OPENMAT (XXII) Entrance Test for Management Programmes 2007

Total No. of Questions = 200 *Time : 180 Minutes*

— All questions are compulsory.

— Use of calculator is not allowed. Rough work may be done in the space provided at the back of the Test booklet.

— The Test booklet has the following 4 tests :

Test-I	General Awareness	No. of Questions 30
Test-II	English Language	No. of Questions 50
Test-III	Quantitative Aptitude	No. of Questions 50
Test-IV	Reasoning	No. of Questions 70

Read the instructions given on the OMR Response Sheet carefully before you start.

How to fill up the information on the OMR Response Sheet (Examination Answer Sheet)

1. Write your complete enrolment no. in 9 digits. This should correspond to the enrolment number indicated by you on the OMR Response Sheet. Also write your correct name, address with pin code in the space provided. Put your signatures on the OMR Response Sheet with date. Ensure that the Invigilator in your examination hall also puts his signatures with date on the OMR Response Sheet at the space provided.

2. On the OMR Response Sheet student's particulars are to be filled in by pen. However use HB pencil for writing the Enrolment No. and Examination Centre Code as well as for blackening the circle bearing the correct answer number against the serial number of the question.

3. Do not make any stray remarks on this sheet.

4. Write correct information in numerical digit in Enrolment No. and Examination Centre Code columns. The corresponding circle should be dark enough and should be filled in completely.

5. Each question is followed by four probable answers which are numbered 1, 2, 3 & 4. You should select and show only one answer to each question considered by you as the most appropriate or the correct answer. Select the most appropriate answer. Then by using HB pencil, blacken the circle bearing the correct answer number against the serial number of the question. If you find that answer to any question is none of the four alternatives given under the question you should darken the circle '0'.

6. If you wish to change your answer, ERASE completely the already darkened circle by using a good quality eraser and then blacken the circle bearing your revised answer number. If incorrect answer is not erased completely, smudges will be left on the erased circle and the question will be read as having two answers and will be ignored for giving any credit.

7. No credit will be given if more than one answer is given for one question. Therefore, you should select the most appropriate answer.

8. You should not spend too much time on any one question. If you find any particular question difficult, leave it and go to the next. If you have time left after answering all the questions, you may go back to the unanswered ones. There is no negative marking for wrong answers.

GENERAL INSTRUCTIONS

1. No cell phones, calculators, books, slide-rules, note-books or written notes, etc. will be allowed inside the examination hall.

2. You should follow the instructions given by the Centre Superintendent and by the Invigilator at the examination venue. If you violate the instructions you will be disqualified.

3. Any candidate found copying or receiving or giving assistance in the examination will be disqualified.

4. The Test Booklet and the OMR Response Sheet (Answer Sheet) would be supplied to you by the Invigilators. After the examination is over, you should hand over the OMR Response Sheet to the Invigilator before leaving the examination hall. Any candidate who does not return the OMR Response Sheet will be disqualified and the University may take further action against him/her.

5. All rough work is to be done on the test booklet itself and not on any other paper. Scrap paper is not permitted. For arriving at answers you may work in the margins, make some markings or underline in the test booklet itself.

6. The University reserves the right to cancel scores of any candidate who impersonates or uses/adopts other malpractices or uses any unfair means. The examination is conducted under uniform conditions. The University would also follow a procedure to verify the validity of scores of all examinees uniformly. If there is substantial indication that your performance is not genuine, the University may cancel your score.

7. In the event of your qualifying the Entrance Test, the hall ticket should be enclosed with your admission form while submitting it to the University for seeking admission in Management Programme along with your testimonials and programme fee. Admission forms received without hall ticket in original will be summarily rejected.

TEST I

GENERAL AWARENESS

1. What does SEZ stand for ?

   (1) Special Export Zones
   (2) Special Economic Zones
   (3) Socio-Economic Zones
   (4) Software Export Zones

2. What does the name Hawaii mean ?

   (1) Place of the Gods
   (2) Gift of God
   (3) House of Stones
   (4) Three towns

3. How many states are there in India ?

   (1) 22
   (2) 24
   (3) 28
   (4) 26

4. The country symbol for Scotland is

   (1) Eagle
   (2) Lion
   (3) Dragon
   (4) Thistle

5. Which of the following is known as Queen of the Arabian Sea ?

   (1) Kochi
   (2) Alappuzha
   (3) Kerala
   (4) Mumbai

6. Kenophobia relates to

   (1) Open spaces
   (2) Empty spaces
   (3) Confined spaces
   (4) Heights

7. During 1963 – 69, who was the president of USA ?

(1) Ford
(2) Kennedy
(3) Nixon
(4) Johnson

8. Who was the Nobel Prize winner for Peace in the year 2004 ?

(1) Jimmy Carter
(2) Shirin Ebadi
(3) Wangari Maathai
(4) Kofi Annan

9. ANTRIX is the commercial arm of

(1) ISRO
(2) NCAER
(3) FICCI
(4) RBI

10. Who is the Central Chief Information Commissioner of India ?

(1) Pratush Sinha (2) Ranjana Kumari
(3) Wajahat Habibullah (4) T.N. Seshan

11. The 2010 Commonwealth Games are to be hosted by

(1) Canada (2) Australia
(3) India (4) England

12. India's service sector which generates over 50 per cent of GDP, employs only _____ per cent of workforce.

(1) 17 (2) 27
(3) 37 (4) 7

13. Which word means 'a sequence of events' ?

(1) Cavalcade
(2) Cyst
(3) Casket
(4) Cartridge

14. February gets its name from a Latin word implying

(1) Romance

(2) Brevity

(3) Atonement

(4) Disagreement

15. His 1978 film *'Grease'* was a big success. Name this actor.

(1) Jackie Chan

(2) John Travolta

(3) Richard Gere

(4) Tom Hanks

16. The present Governor of RBI is

(1) Y.V. Reddy

(2) R. Rangarajan

(3) Bimal Jalan

(4) Jagdish Bhagwati

17. Members of the Dinka tribe are known for their

(1) height

(2) swimming

(3) long hair

(4) marksmanship

18. Who is the only President of India to have served two terms ?

(1) S. Radhakrishan

(2) V.V. Giri

(3) Dr. Rajendra Prasad

(4) K.R. Narayanan

19. The first ever President of India to visit the military-ruled Myanmar is

(1) R. Venkatraman

(2) A.P.J. Abdul Kalam

(3) K.R. Narayanan

(4) Shankar Dayal Sharma

20. According to Forbes 2006 list, the total number of billionaires in the world was

(1) 873

(2) 683

(3) 793

(4) 973

21. Which of these is the capital of a country ?

(1) Apia

(2) Nauru

(3) Malta

(4) Principe

22. Which statement is true ?

(1) Columbus was born in Geneva.

(2) Columbus is a state capital in USA.

(3) Columbia is a state in the US.

(4) Columbus is a river in USA and Canada.

23. Taj Mahal was built in

(1) 16^{th} century

(2) 17^{th} century

(3) 15^{th} century

(4) 14^{th} century

24. Zinc in the human body, in grams, is

(1) 3 to 4

(2) 1 to 2

(3) 2 to 3

(4) 0·5 to 1·5

25. The expression 'high and low' means

(1) unsteady

(2) everywhere

(3) arrogant

(4) helpless

26. The only food that does ***not*** get spoiled is

(1) Honey

(2) Chilly

(3) Turmeric

(4) Mustard

27. A person with both A and B antigens is designated as having which blood group ?

(1) O

(2) A+

(3) B+

(4) AB

28. Mohammad Yunus was given the Nobel Prize in the field of

(1) Physics

(2) Medicine

(3) Economics

(4) Peace

29. Yanam, a part of Pondicherry, is in

(1) Andhra Pradesh

(2) Kerala

(3) Tamil Nadu

(4) Karnataka

30. Monash University is in

(1) UK

(2) USA

(3) Australia

(4) Canada

TEST II

ENGLISH LANGUAGE

Directions for Questions No. 31 to 45 : *The section consists of two passages followed by questions based on the contents of the passage. Answer all questions following each passage on the basis of what is stated or implied in the passage.*

Passage I

Mahatma Gandhi exercised leadership through his personal example and influence rather than through power. But would his style of leadership have worked in the West ? Gandhi's example, even more than those of Lincoln, de Gaulle and Hitler, reveals the extent to which leadership is bound up with culture.

For a long time the word 'culture' was used mainly as a synonym for Western civilization – the secular process of human development. In England it acquired definite class associations. But in the late eighteenth century the German writer Johann Herder challenged this view. 'Nothing is more indeterminate than this word,' he wrote, 'and nothing more deceptive than its application to all nations and periods.' Herder attacked the comfortable assumption that the self-development of humanity had moved in a unilinear progression to flower in the European culture around him. Indeed, he attacked the European assumption of cultural superiority.

> Men of all the quarters of the globe, who have perished over the ages, you have not lived solely to manure the earth with your ashes, so that at the end of time your prosperity should be made happy by European culture. The very thought of a superior European culture is a blatant insult to the majesty of Nature.

It is then necessary, he concluded, to talk of 'cultures' in the plural : the specific and variable cultures of different natures and periods, and even the sub-cultures (as we call them) of different social groups within the nation.

In India, the equivalent of *leader* is the word *neta*. In its positive sense it is used for a person who commands respect and even awe and has charismatic qualities about him. Because of the misdeeds and misdemeanours of some of the political leaders in the post-Independence era, the word has also come to be used as a taunt for those who pose as leaders but are not accepted as such. In India, the test of leadership lies in personal example, inspirational image and acceptance of the leader's qualities and attributes by the followers.

31. The above passage aims to prove that leadership is a question of

(1) power as displayed by the leader

(2) power that is rooted in a culture

(3) personal influence rather than power

(4) charisma that draws larger number of followers

32. The author disagrees with the view that

(1) culture is the synonym of Western civilisation

(2) development of civilisation was not unilinear

(3) Europeans thought that they were culturally superior to others

(4) there are cultures and sub-cultures of different periods and nations

33. The passage suggests that Gandhi's leadership

(1) was inferior to that of Lincoln, de Gaulle and Hitler

(2) would not have worked in the West

(3) was more closely related to culture than the leadership of other leaders mentioned

(4) would definitely work anywhere in the world

34. Johann Herder challenged the view that

(1) leadership is bound up with culture

(2) culture was the same as Western civilisation

(3) civilisation did not move in a unilinear fashion

(4) the notion of a superior European culture is an insult to the majesty of Nature

35. The passage upholds the view of

(1) cultural pluralism

(2) the European path of civilisational growth

(3) the strength of Western assumptions of cultural superiority

(4) the incompatibility of Western and Eastern cultures

36. The original meaning of the word *neta* refers to

(1) the born superiority of an aristocrat

(2) the ability of one to organise people using power

(3) the charismatic person who commands respect through personal qualities

(4) any one who collects a few people around and dictates his terms to others

37. The negative meaning of the word *neta* in India today is due to

(1) lack of bright young leaders

(2) the wrong actions and unacceptable behaviour of some political leaders

(3) general indifference of the public towards politics

(4) the absence of guidelines to train leaders

38. The most suitable title of the passage would be

(1) Different Types of Leadership

(2) Cultures and Civilisations

(3) Leadership Style of Mahatma Gandhi

(4) Power and Political Leadership

Passage II

Two recent publications offer different assessments of the career of the famous British nurse Florence Nightingale. A book by Andy Summers seeks to debunk the idealization and present a reality at odds with Nightingale's heroic reputation. According to Summers, Nightingale's importance during the Crimean War has been exaggerated : not until the War's end did she become supervisor of the female nurses. In addition, Summers writes that the contribution of the nurses to the relief of the wounded was at best marginal. The prevailing problems of military medicine were caused by army organizational practices, and the addition offered by few nurses to the medical staff could be no more than symbolic. Nightingale's place in the national pantheon, Summers asserts, is largely due to the propagandistic efforts of contemporary newspaper reporters.

By contrast, the editors of a new volume of Nightingale's letters view Nightingale as a person who significantly influenced not only her own age but also subsequent generations. They highlight her ongoing efforts to reform sanitary conditions after the War. For example,

when she learned that peacetime living conditions in British barracks were so horrible that the death rate of enlisted men far exceeded that of the neighbouring civilian population, she succeeded in persuading the government to establish a Royal Commission on the Health of the Army. She used sums raised through public contributions to found a nurses training hospital in London. Even in administrative matters, the editors assert, her practical intelligence was formidable : as recently as 1947 the British army's medical services were still using the cost accounting system she had devised in the eighteen sixties.

I believe that the evidence of her letters supports continued respect for Nightingale's brilliance and creativity. When counselling village school masters to encourage children to use their faculties of observation, she sounds like a modern educator. Her insistence on classifying the problems of the needy in order to devise a procreate treatment is similar to the approach of modern social workers. In sum, although Nightingale may not have achieved all of her goals during the Crimean War, her breadth of vision and ability to realize ambitious projects have earned her an eminent place among the ranks of social pioneers.

39. The main objective of the passage is

(1) to evaluate the historical place of Florence Nightingale as a social pioneer

(2) to highlight the propagandistic efforts of the British newspapers reporting on the work of Florence Nightingale

(3) to focus on the brilliance and creativity of Nightingale

(4) to moderate the exaggerated adulation of Nightingale

40. The editors of a new volume of Nightingale's letters credit her

(1) for saving many British soldiers in the Crimean War

(2) for developing curriculum for training nurses that was much ahead of her days

(3) for appointing more women doctors in British Hospitals

(4) for persuading the government to set up a Royal Commission on the Health of the Army

41. While carrying out her work, Nightingale faced the most difficult challenges from

(1) the British newspapers

(2) the male dominated British Hospitals

(3) the British Army

(4) the bureaucracy

42. After the Crimean War, the sanitary conditions in Britain were

(1) much worse for the soldiers than for the civilians

(2) far superior to that of other countries

(3) as bad as that of the battlefields

(4) uniformly unsatisfactory in England and Europe

43. The author of the passage

(1) totally rejects the assessment of Nightingale by Summers

(2) fully endorses the views of the editors of Nightingale's letters

(3) views Nightingale's efforts as premature

(4) acknowledges the modern thinking and creative brilliance of her, though she might not have achieved all her goals

44. Andy Summers argues that the Nightingale's heroic reputation was due to

(1) her heroic role in the Crimean War

(2) her supervisory role in guiding female nurses

(3) her contribution to the relief of the wounded solders

(4) the exaggerated accounts of her work by the contemporary newspapers

45. In the final analysis, the author of the passage

(1) merely summarises the two assessments of Nightingale

(2) refutes Summer's arguments point by point

(3) completely agrees with the second assessment

(4) gives a balanced judgement of Nightingale

Directions for Questions No. 46 to 50 : *Each of these questions consists of a word in capital letters, followed by four options. Choose the option that is most similar in meaning to the word in capital letters, in each case.*

46. AUTARKY

(1) dictatorship (2) self-sufficiency

(3) dependency (4) ownership

47. BLITZKRIEG

(1) cold wave (2) swell

(3) a sudden military attack (4) destruction

48. AVARICE

(1) amusing (2) greed

(3) anger (4) desire

49. AVENGE

(1) defeat (2) destroy

(3) take vengeance (4) distort

50. BALDERDASH

(1) nonsense (2) talkative

(3) abuse (4) adulation

Directions for Questions No. 51 to 55 : *Each of these questions consists of a word in capital letters followed by four words or phrases. Choose the alternative that is most nearly opposite in meaning to the word in the capital letters, in each case.*

51. EQUITY

(1) concession (2) unfairness

(3) magnanimity (4) mercy

52. HARMONY

(1) friendliness (2) matrimony

(3) discord (4) peace

53. REGRESSIVE

(1) leading (2) progressive

(3) declining (4) decadent

54. URBANE

(1) crude (2) stylish

(3) modern (4) ancient

55. MELANCHOLY

(1) sorrowful (2) cheerful

(3) complaining (4) unmindful

Directions for Questions No. 56 to 60 : *Each of these questions consists of a capitalized word followed by four sentences in which the word has been used in different ways. Choose the option in which the usage of the word is incorrect or inappropriate.*

56. BEAR

(1) She could bear all the family burdens but not the insulting treatment of her husband.

(2) My colleague will bear me out that I am right.

(3) The bearer is bearing the plates for guests.

(4) Even the strongest person cannot bear unending miseries.

57. CALL

(1) Call the police when you are in distress.

(2) I will call on my teacher this evening.

(3) Do not call me for every small task.

(4) Call the names of your friends and enemies.

58. BRINK

(1) The general led his army to the brink of disaster.

(2) The company was on the brink of closure last year.

(3) The senior managers should not brink a situation of chaos.

(4) The government's brinkmanship nearly led to a war.

59. FEED

(1) The animals in the zoo do not have enough feed.

(2) The system needs continuous feedback.

(3) He bites the hand that feeds him every day.

(4) Please feed fast or else you will miss the bus.

60. MARRY

(1) He married twice in two years.

(2) She refused to marry him.

(3) The father wanted to marry off his only daughter.

(4) He married himself away for money.

Directions for Questions No. 61 to 65 : *In each of these questions, a related pair of words in capital letters is followed by four alternative pairs of words. Select the pair that best expresses a relationship similar to that expressed by the pair in capital letters.*

61. WAR : CEASEFIRE

(1) negotiations : agreement
(2) strike : procession
(3) build : paint
(4) crop : irrigate

62. TRAGEDY : CATHARSIS

(1) Aristotle : Poetics
(2) Homer : Iliad
(3) Shakespeare : Sonnets
(4) Tagore : Geetanjali

63. SATIRE : SARCASM

(1) criticism : attack
(2) human folly : ridicule
(3) praise : win
(4) delate : disprove

64. SCOOP : JOURNALISM

(1) crime : police
(2) business : market
(3) sensation : breaking news
(4) defamation : court case

65. DITHERING : NERVOUS

(1) soft : appeasment
(2) confused : unsure
(3) weak : indecisive
(4) willing : inaction

Directions for Questions No. 66 to 70 : *Each of these questions consists of a sentence followed by four alternatives. Select the alternative that conveys the same meaning as the original sentence in the question in each case.*

66. Mahatma Gandhi would have never behaved the way the present day world leaders have in the matter of war in Iraq.

(1) Mahatma Gandhi would have been just ignored.
(2) Gandhi would have supported the US and the UK.
(3) Gandhi would have supported limited use of force.
(4) He would have made all efforts to stop the war and minimise the sufferings of Iraqi people.

67. They were ready to crawl when they were just asked to bend.

(1) They were very flexible and adjustable.
(2) They did not understand the meaning of 'bend'.
(3) They were so slavish that they were ready to do anything to please those in power.
(4) They had no alternative other than obeying.

68. The army fought like one man till the end.

(1) The army had only one man to fight.

(2) The army was highly disciplined and determined.

(3) The army did not have a commander.

(4) The army was not properly trained to retreat.

69. Kamla would have deserted Surender but for the children.

(1) Kamla was a devoted wife.

(2) Kamla did not break her marriage because of her love for her children.

(3) Surender was nice, and yet Kamla was unhappy.

(4) Kamla was against her marriage with Surender from the beginning.

70. Had I known his true character, I would not have tolerated him for fifteen years.

(1) I did not understand his true character.

(2) He was alright for the fifteen years.

(3) He was so cunning that I did not see through him earlier.

(4) He has always been like that but I tolerated him.

Directions for Questions No. 71 to 75: *Each of these questions consists of a sentence with four parts underlined. Select the part which is not acceptable as per standard written English.*

71. We selected a group of doctors (1) that have agreed (2) to work in the (3) tsunami affected areas. (4)

72. They had left for England (1) when the news arrived (2) that their project has been accepted (3) by the government. (4)

73. In a democracy (1) it is the numbers that (2) always decides the rightness (3) or the wrongness of an issue. (4)

74. These set of books (1) I bought yesterday (2) but today my cousin from the US (3) also presented me with the same set. (4)

75. It might rain in the evening (1) if the clouds are any indication (2) but we will not be sure (3) because the weather is unpredictable. (4)

Directions for Questions No. 76 to 80 : *Each of these questions consists of a sentence with two blanks, followed by four alternative sets of words. Choose the set of words that best fits the meaning of the sentence as a whole.*

76. Though he was supposedly a _____ of the poor, his track record _____ that impression.

(1) critic — confirmed

(2) friend — belied

(3) opponent — maintained

(4) supporter — convinced

77. Dr. A.P.J. Abdul Kalam, even as President of India, maintained his _____ that many found it _____ to emulate.

(1) simplicity — difficult

(2) honesty — easy

(3) aloofness — convenient

(4) tradition — unnecessary

78. Greatness is usually _____ with simplicity and honesty but sometimes it may not be _____ .

(1) linked — possible

(2) associated — true

(3) attributed — correct

(4) delinked — easy

79. He was extremely suspicious of his _____ and soon he found _____ to support him.

(1) friends — none

(2) enemies — many

(3) subordinates — all

(4) luck — money

80. People judge the leaders, not by their words but by their _____ , and yet leaders manage to _____ the people.

(1) life — love

(2) deeds — deceive

(3) promises — lead

(4) help — support

TEST III

QUANTITATIVE APTITUDE

81. The difference between the place value and face value of 5 on the number 87653421 is

(1) 53416 (2) 49995

(3) 4995 (4) 5341

82. Find the greatest number which divides 285 and 1249, leaving remainders 9 and 7 respectively.

(1) 138 (2) 148

(3) 135 (4) 145

83. Which of the following numbers is divisible by 3 ?

(1) 24357806 (2) 35769812

(3) 83479560 (4) 3336433

84. Find the value of $1063 \times 127 - 1063 \times 27$.

(1) 10630 (2) 106300

(3) 10000 (4) 100

85. A fraction equivalent to $\frac{3}{5}$ is

(1) $\frac{3 + 2}{5 + 2}$ (2) $\frac{3 - 2}{5 - 2}$

(3) $\frac{3 \times 2}{5 \times 2}$ (4) $\frac{3 \times 2}{5 - 2}$

86. $8 + 4 \div 2 \times 5 = ?$

(1) 30 (2) 50

(3) 18 (4) 20

87. The distance between Richa's house and her school hostel is 61 km. For reaching her house from the hostel, she covers 54 km 860 m by taxi, 5 km 65 m by tonga and the rest of the distance by rickshaw. How much distance did Richa cover by rickshaw ?

(1) 1·075 km

(2) 10·75 km

(3) 0·1075 km

(4) 0·0107 km

88. Mona's father is thrice as old as Mona. After 12 years, his age will be twice that of his daughter. Find their present ages (in years).

(1) 12, 36 (2) 13, 39

(3) 14, 42 (4) 15, 45

89. If the cost of 25 packets of 12 pencils each is Rs. 750, then the cost of 30 packets of 8 pencils each is

(1) Rs. 600 (2) Rs. 720

(3) Rs. 640 (4) Rs. 800

90. If 45 : x : : 25 : 35, then the value of x is

(1) 63 (2) 72

(3) 54 (4) 60

91. The diagonals of a quadrilateral bisect each other at right angles. This quadrilateral is

(1) a rectangle

(2) a rhombus

(3) a kite

(4) a triangle

92. The sides of a rectangle are in the ratio 5 : 4. If its perimeter is 72 cm, then its length is

(1) 40 cm (2) 30 cm

(3) 20 cm (4) 10 cm

93. Devi purchased a house for Rs. 4,52,000 and spent Rs. 28,000 on its repairs. She had to sell it for Rs. 4,68,000. Find her profit or loss percent.

(1) 1·5% (2) 2·5%

(3) 3·5% (4) 4·5%

94. Find the product of $-7pqr$, $3p^2q$ and $-2pr^2$.

(1) $-42\ p^4q^2r^3$ (2) $-6\ p^4q^2r^3$

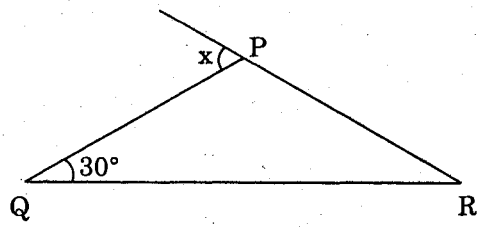
(3) $42\ p^4q^2r^3$ (4) $36\ p^3q^2r^3$

95. I have some 5-rupee coins and some 2-rupee coins. The number of 2-rupee coins is 4 times that of 5-rupee coins. If I have Rs. 117 in all, find the number of coins of 5-rupee and 2-rupee denomination.

(1) 7, 28 (2) 8, 32

(3) 9, 36 (4) 10, 40

96. Find the value of x in the figure given below, where Δ PQR is isosceles with PQ = PR.



(1) 120° (2) 105°

(3) 90° (4) 60°

97. Find the surface area of a cuboid whose length, breadth and height are respectively 10 cm, 8 cm and 5 cm.

(1) 300 cm^2 (2) 320 cm^2

(3) 330 cm^2 (4) 340 cm^2

98. How many different numbers can be formed by taking 3 digits at a time out of the 5 digits 2, 4, 6, 8, 9 ?

(1) 30 (2) 40

(3) 50 (4) 60

99. The value of x in the expression $2^x + \frac{1}{2^x} = \frac{65}{8}$ is

(1) 2 or -2 (2) 3 or -3

(3) 4 or -4 (4) 5 or -5

100. Simplify :

$$\sqrt{3} + 2\sqrt{48} + \sqrt{12} - 2\sqrt{75}$$

(1) $2\sqrt{3}$

(2) $\sqrt{3}$

(3) $3\sqrt{3}$

(4) $3\sqrt{2}$

101. Shyam was driving to Bharatpur when he spotted a big white parrot on the side of the road. He screeched to a stop, jumped out of his car. He saw the outline of a number on the parrot. He couldn't quite see the number, but he knew it was a 4 digit number. And :

(i) He remembered seeing a number 1.

(ii) In the hundred's place he remembers the number is 3 times the number in the thousand's place.

(iii) He said the number in the one's place is 4 times the number in the ten's place.

(iv) Finally he said the number 2 is sitting in the thousand's place.

What is the number ?

(1) 2614 (2) 1314

(3) 3914 (4) 2641

102. Ehsan decided to grow a garden so he could make salad. He wants to make it 10·1 m long and 4·2 m wide. However, in order to avoid animals from entering his garden he must make a fence surrounding the garden. He decides to make the fence 11·2 m long and 5·0 m wide. What is the area between the fence and the garden ?

(1) 12·58 m^2

(2) 13·58 m^2

(3) 14·58 m^2

(4) 15·58 m^2

103. Jenny bought 7 T-shirts, one for each of her seven brothers, for \$9·95 each. The cashier charged her an additional \$13·07 in sales tax. She left the store with a measly \$7·28. How much money did Jenny start with ?

(1) \$60 (2) \$70

(3) \$80 (4) \$90

104. D gave C half of his pots. C gave J half of the pots she received from D. J kept 8 of those pots and gave the remaining 10 to A. How many pots did D give to C ?

(1) 72 (2) 64

(3) 48 (4) 36

105. On an average day, Americans spend \$958,904·00 buying video games. Of this total \$767,123·00 is spent on X-Box games. How much do they spend on other video games in a week ?

(1) \$191,781

(2) \$191,718

(3) \$1,324,467

(4) \$1,342,467

106. The average monthly rainfall for 6 months was 28·5 mm. If it had rained 1 mm more each month what would the average have been ?

(1) 29 mm (2) 29·5 mm

(3) 34 mm (4) 34·5 mm

107. 99^2 is equal to

(1) 9921 (2) 9901

(3) 9801 (4) 9081

108. How many Thai Baht can you buy with $300 Canadian knowing the exchange rate of 20 Baht/Canadian dollar ?

(1) 6000 Baht (2) 600 Baht

(3) 15 Baht (4) 1500 Baht

109. SALE : Celtic Bakery Sale

White Bread	–	2 for $1·25
Rye Bread	–	2 for $1·35
Onion Rolls	–	6 for $1·00
Hamburger Buns	–	6 for $0·85
Hot Dog Buns	–	6 for $0·69

Melanie and Kevin are going shopping for their mother at the Celtic Bakery. They were told to buy 15 onion rolls, 10 hamburger buns and 2 loaves of rye bread. How much will it cost them ? (Do calculations upto 2 decimals and round-off)

(1) $2·50 (2) $1·42

(3) $1·35 (4) $5·27

110. If you saved Rs. 2·00 on January 1, Rs. 4·00 on February 1, Rs. 6·00 on March 1, Rs. 8·00 on April 1, and so on, how much money would you save in one year ?

(1) Rs. 136·00 (2) Rs. 146·00

(3) Rs. 156·00 (4) Rs. 166·00

111. A salesman's term were changed from a flat commission of 5% on all his sales to a fixed salary of Rs. 1000 plus 2·5% commission on all sales exceeding Rs. 4000. If his remuneration according to the new scheme was Rs. 600 more than by the first scheme, what was his sales worth ?

(1) Rs. 6000

(2) Rs. 8000

(3) Rs. 12000

(4) Rs. 16000

112. The sum of the cubes of three numbers is 8072 and the ratio of the first to the second as also of the second to the third is as 3 : 2. What is the second number ?

(1) 4 (2) 6

(3) 9 (4) 12

113. $\dfrac{1{\cdot}1 \times 1{\cdot}1 \times 1{\cdot}1 + 0{\cdot}1 \times 0{\cdot}1 \times 0{\cdot}1}{1{\cdot}1 \times 1{\cdot}1 - 0{\cdot}1 \times 0{\cdot}1} = ?$

(1) 1·1 (2) 1·01

(3) 1·11 (4) 1·1101

114. What sum of money is divided between A, B and C if B and C together get Rs. 100 and C and A together get Rs. 150 and A gets twice as much as B ?

(1) Rs. 200 (2) Rs. 225

(3) Rs. 240 (4) Rs. 250

115. The total number of undergraduate students in a college is 270. If 2/3 of the number of students in the Science stream is same as 3/4 of the number of students in the Arts stream and 3/5 of the number of students in the Commerce stream, how many are the Science students ?

(1) 75 (2) 80

(3) 90 (4) 100

116. $\dfrac{\frac{1}{4} - \frac{1}{6} - \frac{1}{48}}{\frac{1}{4} - \left(\frac{1}{6} - \frac{1}{48}\right)} \div \dfrac{\frac{1}{4} \times \frac{1}{6} - \frac{1}{48}}{\frac{1}{4} \times \left(\frac{1}{6} - \frac{1}{48}\right)} = ?$

(1) 1 (2) 2

(3) $\frac{21}{20}$ (4) $\frac{20}{21}$

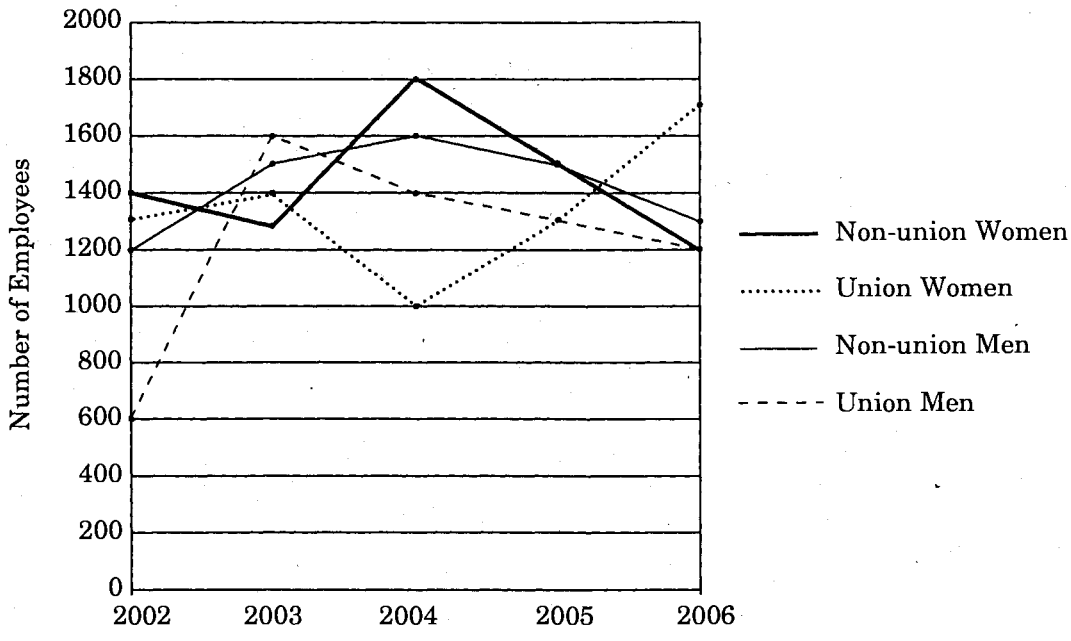
117. The distance of a star from the Earth is 9315000 miles. If light travels at 18630 miles per second, how long does it take light from that star to reach Earth ?

(1) 0·0005 sec (2) 0·05 sec

(3) 5 secs (4) 500 secs

Directions for Questions No. 118 to 127 : *These questions are based on the data presented graphically in the following figure :*

Graph showing number of employees of different categories in a factory



118. What was the total number of employees in the year 2006 ?

(1) 4800 (2) 5000

(3) 5200 (4) 5400

119. What was the ratio of non-union : union men in 2002 ?

(1) 3 : 2 (2) 2 : 3

(3) 2 : 1 (4) 1 : 2

120. In which year was the ratio of non-union : union women 9 : 5 ?

(1) 2002 (2) 2003

(3) 2004 (4) 2005

121. The minimum number of employees of any one category in any one year was of

(non-union / union); *(men / women)*; *(year)*

(1) Union; men; 2004

(2) Union; men; 2003

(3) Non-union; women; 2004

(4) Union; men; 2002

122. From 2004 – 2006, on an average, the factory has employed the maximum number of individuals in one category viz. _____ *(men / women)* of _____ *(non-union / union)* category.

(1) men; non-union (2) women; non-union

(3) men; union (4) women; union

123. The average number of employees of all categories in 2005 and 2006 was

(1) 5550 (2) 5500

(3) 5800 (4) 5900

124. The year in which the total number of women and men employed was the same was

(1) 2002 (2) 2003

(3) 2004 (4) 2005

125. The year in which the minimum number of people were employed was

(1) 2002 (2) 2003

(3) 2004 (4) 2005

126. The ratio of non-union men and non-union women in 2004 was

(1) 7 : 8 (2) 8 : 9

(3) 9 : 8 (4) 8 : 7

127. The years in which the maximum number of people were employed were

(1) 2002; 2003 (2) 2002; 2004

(3) 2002; 2005 (4) 2003; 2004

128. One clock gains 15 seconds per day and another loses 45 seconds per day. After what length of time will the first clock be 12 hours ahead of the second ?

(1) 120 days (2) 240 days

(3) 480 days (4) 720 days

129. A number when halved is half as short of 100 as it exceeds 100 now. What is the number ?

(1) 110 (2) 132

(3) 144 (4) 150

130. At a club meeting, each member shook hands with every other member present. If there were totally 190 hand-shakes, how many members were there at the meeting ?

(1) 190 (2) 100

(3) 95 (4) 20

TEST IV
REASONING

Directions for Questions No. 131 – 135. *Read the information given below and answer the questions given below it.*

There are five persons A, B, C, D and E. One of them is a doctor, one is an engineer and another an executive. C and E are unmarried ladies and do not work. None of the ladies are engineers or doctors. There is a married couple in which D is the husband. B is neither an engineer nor an executive and is a male friend of A.

131. Who is a doctor ?

(1) A (2) D

(3) B (4) C

132. Who is an executive ?

(1) B (2) A

(3) D (4) C

133. Who is an engineer ?

(1) D (2) A

(3) B (4) C

134. Who is the wife of D ?

(1) C (2) A

(3) E (4) B

135. The three ladies are

(1) A, B and E

(2) C, D and B

(3) B, A and C

(4) A, C and E

Directions for Questions No. 136 – 138. *Each question contains six statements followed by four sets of combinations of three. Choose the set in which the statements are logically related.*

136. A. All apples are fruits.

B. All fruits are sweet.

C. All apples are sweet.

D. All apples are priced.

E. All apples are red.

F. All fruits are available.

(1) ABC (2) BCD

(3) ADE (4) DEF

137. A. All snakes are reptiles.

B. All reptiles are not snakes.

C. All reptiles are cold-blooded.

D. All snakes lay eggs.

E. All reptiles lay eggs.

F. Snakes are cold-blooded.

(1) ADE (2) BED

(3) ABE (4) ACF

138. A. Some men are bald.

B. Bald men are intelligent.

C. Raman is a man.

D. Raman is bald.

E. Raman is intelligent.

F. All men are intelligent.

(1) ABF (2) BDE

(3) CDB (4) EBF

Directions for Questions No. 139 – 142 : *Which alternative applies to the following statements and their assumptions ?*

139. *Statement :*

A good system of education in a country is the flower of economic development; it is also its seed.

Assumptions :

I. Economic development leads to educational development in a country.

II. Educational development leads to economic development in a country.

(1) Only I is implicit (2) Only II is implicit

(3) Both I and II are implicit (4) Neither I nor II is implicit

140. *Statements :*

There are many Indians who are honest. Mohan is an Indian.

Assumptions :

I. Mohan is honest.

II. Mohan is not honest.

(1) Only I is implicit (2) Only II is implicit

(3) Both I and II are implicit (4) Neither I nor II is implicit

141. *Statements :*

I. All birds are dogs.

II. Some dogs are cats.

Assumptions :

I. Some cats are not dogs.

II. All dogs are not birds.

(1) Only I is implicit (2) Only II is implicit

(3) Both I and II are implicit (4) Neither I nor II is implicit

142. *Statements :*

There is one thing as important as studying. And that is how much is understood.

Assumptions :

I. Studying and understanding go hand in hand.

II. Understanding is as important as studying.

(1) Only I is implicit (2) Only II is implicit

(3) Both I and II are implicit (4) Neither I nor II is implicit

143. Showing a lady in the park, Vineet said "She is the daughter of my grandfather's only son." How is Vineet related to that lady ?

(1) Father (2) Son

(3) Brother (4) Mother

144. Introducing Kamala, Mahesh said "Her father is the only son of my father." How was Mahesh related to Kamala ?

(1) Brother (2) Father

(3) Uncle (4) Son

145. In a certain code CHAIR is written as EGCHT. How is AUDIT written in that code ?

(1) CTFHV (2) CSFHV

(3) BTFHV (4) CTEHV

146. In a certain code, a number 13479 is written as AQFJL and 2568 is written as DMPN. How is 396824 written in that code ?

(1) QLPNMJ (2) QLPNMF

(3) QLPMNF (4) QLPNDF

147. In a certain code 'RATIONAL' is written as 'RTANIOLA'. How would TRIBAL be written in that code ?

(1) TRIALB (2) TIRALB

(3) TIRLBA (4) TIRABL

148. A and B start walking in opposite directions. A covers 3 km and B covers 4 km. Then A turns right and walks 4 km while B turns left and walks 3 km. How far is each from the starting point ?

(1) $\sqrt{50}$ km (2) 4 km

(3) $\sqrt{100}$ km (4) 8 km

Directions for Questions No. 149 – 155 : *In these questions, find the missing numbers.*

149.

3	5	8	7
4	6	4	6
5	2	2	3
58	58	62	?

(1) 126 (2) 122

(3) 128 (4) 124

150. 6, 15, 36, 75, ?

(1) 231 (2) 138

(3) 214 (4) 150

151. 5 : 7 : : ? : 28

(1) 20 (2) 14

(3) 56 (4) 65

152. 15, 45, ?, 405

(1) 90 (2) 75

(3) 135 (4) 51

153. 5, 7, 11, 19, ?

(1) 38 (2) 32

(3) 35 (4) 42

154. 2, 4, 12, 48, ?

(1) 96 (2) 240

(3) 200 (4) 480

155. $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}$, ?

(1) $\frac{1}{64}$ (2) $\frac{1}{32}$

(3) $\frac{1}{30}$ (4) $\frac{1}{60}$

156. A cube is painted green on all sides. It has been cut into 64 cubes of equal size. How many of these smaller cubes are painted on one side only ?

(1) 8 (2) 4

(3) 16 (4) 24

157. In the context of the preceding question, how many smaller cubes are not painted at all ?

(1) 8 (2) 4

(3) 6 (4) 1

158. In the context of the same cube, how many of these smaller cubes would have three sides painted ?

(1) 6 (2) 4

(3) 8 (4) 12

159. If $63 + 25 = 16$
$12 + 18 = 12$
$23 + 17 = 13$
Then $54 + 22 = ?$

(1) 13

(2) 17

(3) 20

(4) 24

160. In what time will a sum of money double itself at 5% per annum simple interest ?

(1) 10 years

(2) 20 years

(3) 15 years

(4) 17 years

161. Supposing that telegraph poles on a rail-road are 50 metres apart, how many will be passed by a train in 4 hours if the speed of the train is 45 km per hour ?

(1) 3601

(2) 3599

(3) 360

(4) 3600

162. Madhubala's mother was three times older than Madhubala 5 years ago. After 5 years, she will be twice as old as Madhubala. How old is Madhubala today ?

(1) 10 years

(2) 5 years

(3) 15 years

(4) 12 years

163. Two men start together to walk a certain distance, one at 4 km/hour and the other at $3\frac{1}{2}$ km an hour. The former arrives half an hour before the latter. Find the distance.

(1) 5 km

(2) 14 km

(3) 20 km

(4) 12 km

164. A directional post is erected on a crossing. In an accident, it was turned in such a way that the arrow which was first showing east is now showing south. A passerby went in a wrong direction thinking it is west. In which direction is he actually travelling now ?

(1) South (2) North

(3) East (4) West

165. How many meaningful words of four letters can be formed with letters EAML when the alphabets are not repeated ?

(1) 1 (2) 3

(3) 4 (4) 2

166. If 834726k is divisible by 8, the value of k is

(1) 6 (2) 8

(3) 4 (4) 7

167. The value of the least prime number of four digits is

(1) 1001 (2) 1003

(3) 1007 (4) 1009

168. In a year 28th February is Tuesday. If the leap year is excluded, then 28th March will be a

(1) Sunday (2) Monday

(3) Tuesday (4) Saturday

169. If A = 1, FAT = 27, then FAITH = ?

(1) 42 (2) 44

(3) 41 (4) 40

170. A glass full of milk weighs one kilogram and the glass half full of milk weighs $\frac{3}{4}$ kilogram. What is the weight of the glass ?

(1) $\frac{1}{4}$ kg (2) $\frac{1}{2}$ kg

(3) $\frac{1}{8}$ kg (4) $\frac{1}{3}$ kg

171. If $a * b = a + b - ab$, the value of $1 * 2$ is

(1) 0 (2) 2

(3) 1 (4) 5

172. At what angle, are the hands inclined, when the time is 30 minutes past 4 o'clock ?

(1) 60° (2) 45°

(3) $42\frac{1}{2}°$ (4) 50°

173. Through what degree does any hour hand shift in half an hour ?

(1) 30°

(2) 99°

(3) 180°

(4) 15°

174. The sum upto 50 terms of the following series

$3 + 2 - 5 + 3 + 2 - 5 + 3 + 2 - 5 + ...$ is

(1) 5

(2) 3

(3) 2

(4) 250

175. What is the minimum number of ducks which can swim in the following manner :
Two ducks are in front of one; two ducks are behind one duck and one duck is between two ducks.

(1) 11

(2) 9

(3) 7

(4) 3

176. What is the value of $\frac{P + Q}{P - Q}$ if $\frac{P}{Q} = 7$?

(1) $\frac{4}{3}$ (2) $\frac{2}{3}$

(3) $\frac{5}{6}$ (4) $\frac{7}{8}$

Directions for Questions No. 177 – 178 : *Unscramble the letters in the following words and find the odd man out.*

177. (1) AYM (2) UEJN

(3) UYLJ (4) UNYASD

178. (1) SERO (2) RNEOAG

(3) AONMG (4) ERPA

179. The greatest number of seven digits 5, 4, 0, 3, 2, 8, 6 used only once is

(1) 5403286 (2) 8654302

(3) 8654320 (4) 8654230

180. The least number of seven digits by using the digits 5, 4, 0, 3, 2, 8, 6 only once is

(1) 0234568 (2) 2034568

(3) 2345680 (4) 2345608

181. The difference between the greatest number and the least number of five digits by using the digits 0, 1, 2, 3, 4 only once is

(1) 41076 (2) 32976

(3) 40976 (4) 33976

Directions for Questions No. 182 – 188. *In each of the following questions a certain relationship exists between the two words on the LHS. Determine the suitable word from the given options for RHS.*

182. Doctor : Nurse : : ? : Follower

(1) Worker (2) Leader

(3) Employer (4) Union

183. Sorrow : Death : : Happiness : ?

(1) Cry (2) Birth

(3) Love (4) Dance

184. Bird : Fish : : Aeroplane : ?

(1) Submarine (2) Ship

(3) Boat (4) Crocodile

185. Sculptor : Statue : : Poet : ?

(1) Chisel (2) Pen

(3) Verse (4) Lane

186. Medicine : Sickness : : Book : ?

(1) Ignorance (2) Knowledge

(3) Author (4) Teacher

187. Cunning : Fox : : Timid : ?

(1) Elephant (2) Rabbit

(3) Leopard (4) Ass

188. Annihilation : Fire : : Cataclysm : ?

(1) Earthquake (2) Steam

(3) Emergency (4) Flooding

Directions for Questions No. 189 – 193 : *In each of the following questions four pairs of words are given out of which the words in three pairs have a common relationship. Choose the pair in which the words are differently related.*

189. (1) Beautician : Parlour
(2) Chemist : Medicine
(3) Lawyer : Court
(4) Painter : Gallery

190. (1) Time : Seconds
(2) Resistance : Ohm
(3) Pressure : Barometer
(4) Length : Metre

191. (1) Gnu : Antelope
(2) Pelican : Reptile
(3) Elk : Deer
(4) Shark : Fish

192. (1) Waist : Belt
(2) Neck : Tie
(3) Wrist : Band
(4) Shoe : Laces

193. (1) Avesta : Parsi
(2) Torah : Jew
(3) Tripitaka : Buddhist
(4) Temple : Hindu

194. In a certain code 'STABILIZE' is written as UVCDKNKUG. How would CRICKET be written in that code ?

(1) DSJDLFS (2) KTMEVGV
(3) ETKEMGV (4) EKTMEGV

195. In a certain code JODHPUR is written as RUJODHP and LATUR is written as RULAT. How is CANDIDATE written in that code ?

(1) ETCANDIDA (2) ETADIDNAC
(3) CANDIETAD (4) TECANDIDA

196. If GODAVARI is coded as KSHEZEVM, how can NARMADA be coded ?

(1) REQUHE

(2) REVQEHE

(3) RDVQEHE

(4) REUPEHE

197. Five boys took part in a race. Ram finished before Mohan but behind Gopal. Abbas finished before Sailesh but behind Mohan. Who won the race ?

(1) Ram

(2) Gopal

(3) Mohan

(4) Abbas

198. In a row of girls, if Seeta who is 10^{th} from the left and Lina who is 7^{th} from the right, interchange their seats, Seeta becomes 15^{th} from the left. How many girls are there in the row ?

(1) 17

(2) 20

(3) 22

(4) 21

199. Ashok started walking towards north. After walking 30 metres he turned left and walked 40 metres. He then turned left and walked 30 metres. He again turned left and walked 50 metres. How far was he from his original position ?

(1) 12 m

(2) 15 m

(3) 10 m

(4) 20 m

200. A police inspector drove 30 km towards west and then 40 km towards south. From this place, he drove 60 km towards east and then 40 km towards north. At what distance is he from the starting point ?

(1) 30 km

(2) 50 km

(3) 60 km

(4) 130 km

SPACE FOR ROUGH WORK