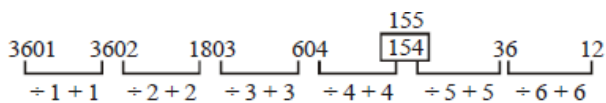
There are three flats occupied.

**DIRECTIONS for the question:** In the following series, one of the terms given is **wrong**. Find that term and mark that as your answer.

**Question No. : 190**

3601 3602 1803 604 154 36 12

- A) 3602    B) 1803    C) 604     D) 154    E) 36



**Explanation:-**

154 is written in place of 155.

## Actual MH-CET 2014

**DIRECTIONS for the question:** In the following series, one of the terms given is **wrong**. Find that term and mark that as your answer.

**Question No. : 191**

4 12 42 196 1005 6066 42511

A) 12     B) 42    C) 1005    D) 196    E) 6066

$$\begin{array}{ccccccc}
 & & & 45 & & & \\
 4 & 12 & 42 & 196 & 1005 & 6066 & 42511 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 \times 2 + (2)^2 & \times 3 + (3)^2 & \times 4 + (4)^2 & \times 5 + (5)^2 & \times 6 + (6)^2 & \times 7 + (7)^2 & 
 \end{array}$$

**Explanation:-**

42 is written in place of 45.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 192**

2 8 12 20 30 42 56

A) 8    B) 42    C) 30    D) 20    E) 12

$$\begin{array}{ccccccc}
 & & 6 & & & & \\
 2 & 8 & 12 & 20 & 30 & 42 & 56 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 + 4 & + 6 & + 8 & + 10 & + 12 & + 14 & 
 \end{array}$$

**Explanation:-**

8 is written in place of 6.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 193**

32 16 24 65 210 945 5197.5

A) 945    B) 16    C) 24    D) 210     E) 65

$$\begin{array}{ccccccc}
 & & & 60 & & & \\
 32 & 16 & 24 & 65 & 210 & 945 & 5197.5 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 \times 0.5 & \times 1.5 & \times 2.5 & \times 3.5 & \times 4.5 & \times 5.5 & 
 \end{array}$$

**Explanation:-**

65 is written in place of 60.

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 194**

7 13 25 49 97 194 385

A) 13    B) 49    C) 97     D) 194    E) 25

$$\begin{array}{ccccccc}
 & & & & & 193 & \\
 7 & 13 & 25 & 49 & 97 & 194 & 385 \\
 \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} & \underbrace{\hspace{1.5cm}} \\
 + 6 & + 12 & + 24 & + 48 & + 96 & + 192 & 
 \end{array}$$

**Explanation:-**

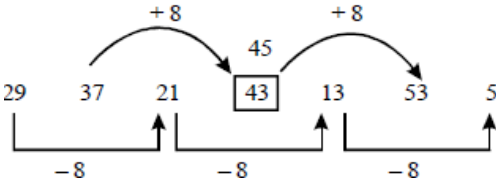
194 is written in place of 193

**DIRECTIONS for the question:** Solve the following question and mark the best possible option.

**Question No. : 195**

29, 37, 21, 43, 13, 53, 5

- A) 37 B) 53 C) 13 D) 21  E) 43



**Explanation:-**

194 is written in place of 193

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 196**

There are two trains A and B. Both trains have four different types of coaches viz. General coaches, sleeper coaches, first class coaches and AC coaches. In train A, there are total 700 passengers. Train B has 30% more passengers than train A. 20% of the passengers of train A are in general coaches. One-fourth of the total number of passengers of train A are in AC coaches. 23% of the passengers of train A are in sleeper class coaches. Remaining passengers of train A are in first class coaches. Total number of passengers in AC coaches in both the trains together is 480. 30% of the number of passengers of train B is in sleeper class coaches, 10% of the total passengers of train B are in first class coaches. Remaining passengers of train B are in general class coaches.

What is the ratio of the number of passengers in first class coaches of train A to the number of passengers in sleeper class coaches of train B?

- A) 13:7 B) 7:13  C) 32:39 D) Data inadequate E) None of these

**Explanation:-** Number of Passengers in train A = 700  
 Number of Passenger in train B = 30% of 700 = 910

Coaches	General	Sleeper	First Class	AC	Total
Train A	140	161	224	175	700
Train B	241	273	91	305	910
Total	381	434	315	480	1610

Number of passengers in first class coaches of train A = 224 Number of passengers in sleeper class coaches of train B = 273

$\therefore$  Required ratio =  $\frac{224}{273} = \frac{7 \times 32}{7 \times 39} = 32 : 39$

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 197**

There are two trains A and B. Both trains have four different types of coaches viz. General coaches, sleeper coaches, first class coaches and AC coaches. In train A, there are total 700 passengers. Train B has 30% more passengers than train A. 20% of the passengers of train A are in general coaches. One-fourth of the total number of passengers of train A are in AC coaches. 23% of the passengers of train A are in sleeper class coaches. Remaining passengers of train A are in first class coaches. Total number of passengers in AC coaches in both the trains together is 480. 30% of the number of passengers of train B is in sleeper class coaches, 10% of the total passengers of train B are in first class coaches. Remaining passengers of train B are in general class coaches.

What is the total number of passengers in the general coaches of train A and the AC coaches of train B together?

- A) 449   B) 459   C) 435    D) 445   E) None of these

**Explanation:-** Number of Passengers in train A = 700  
 Number of Passenger in train B = 30% of 700 = 910

Coaches	General	Sleeper	First Class	AC	Total
Train A	140	161	224	175	700
Train B	241	273	91	305	910
Total	381	434	315	480	1610

Passengers in the general coaches of train A = 140 Passengers in the AC coaches of train B = 305  
 Total = 140 + 305 = 445

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 198**

There are two trains A and B. Both trains have four different types of coaches viz. General coaches, sleeper coaches, first class coaches and AC coaches. In train A, there are total 700 passengers. Train B has 30% more passengers than train A. 20% of the passengers of train A are in general coaches. One-fourth of the total number of passengers of train A are in AC coaches. 23% of the passengers of train A are in sleeper class coaches. Remaining passengers of train A are in first class coaches. Total number of passengers in AC coaches in both the trains together is 480. 30% of the number of passengers of train B is in sleeper class coaches, 10% of the total passengers of train B are in first class coaches. Remaining passengers of train B are in general class coaches.

What is the difference between the number of passengers in the AC coaches of train A and total number of passengers in sleeper class coaches and first class coaches together of train B?

- A) 199   B) 178   C) 187   D) 179    E) None of these

**Explanation:-** Number of Passengers in train A = 700  
 Number of Passenger in train B = 30% of 700 = 910

Coaches	General	Sleeper	First Class	AC	Total
Train A	140	161	224	175	700
Train B	241	273	91	305	910
Total	381	434	315	480	1610

The number of passengers in AC coaches of train A = 175  
 Total number of passengers in sleeper class coaches and first class coaches together of train B  
 = (273 + 91) = 364  
 Their difference = 364 – 175 = 189

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 199**

There are two trains A and B. Both trains have four different types of coaches viz. General coaches, sleeper coaches, first class coaches and AC coaches. In train A, there are total 700 passengers. Train B has 30% more passengers than train A. 20% of the passengers of train A are in general coaches. One-fourth of the total number of passengers of train A are in AC coaches. 23% of the passengers of train A are in sleeper class coaches. Remaining passengers of train A are in first class coaches. Total number of passengers in AC coaches in both the trains together is 480. 30% of the number of passengers of train B is in sleeper class coaches, 10% of the total passengers of train B are in first class coaches. Remaining passengers of train B are in general class coaches.

Total number of passengers in general class coaches in both the trains together is approximately. What percentage of total number of passengers in train B?

- A) 35     B) 42    C) 45    D) 38    E) 31

**Explanation:-** Number of Passengers in train A = 700  
 Number of Passenger in train B = 30% of 700 = 910

Coaches	General	Sleeper	First Class	AC	Total
Train A	140	161	224	175	700
Train B	241	273	91	305	910
Total	381	434	315	480	1610

Passengers in general class coach of train A and train B = (140 + 241) = 381  
 Total number of passengers in train B = 910

$$\therefore \text{Required percentage} = \frac{381}{910} \times 100\% = 41.8\% \approx 42\%$$

**DIRECTIONS for the question:** Read the information given below and answer the question that follows.

**Question No. : 200**

There are two trains A and B. Both trains have four different types of coaches viz. General coaches, sleeper coaches, first class coaches and AC coaches. In train A, there are total 700 passengers. Train B has 30% more passengers than train A. 20% of the passengers of train A are in general coaches. One-fourth of the total number of passengers of train A are in AC coaches. 23% of the passengers of train A are in sleeper class coaches. Remaining passengers of train A are in first class coaches. Total number of passengers in AC coaches in both the trains together is 480. 30% of the number of passengers of train B is in sleeper class coaches, 10% of the total passengers of train B are in first class coaches. Remaining passengers of train B are in general class coaches.

If cost of per ticket of first class coach ticket is Rs. 450, what total amount will be generated from first class coaches of train A?

- A) Rs. 100080    B) Rs. 108000     C) Rs. 100800    D) Rs. 10800    E) 31

**Explanation:-** Number of Passengers in train A = 700  
 Number of Passenger in train B = 30% of 700 = 910

Coaches	General	Sleeper	First Class	AC	Total
Train A	140	161	224	175	700
Train B	241	273	91	305	910
Total	381	434	315	480	1610

The cost of per ticket of first class coach = Rs. 450  
 Number of Passenger in first class coaches of Train A = 224.  
 Total amount = 450 × 224 = Rs. 100800