

**OPENMAT - XXVII : Entrance Test for  
Management Programmes 2010**

February, 2010

14452

**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 end of the Test Booklet.
- The Test Booklet has the following *four* 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 and 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 with '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 programmes 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 the abbreviation "ASSOCHAM" stand for ?
  - (1) Associated Chambers of Commerce and Industry
  - (2) Associated Chambers of Chemicals and Metals
  - (3) Association of Chemists and Metallurgists
  - (4) Association of Chemists, Horticulturist, Anthologists and Metallurgists
  
2. Who is the author of the book "Romancing with Life" ?
  - (1) Bill Clinton
  - (2) Kapil Dev
  - (3) Devanand
  - (4) Shashi Tharoor
  
3. What does the letters XP stand for in the product Microsoft XP ?
  - (1) Extended product
  - (2) Extra Pampering
  - (3) Experience
  - (4) Entry level product
  
4. Pablo Picasso, the famous painter was :
  - (1) French
  - (2) Italian
  - (3) Flemish
  - (4) Spanish
  
5. Which Mughal Emperor prohibited the use of tobacco ?
  - (1) Baber
  - (2) Jahangir
  - (3) Aurangzeb
  - (4) Muhammed Shah
  
6. Which of the following does *not* have an Oil Refinery ?
  - (1) Tarapore
  - (2) Digboi
  - (3) Barauni
  - (4) Mangalore
  
7. The Nobel Prize for literature in the year 2009 was won by :
  - (1) Ada Yonath
  - (2) Herta Mueller
  - (3) Carol Greider
  - (4) Jean-Marie Gustave le Clezio
  
8. The year in which the first man landed on the Moon was :
  - (1) 1962
  - (2) 1965
  - (3) 1969
  - (4) 1970
  
9. The country rated highest on the Human Development Index as per the UNDP, HDI-2009 report is :
  - (1) Sweden
  - (2) Norway
  - (3) Australia
  - (4) U.S.A.
  
10. The first Indian sports woman to win a medal in World Athletics is :
  - (1) P.T. Usha
  - (2) Shiny Wilson
  - (3) Anjali Bhagwat
  - (4) Anju B. George

11. Durand Line is the line dividing :
- (1) Poland and Germany                      (2) Pakistan and Afghanistan  
(3) India and Tibet                              (4) France and Germany
12. A south Rajasthani tribe earning its living by song and dance :
- (1) Moors                      (2) Khasis                      (3) Garasia                      (4) Mayas
13. During Cardiac failure, which of the following is advised as a first aid ?
- (1) Mouth to mouth resuscitation      (2) Giving external cardiac massage  
(3) Giving cool water to drink              (4) Giving complete body massage
14. The video games Xbox is a product of :
- (1) Sega                      (2) Sony                      (3) Intel                      (4) Microsoft
15. The main chemical substance present in the bones and teeth of animals is :
- (1) Sodium chloride                      (2) Sugar  
(3) Calcium phosphate                      (4) Calcium sulphate
16. Why is it easier to swim in sea than in a river ?
- (1) Density of sea water is lower than the density of the river water  
(2) Density of sea water is higher than the density of the river water  
(3) Waves in the sea help us to float  
(4) River is less deeper than sea
17. Hydrogen was discovered by :
- (1) Priestley                      (2) Boyle                      (3) Charles                      (4) Cavendish
18. Eudiometer is used for measuring :
- (1) Volume changes in chemical reactions between gases  
(2) Electric current of small magnitude  
(3) Distance covered by wheeled vehicles  
(4) Measuring optical activity
19. The biggest Delta in the world is the :
- (1) Sicily Delta                      (2) Ganges Delta                      (3) Caspian Delta                      (4) Nippon Delta

20. Which part of the body is affected by "Meningitis" ?  
(1) Lungs (2) Intestines  
(3) Lining of the chest wall (4) Spinal cord and Brain
21. Which is the world's tallest structure ?  
(1) KVLV-TV mast (2) Burj Khalifa (3) Taipei Towers (4) CN Tower
22. Which company's famously advertised vision statement is 'The Network is the Computer' ?  
(1) Cisco Systems (2) Lucent Technologies  
(3) Sun Microsystems (4) Nortel Networks
23. The Essar group of companies has been promoted by :  
(1) Ruis (2) Ambanis (3) Goenkas (4) Kanorias
24. The acronym USB stands for :  
(1) Universal System Board (2) Universal Synchronized Bus  
(3) Universal Serial Bus (4) Universal System Bus
25. 'Make Believe' is the tag line of which company ?  
(1) Philips (2) Motorola (3) Sony Ericsson (4) Nokia
26. Which is the third highest peak in India ?  
(1) Kanchenjunga (2) Nanga Parbat  
(3) Gasher Brum (4) Dunagiri
27. The country that accounts for nearly one-third of the total teak production of the world is :  
(1) Bangladesh (2) Zambia (3) Myanmar (4) India
28. The city that is the biggest centre for manufacture of automobiles in the world ?  
(1) Gurgaon (2) Tokyo (3) Detroit (4) Berlin
29. World Literacy day is celebrated on :  
(1) 8<sup>th</sup> August (2) 8<sup>th</sup> September (3) 8<sup>th</sup> October (4) 8<sup>th</sup> July
30. The place that is known as the roof of the world is :  
(1) Cuba (2) Japan (3) Tibet (4) Romania

**TEST - II**  
**ENGLISH LANGUAGE**

*Directions for Questions 31 to 45 :*

*This section consists of two passages followed by questions based on the contents of the passages. Answer the questions following each passage based on what is stated or implied in the passage.*

**Passage 1**

*Weathering* refers to all the ways in which rocks can be broken down. It takes place because minerals formed in a particular way (say at higher temperatures, in the case of igneous rocks) are often unstable when exposed to various conditions. Weathering involves the interaction of the lithosphere (the Earth's crust) with the atmosphere and the hydrosphere (air and water). It occurs at different rates and in different ways, depending upon the climactic and environmental conditions. But all kinds of weathering ultimately produce broken minerals and rock fragments and other products of the decomposition of stone.

Soil is the most obvious and, from the human point of view, the most important result of the weathering process. Soil is the better part of the Earth's crust that is capable of sustaining plant life. Its character depends upon the nature of the rock from which it is formed. It also depends on the climate and on the relative "age" of the soil. Immature soils are little more than broken rock fragments. Over time, immature soil develops into mature soil, which contains quantities of humus, formed from decayed plant matter. Mature soil is darker, richer in microscopic life, and more conducive to plant growth.

31. The first paragraph primarily describes :
- (1) a biological process
  - (2) the process by which rocks are broken down
  - (3) the weathering of igneous rocks
  - (4) gradual changes in the Earth's weather patterns
32. The first paragraph suggests that :
- (1) rocks are formed in a particular way
  - (2) minerals formed in some ways are unstable
  - (3) all minerals are unstable
  - (4) all rocks are unstable
33. The main topic of the second paragraph is :
- (1) the evolution of soil
  - (2) the growth of plants
  - (3) a description of immature soil
  - (4) a description of mature soil

34. The main idea of entire passage is that :
- (1) weathering breaks down rocks and leads to the development of soil
  - (2) soils may be classified as mature or immature
  - (3) the process of soil development is more important to humans than is that of weathering
  - (4) the Earth's crust is constantly changing
35. Weathering is primarily an interaction between :
- (1) air and water
  - (2) the earth's crust and water
  - (3) the earth's crust and hydrosphere
  - (4) the climactic and environmental conditions

*Passage 2*

A recently issued report reveals in facts and figures what should have been known in principle, that quite a lot of business companies are going to go under during the coming decade, as tariff walls are progressively dismantled. Labour and capital valued at \$ 12 billion are to be made idle through the impact of duty free imports. As a result, 35,000 workers will be displaced. Some will move to other jobs and other departments within the same firm. Around 15,000 will have to leave the firms now employing them and work elsewhere.

The report is measuring exclusively the influence of free trade with Europe. The authors do not take into account the expected expansion of production over the coming years. On the other hand, they are not sure that even the export predictions they make will be achieved. For this presupposes that a suitable business climate allows the pressure to increase productivity materialise.

There are two reasons why this scenario may not happen. The first one is that industry on the whole is not taking the initiatives necessary to adapt fully for the new price situation it will be facing as time goes by.

This is another way of saying that the manufacturers do not realise what lies ahead ? The government is to blame for not making the position absolutely clear. It should be saying that in ten years' time tariffs for all industrial goods imported from Europe will be eliminated. There will be no adjustment assistance for manufacturers who cannot adapt to this situation.

The second obstacle to adjustment is not stressed in the same way in the report; it is the attitude of the service sector. Not only are service industries unaware that the Common Market treaty concerns them too, they are artificially insulated from physical pressures of international competition. The manufacturing sector has been forced to apply its nose to the grindstone for some time now, by the increasingly stringent import liberalisation programme.

The ancillary services on which the factories depend show a growing indifference to their work obligations. These seem unaware that overmanned ships, underutilised ports, and repeated work stoppages slow the country's attempts to narrow the trade gap. The remedy is to cut the fees charged by these services so as to reduce their earnings—in exactly the same way that earnings of industrial undertakings are reduced by the tariff reduction programme embodied in the treaty with the European Community.

There is no point now in dismissing 15000 industrial workers from their present jobs during the coming decade, if all the gain in productivity is wasted by costly harbour, transport, financial, administrative and other services. The free trade treaty is their concern as well. Surplus staff should be removed, if need be, from all workplaces, not just from the factories. Efficiency is everybody's business.



36. The attitude of the report, as described in the passage, may be best expressed as :
- (1) Harshly condemning, because industry is not more responsive to the business climate
  - (2) Optimistic, the government will compel the industry to make the required change
  - (3) Objective, in assessing the influence of trade on employment
  - (4) Pessimistic, that anything can be done to reduce the trade gap
37. What is the meaning of the term *free trade* as given in the passage ?
- (1) Unlimited sale of goods in Europe
  - (2) Trade on a barter basis
  - (3) The elimination of tariffs
  - (4) Sale of price discounted goods to European countries
38. It can be inferred that the term adjustment assistance used in the paragraph, four mainly refers to :
- (1) unemployment compensation
  - (2) some sort of financial assistance to manufacturers hurt by free trade
  - (3) aid in reducing work stoppages
  - (4) subsidy payments to increase exports
39. The author's central recommendation seems to be that :
- (1) redundant labour should be removed in all sectors
  - (2) unemployment should be avoided at all costs
  - (3) governments should control the service sector
  - (4) tariffs should not be lowered
40. Which of the following will occur because of duty free imports ?
- (i) 12 billion dollars of capital will be idled.
  - (ii) Thirty five thousand workers will be unemployed.
  - (iii) 15,000 firms will face bankruptcy
- (1) (i) only                      (2) (ii) only                      (3) (i) and (ii) only                      (4) (ii) and (iii) only
41. According to the passage, the government is responsible for :
- (1) increasing tariffs                      (2) subsidising exports
  - (3) not explaining its position                      (4) adjustment assistance
42. Tariffs will be reduced on :
- (1) all manufactured goods                      (2) manufactured and agricultural goods
  - (3) industrial and consumer goods                      (4) industrial goods

43. Which industries will be affected by tariff reductions ?
- (i) Services  
(ii) Manufacturing  
(iii) Extracting
- (1) (i) only                    (2) (ii) only                    (3) (i) and (ii) only    (4) (i), (ii) and (iii)
44. The ancillary services have been criticised in the passage on account of :
- (1) failure to narrow the trade gap  
(2) charging high fee  
(3) not being responsive to their work obligations  
(4) repeated work stoppages
45. Which of the following titles describes the contents of the passage ?
- (1) The prospects for free trade  
(2) The government intervention in world trade  
(3) Trade with the common market  
(4) What lies ahead ?

**Directions for Questions 46 to 50 :**

*Each of these questions consists of a word in capital letters followed by four alternative words or phrases. From among the alternatives, choose the word most nearly **similar** in meaning to the word in capital letters in each case.*

46. ABET :
- (1) Conceive                    (2) Encourage                    (3) Evade                    (4) Protect
47. BANAL :
- (1) Trite                    (2) Dramatic                    (3) Philosophical                    (4) Heedless
48. BUCOLIC :
- (1) Diseased                    (2) Rustic                    (3) Repulsive                    (4) Cold
49. CALLOW :
- (1) Holy                    (2) Mild                    (3) Coloured                    (4) Youthful
50. FOMENT :
- (1) Spoil                    (2) Instigate                    (3) Interrogate                    (4) Spray

**Directions for Questions 51 to 55 :**

Each of these questions consists of a word in capital letters followed by four alternative words or phrases. From among the alternatives, choose the word most nearly **opposite** in meaning to the word in capital letters in each case.

51. GRANDIOSE :  
(1) Docile (2) Unimposing  
(3) Uncommunicative (4) Unlikely to occur
52. ENTRENCH :  
(1) Defy (2) Squander (3) Extinguish (4) Oust
53. INDUSTRY :  
(1) Pragmatism (2) Sloth (3) Abasement (4) Promptness
54. ADMONITION :  
(1) Commendation (2) Premonition (3) Hallucination (4) Trepidation
55. UNASSAUGED :  
(1) Presumed (2) Deceptive (3) Faulty (4) Soothed

**Directions for Questions 56 to 60 :**

Each of these questions consists of a sentence with one or two lines blanks, followed by four alternative words or set of words. In each case, choose the word or set of words for each blank that best fits the meaning of the sentence as a whole.

56. Citric acid gives lemons and limes their \_\_\_\_\_ taste.  
(1) temperate (2) toxic (3) tart (4) bitter
57. Alfred Hitchcock directed a number of \_\_\_\_\_ psychological dramas; among the most \_\_\_\_\_ were *Psycho* and *North by Northwest*.  
(1) timid ..... effervescent (2) thrilling ..... exciting  
(3) trivial ..... effective (4) thriving ..... boring
58. If a ruby is \_\_\_\_\_ it \_\_\_\_\_ temporarily lose its colour.  
(1) dropped ..... would (2) heated ..... will  
(3) scratched ..... does (4) scratched ..... has
59. To answer \_\_\_\_\_ is more important than \_\_\_\_\_ .  
(1) accurately ..... to finish quickly (2) right ..... a quick finish  
(3) first ..... finishing quickly (4) correct ..... your finishing quickly
60. In the desert, dry creeks may turn into raging \_\_\_\_\_ after heavy rainstorms.  
(1) trickles (2) streams (3) torrents (4) pools

**Directions for Questions 61 to 70 :**

Each of these questions consists of a sentence with some portions underlined. Identify in each case, the underlined part that is not correct as per standard written English. Mark 0 if the sentence contains no error.

61. The value of the rupee declines as the rate of inflation raises.  
(1) (2) (3) (4)
62. The duties of the secretary are to take the minutes, mailing the correspondence and calling the members before meetings.  
(1) (2) (3)  
(4)
63. Before she died, Mike Pereira's daughter who lives in the family mansion, used to take tourists to a tour of her house.  
(1) (2) (3) (4)
64. The new model costs twice more than the last year's model.  
(1) (2) (3) (4)
65. Although we are concerned about the problem of energy source we must not fail recognising the need for environmental protection.  
(1) (2) (3)  
(4)
66. Those of us who smoke should have their lungs x-rayed regularly.  
(1) (2) (3) (4)
67. The more the relative humidity rises, the worst the heat affects us.  
(1) (2) (3) (4)
68. Despite of many attempts to introduce a universal language, the effort has met with very little success.  
(1) (2) (3)  
(4)
69. If Robert Kennedy would have lived a little longer he probably would have won the election.  
(1) (2) (3) (4)
70. According to the programme prospectus, student housing is more cheaper than housing off campus.  
(1) (2) (3) (4)

**Directions for Questions 71 to 75 :**

Each of these questions consists of a related pair of words in capital letters, followed by four alternative pairs of words. Select the pair that best expresses a relationship similar to that expressed by the pair in the capitalized letters.

71. CITADEL :: DEFENSE :  
(1) chapel :: refreshment (2) marina :: refuge  
(3) warehouse :: storage (4) pillar :: supervision
72. APOSTATE :: RELIGION :  
(1) traitor :: country (2) bureaucrat :: government  
(3) jailor :: law (4) teacher :: education
73. CAMOUFLAGE :: DISCERN :  
(1) encode :: decipher (2) adorn :: admire  
(3) renovate :: construct (4) magnify :: observe
74. RUFFLE :: COMPOSURE :  
(1) flounce :: turmoil (2) provoke :: discussion  
(3) upset :: equilibrium (4) adjust :: balance
75. QUALIFY :: PARTICULAR :  
(1) restrain :: effusive (2) mollify :: agreeable  
(3) acknowledge :: specific (4) flout :: arbitrary

**Directions for Questions 76 to 80 :**

Each of these questions consists of an Idiom followed by four alternatives. Select, in each case the alternative that gives the most appropriate meaning of the idiom.

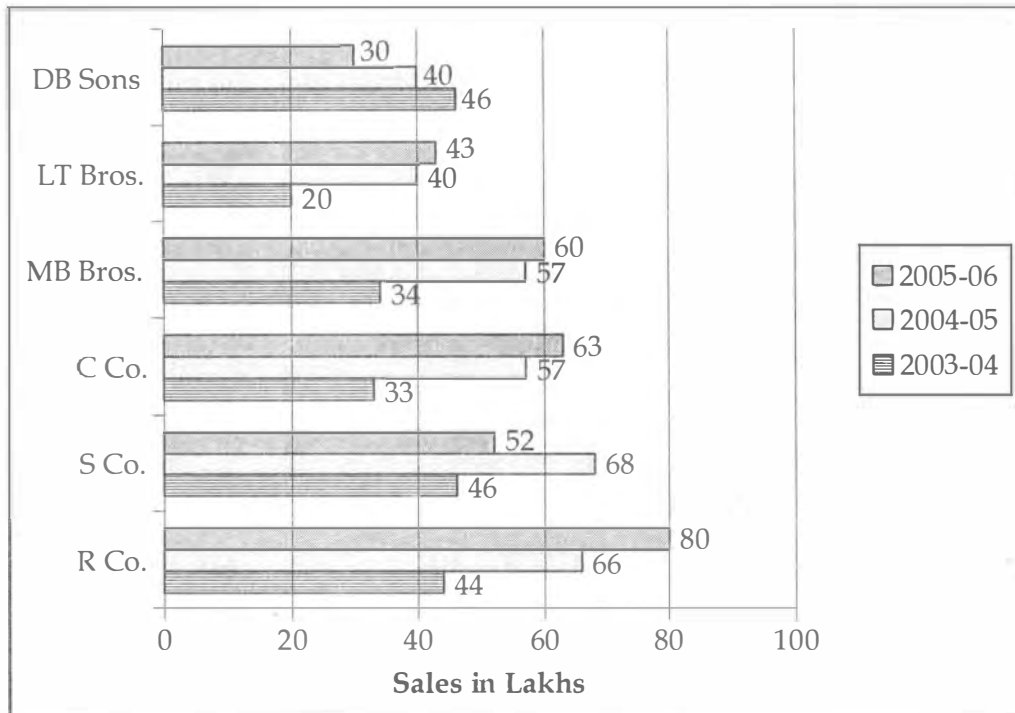
76. Get under way :  
(1) Begin or start (2) Take the under pass  
(3) Interfere (4) Get in the path of
77. Off the cuff :  
(1) Out of one's hands (2) Become free of responsibility  
(3) Spontaneous (4) Hands on
78. Run of the mill :  
(1) Extraordinary (2) Manage the business  
(3) Ordinary (4) Stock from the factory
79. Give somebody the cold shoulder :  
(1) Act unfriendly (2) Become familiar  
(3) Go too far (4) Decline
80. On pins and needles :  
(1) On a very tight budget (2) In uncomfortable discussion  
(3) Nervous and anxious (4) Fine tuned for

**TEST - III**  
**QUANTITATIVE APTITUDE**

81. If one-seventh of a number exceeds its eleventh part by 100 then the number is :  
(1) 770                      (2) 1100                      (3) 1825                      (4) 1925
82. Five boys were climbing a hill. J was following H, R was just ahead of G, K was the only one between G and H. They were climbing up in a column. Who was second ?  
(1) K                      (2) H                      (3) G                      (4) J
83. The place value of 6 in the numeral 186304 is :  
(1) 6                      (2) 6304                      (3) 6000                      (4) 186
84. A square garden has fourteen posts along each side at equal interval. Find how many posts are there in all four sides ?  
(1) 56                      (2) 52                      (3) 44                      (4) 60
85. A certain quantity of rice is spent daily for 30 students in a hostel. One day some students were absent, as a result the quantity of rice has been spent in the ratio of 6 : 5. How many students were present on that day ?  
(1) 24                      (2) 20                      (3) 15                      (4) 25
86. Express Rs. 25 as percentage of Rs. 75 :  
(1) 3%                      (2) 30%                      (3) 0.3%                      (4) 33.3%
87. A hawker purchased oranges at the rate of 4 oranges in a rupee, but he sells at the rate of 5 oranges in a rupee. His loss is :  
(1) 20%                      (2) 25%                      (3) 50%                      (4) 100%
88. The numbers which divide 80 in such a way that the sum of their reciprocals is  $\frac{4}{75}$  are :  
(1) 40, 40                      (2) 35, 45                      (3) 30, 50                      (4) 60, 20
89. The sum of two times one natural number and three times another natural number is less than 24. If the first natural number is less than or equal to eight, the highest value of the second natural number is :  
(1) 5                      (2) 6                      (3) 7                      (4) 8
90. There are 7 points in a plane, no three of them being collinear. The number of triangles formed by using these points are :  
(1) 7                      (2) 21                      (3) 10                      (4) 35

91. In the international place value system we write one million for :  
 (1) 1 lakh                      (2) 10 lakhs                      (3) 100 lakhs                      (4) 1 crore
92. The smallest natural number is :  
 (1) 0                      (2) 1                      (3) 2                      (4) - 1
93. How many four digit numbers are there ?  
 (1) 99                      (2) 8999                      (3) 9999                      (4) 9000
94. The value of  $8967 \times 637 + 8967 \times 363$  is :  
 (1) 363000                      (2) 8967000                      (3) 2497680                      (4) 7967000

*Study the following bar-graph and answer the questions (95-99) given below. (The diagram shows the sale of six shoe companies in three successive financial years.)*



95. Which of the following shoe companies has a fluctuating sales figure over the given period ?  
 (1) LT Brothers                      (2) DB Sons                      (3) C Company                      (4) S Company
96. What is the total percentage increase in the sale of shoes in 2005-2006 with respect to 2004-2005 ?  
 (1) 4% fall                      (2) 4% rise                      (3) No change                      (4) 7% increase

97. For the total 3-year period under consideration, the nearest competitor of R Company is :  
 (1) C Company      (2) MB Brothers      (3) S Company      (4) DB Sons
98. For the years 2003–2004 and 2004–2005, which company has the minimum rate of change of sales ?  
 (1) DB Sons      (2) LT Brothers      (3) R Company      (4) C Company
99. For the years 2004–2005 and 2005–2006, which company has the maximum rate of change of sales ?  
 (1) DB Sons      (2) R Company      (3) S Company      (4) LT Brothers
100. Rs. 640 is divided among A, B, C in the ratio 2 : 3 : 5 then B's share is :  
 (1) 128      (2) 192      (3) 320      (4) 180
101. Two numbers are in the ratio 3 : 4. On subtracting 10 from each, the ratio becomes 7 : 10. The smaller number is :  
 (1) 54      (2) 42      (3) 35      (4) 45
102. A student divided a number by  $\frac{2}{3}$  when he is required to multiply by  $\frac{3}{2}$ . Calculate the percentage of error in his result :  
 (1) 0%      (2) 2%      (3) 5%      (4) 6%
103. If  $2 : 9 :: x : 27$ , then the value of  $x$  is :  
 (1) 6      (2) 8      (3) 10      (4) 12
104. Average age of students of an adult school is 40 years. 120 new students whose average age is 32 years joined the school. As a result the average age is decreased by 4 years. Find the number of students of the school after joining of the new students :  
 (1) 1200      (2) 120      (3) 360      (4) 240
105. A prime number is the number which :  
 (1) Has exactly one factor      (2) Has exactly two factors  
 (3) Is not divisible by two      (4) Is not divisible by three



106. What least value should be given to \* so that the number 6342\*1 is divisible by 3 ?  
(1) 0                      (2) 1                      (3) 2                      (4) 3
107. The smallest number which when divided by 4, 6, 10, 15 gives the same remainder 3 ?  
(1) 57                      (2) 123                      (3) 63                      (4) 39
108.  $(-1)^{273} = ?$   
(1) -1                      (2) 1                      (3) 0                      (4) Not defined
109. The maximum number of points of intersection of three lines in a plane is :  
(1) 0                      (2) 1                      (3) 2                      (4) 3
110. If A, B, C are in proportion then :  
(1)  $A^2 = BC$                       (2)  $B^2 = AC$                       (3)  $C^2 = AB$                       (4)  $ABC = 1$
111. Sum of two numbers prime to each other is 20 and their L.C.M. is 99. What are the numbers ?  
(1) 8 and 12                      (2) 14 and 6                      (3) 19 and 1                      (4) 11 and 9
112. A wizard named Nepo says "I am only three times my son's age. My father is 40 years more than twice my age. Together the three of us are mere 1240 years old". How old is Nepo ?  
(1) 80 years                      (2) 120 years                      (3) 240 years                      (4) 360 years
113. One of the base angles of an isosceles triangle is 68. The vertical angle is :  
(1) 34                      (2) 44                      (3) 22                      (4) 51
114. A vendor bought lemons at 6 for a rupee. How many for a rupee must he sell to gain 20% ?  
(1) 4                      (2) 5                      (3) 3                      (4) 2
115. A vendor bought lemons at 6 for a rupee and sold them at 4 a rupee. His gain percentage is :  
(1) 50                      (2) 40                      (3) 33.33                      (4) None of these

116. If the diameter of a wire is increased by 10%, by how much percent approximately, will its length be decreased, if the volume remains the same ?

- (1) 15                      (2) 16                      (3) 17                      (4) 19

117. How many circles can be drawn to pass through three non collinear points ?

- (1) 1                      (2) 2                      (3) 3                      (4) As many as we please

118.  $0.2 \times 0.2 \times 0.2 = ?$

- (1) 0.8                      (2) 0.08                      (3) 0.008                      (4) None of these

119. The product of two rational numbers is  $\frac{-8}{9}$ . If one of them is  $\frac{-4}{15}$  the other one is :

- (1)  $\frac{10}{3}$                       (2)  $\frac{-10}{3}$                       (3)  $\frac{-3}{10}$                       (4)  $\frac{3}{10}$

120. Two complimentary angles differ by 6. The measure of the smaller angle is :

- (1) 48                      (2) 42                      (3) 36                      (4) 54

121. The ages of A and B are in the ratio 7 : 5. Ten years hence, the ratio of their ages will be 9 : 7. The present age of B is :

- (1) 25                      (2) 35                      (3) 45                      (4) 20

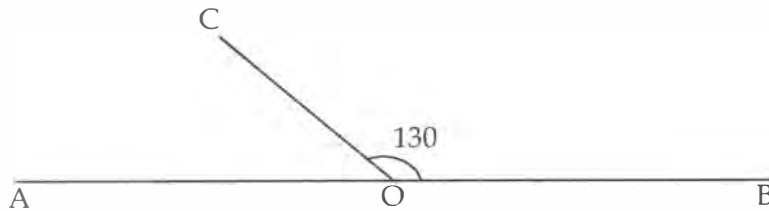
122. A sum amounts to Rs. 3584 in 219 days at 4% per annum simple interest. The sum is :

- (1) 3250                      (2) 3500                      (3) 3260                      (4) 3400

123. The supplement of an angle of 45 is :

- (1) 45                      (2) 135                      (3) 155                      (4) 75

124. In the given figure AOB is a straight line and the ray OC stands on it. If angle BOC = 130 then angle AOC = ?



- (1) 50                      (2) 70                      (3) 20                      (4) 60
125. The length of a rectangle is 12 m and the length of its diagonal is 15 m. The area of the rectangle is :
- (1) 180                      (2) 90                      (3) 108                      (4) 120
126. The third proportional to 8 and 12 is :
- (1) 16                      (2) 18                      (3) 10                      (4) 48
127. A number when added to its two-thirds gives 65. The number is :
- (1) 39                      (2) 43                      (3) 37                      (4) 26
128. After 8 years Raj will be 3 times as old as he was 2 years ago. His present age is :
- (1) 6                      (2) 7                      (3) 9                      (4) 11
129. A number consists of two digits whose sum is 7. On subtracting 9 from the number its digits are interchanged. The number is :
- (1) 34                      (2) 43                      (3) 53                      (4) 35
130. The mean proportional between 6 and 24 is :
- (1) 96                      (2) 48                      (3) 12                      (4) 8

**TEST - IV**  
**REASONING**

*Answer the Questions (131 to 134) after studying the following information :*

- (i) There are six people in a family A, B, C, D, E and F.
- (ii) C is the wife of B and mother of F.
- (iii) F is the granddaughter of E.
- (iv) D is the grandmother of A and mother of B.
- (v) There are two married couples in the family.

131. What is C to A ?

- (1) Mother                      (2) Grandmother      (3) Daughter                      (4) None of these

132. How many male members are there in the family ?

- (1) 2                              (2) 3                              (3) 4                              (4) None of these

133. Which of the following is true ?

- (1) A is the sister of F                      (2) A is the brother of F  
(3) B has two daughters                      (4) None of these

134. Who among the following is one of the couples ?

- (1) C and D                      (2) E and B                      (3) D and E                      (4) None of these

*Read the following information to answer the Questions (135-138) :*

- (i) A, B, C, D, E and F are six members in the family. There are two pairs of couples in the group.
- (ii) There are two engineers, one teacher, one sociologist and two artists. Both the engineers are of the same sex.
- (iii) A and C are the same profession.
- (iv) The teacher is married to the engineer and an artist is married to the lady sociologist.
- (v) A is an Artist. E is a male engineer. Both of them are unmarried.
- (vi) F is B's husband.

135. Who is married with the teacher ?

- (1) F                              (2) C                              (3) A                              (4) B

136. Who is sociologist by profession ?

- (1) B                              (2) F                              (3) C                              (4) D

137. Which of the following are the pair of couples ?

- (1) FD and BD      (2) CD and FB      (3) CD and FD      (4) FC and AD

138. What is the profession of B ?

- (1) Engineer      (2) Sociologist      (3) Teacher      (4) Artist

139. Sudha's rank from bottom in a class of 31 students is 11th. What is her rank from the top ?

- (1) 21st      (2) 22nd      (3) 20th      (4) 19th

140. From 1 o'clock in the morning till 12 noon, how many times will the pendulum of a clock strike ?

- (1) 78      (2) 87      (3) 68      (4) 86

*In each of the following Questions (141-145), certain relationship is expressed in three words, find out the suitable fourth word from the given options :*

141. India : New Delhi : : Pakistan : ?

- (1) Lahore      (2) Islamabad      (3) Peshawar      (4) Hyderabad

142. Tariatana : Muslin : : Poplin : ?

- (1) Jute      (2) Wool      (3) Cotton      (4) Rayon

143. Flying : Bird : : Creeping : ?

- (1) Aeroplane      (2) Snail      (3) Ground      (4) Flower

144. Culprit : Crime : : Judge : ?

- (1) Court      (2) Case      (3) Law      (4) Verdict

145. Lukewarm : Hot : : Pat : ?

- (1) Fondle      (2) Step      (3) Worship      (4) Scold

*In the following Questions (146–150), decipher the relationship using given relationship in the question :*

146. Flower is to Bud as Fruit is to :

- (1) Taste                      (2) Seed                      (3) Flower                      (4) Twig

147. Dam is to Mad as Drab is to :

- (1) Barb                      (2) Brab                      (3) Bard                      (4) Badr

148. 'Hour' is related to Second in the same way as 'Tertiary' is related to :

- (1) Ordinary                      (2) Secondary                      (3) Primary                      (4) Intermediary

149. 'Dogs' bark so also 'Goats' :

- (1) Bleat                      (2) Crow                      (3) Grunt                      (4) Howl

150. 'Cuboid' is related to square in the same way as 'Square' is related to :

- (1) Plane                      (2) Triangle                      (3) Line                      (4) Point

151. 'Horse' is related to Neigh in the same way as 'Jackal' is related to :

- (1) Bray                      (2) Howl                      (3) Chatter                      (4) Squeak

152. 'Water' is related to Ocean in the same way as 'Snow' related to :

- (1) Glacier                      (2) Ice                      (3) Hail                      (4) Mountain

153. 'Breeze' is related to Cyclone in the same way as 'Drizzle' is related to :

- (1) Decay                      (2) Flood                      (3) Heavy rain                      (4) Spray

154. What is related to 'Defamation' in the same way as 'Honour' is related to Award ?

- (1) Punishment      (2) Charge      (3) Fault      (4) Crime

155. What is related to 'Student' in the same way as 'Venus' is related to Solar System ?

- (1) Teacher      (2) Class      (3) Friend      (4) Book

156. What is related to 'River' in the same way as 'Summer' is related to Winter ?

- (1) Agriculture      (2) Tree      (3) Barren      (4) Coast

*In the following Questions (157-162), find the missing group of letter after studying the relationship given in the question :*

157. TALK : YFHG :: MIND : ?

- (1) RNJZ      (2) RMNQ      (3) QMRH      (4) QMHR

158. ACEG : DFHJ :: ? : ZXVT

- (1) WUSQ      (2) SQOM      (3) USQO      (4) YWUS

159. CDE : ZXY :: EDC : ?

- (1) ZXY      (2) ZYX      (3) XZY      (4) YXZ

160. ACEG : ZXVT :: HJLN : ?

- (1) TRPN      (2) SQOM      (3) OQSU      (4) RPNL

161. LAKE : PEOI :: MEAT : ?

- (1) PILO      (2) REXO      (3) QIEX      (4) QEIX

162. LOSE : MQVI :: GAIN : ?

- (1) HCLR      (2) GCLR      (3) HCLS      (4) HLCR

*Choose the pair of words that shows the same relationship as given at the top of every pair in Questions (163-168) :*

163. Cells : Cytology

- (1) Diseases : Physiology                      (2) Worms : Ornithology  
(3) Insects : Entomology                      (4) Tissues : Morphology

164. Goose : Gander

- (1) Duck : Drake                                      (2) Hen : Chicken  
(3) Horse : Bridle                                      (4) Donkey : Bray

165. Inherit : Acquire

- (1) Loss : Gain                                      (2) Learn : Discover  
(3) Instinct : Habit                                      (4) Hierarchical : Succession

166. Summer : Raining

- (1) Monday : Sunday                                      (2) Summer : Winter  
(3) December : January                                      (4) Licence : Driving

167. Scalp : Hair

- (1) Home : Cattle                                      (2) Nail : Nailpolish  
(3) Green : Earth                                      (4) Fur : Cap

168. Mountain : Height

- (1) River : Water                                      (2) Valley : Depth  
(3) Moon : Shadow                                      (4) Cave : Depth

169. In any year on 28th February is Tuesday. If the leap year is excluded, then the day on 28th March will be :

- (1) Sunday                      (2) Monday                      (3) Tuesday                      (4) Saturday

170. Traffic light at one particular crossing changes after every 25 seconds. The traffic light at the next crossing changes after every 30 seconds. At a certain time they change together. After what time they will again change together ?

- (1) 120 seconds                      (2) 180 seconds                      (3) 90 seconds                      (4) 150 seconds



171. In the Olympic Games, the flags of 6 nations were flown on the masts in the following way. The flag of America was found to the left of India Tricolour and to the right of the flag of France. The flag of Australia was on the right of the Indian flag but was to the left of the flag of Japan which was to the left of the flag of China. Find the two flags which are in the centre ?

- (1) America and India                      (2) Japan and Australia  
(3) America and Australia                (4) India and Australia

172. A cube is painted on all sides. It is then 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

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

- (1) 8                                      (2) 4                                      (3) 6                                      (4) 1

174. In the context of the same cube, how many of these smaller cubes would have 3 sides painted ?

- (1) 6                                      (2) 4                                      (3) 8                                      (4) 12

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. The quantity of water in a cistern doubles every minute. It gets filled in 60 minutes. In how many minutes will it be half-filled ?

- (1) 20                                      (2) 30                                      (3) 40                                      (4) 59

177. Each match-stick is of length 4 cm. Number "eight" is formed using minimum number of the match-sticks. If the same number of match-sticks are placed along a straight line close to each other, the length of the straight line is :

- (1) 36 cm                      (2) 32 cm                      (3) 28 cm                      (4) 24 cm

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

- (1) 10 years                      (2) 5 years                      (3) 15 years                      (4) 12 years

179. 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 wrong direction thinking it is west. In which direction is he actually travelling now ?

- (1) South                      (2) North                      (3) East                      (4) West

180. A is B's sister, C is B's mother, D is C's father, E is D's mother. Then how is 'A' related to D ?

- (1) Grand-father                      (2) Daughter  
(3) Grand mother                      (4) Grand Daughter

181. On a shelf are placed six volumes side by side labelled ABCDEF. BCEF have green covers while others have yellow covers. ADB are new volumes while the rest are old volumes. ACB are law reports while the rest are old medical extracts. Which two volumes are old medical extracts and have green covers ?

- (1) BC                      (2) CD                      (3) CE                      (4) EF

Study the trend in the following questions (182-190) and insert the missing number :

182.

28	60	48
5	6	7
14	39	27
7	?	16

(1) 23

(2) 24

(3) 27

(4) 18

183.

42	44	38
23	55	28
37	?	39

(1) 77

(2) 66

(3) 22

(4) 33

184. 9, 11, 20, 31, ?, 82

(1) 71

(2) 51

(3) 60

(4) 41

185. 8, 13, 23, 43, 83, ?

(1) 173

(2) 183

(3) 163

(4) 193

186. 225, 336, 447, ?, 669, 780

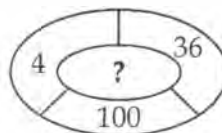
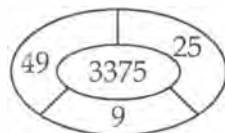
(1) 114

(2) 338

(3) 991

(4) 558

187.



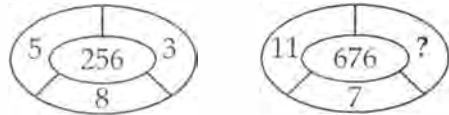
(1) 4268

(2) 2856

(3) 5832

(4) 6464

188.



- (1) 6                      (2) 4                      (3) 7                      (4) 8

189.

2 B	3 C	5 B
5 C	8 B	17 A
13 A	15 A	?

- (1) 10 C                      (2) 13 B                      (3) 16 C                      (4) 20 A

190.

AZ	DW	GT
BY	EV	?
CX	FU	IR

- (1) KT                      (2) HS                      (3) JI                      (4) AD

*Answer the Questions (191-195) based on the information given below :*

A case is cut into two equal parts along a plane parallel to one of its faces. One piece is then coloured red on the two larger faces and green on the remaining, while the other is coloured green on the two smaller adjacent faces and red on the remaining. Each is then cut into 32 cubes of the same size. The 64 resultant cases are all mixed up.

191. How many cases have no coloured face at all ?

- (1) 8                      (2) 0                      (3) 16                      (4) 12

192. How many cases have only one coloured face each ?

- (1) 0                      (2) 8                      (3) 16                      (4) 32

193. How many cases have two red and one green face each ?

- (1) 0                      (2) 4                      (3) 8                      (4) 16

194. How many cases have each one red and another green face ?

- (1) 0                      (2) 8                      (3) 16                      (4) 24

195. What is the number of cases with at least one green face each ?

- (1) 32                      (2) 36                      (3) 38                      (4) 40

*Answer the Questions (196–199) based on the information given below :*

- (i) A, B, C or W may cause D.
- (ii) B, C or W may cause E.
- (iii) W and X may cause F.
- (iv) D or E may cause G or H only if D and E are caused by B or C; D or E may cause I only if D and E are caused by C.
- (v) Only E and F together may cause M or N.
- (vi) F may cause H only if it is caused by W or X.

**196.** Which can result from the largest number of immediately preceding events ?

- (1) D                                      (2) E                                      (3) F                                      (4) M

**197.** Which can result in the smallest number of subsequent events, counting both those that follow immediately and those that follow after another event ?

- (1) A                                      (2) B                                      (3) C                                      (4) W

**198.** How many different events or combination of events may cause 'H' ?

- (1) 5                                      (2) 6                                      (3) 7                                      (4) 8

**199.** Which may be a result of the smallest number of different combinations of events ?

- (1) G                                      (2) H                                      (3) I                                      (4) M

**200.** A man walks 10 kilometres towards north. From there he walks 6 kilometres towards south. Then he walks 3 kilometres towards east. How far and in which direction is he with reference to his starting point ?

- (1) 5 km towards west                                      (2) 7 km towards east  
(3) 5 km towards north east                                      (4) 7 km towards west

- o O o -

**SPACE FOR ROUGH WORK**

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