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 - 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

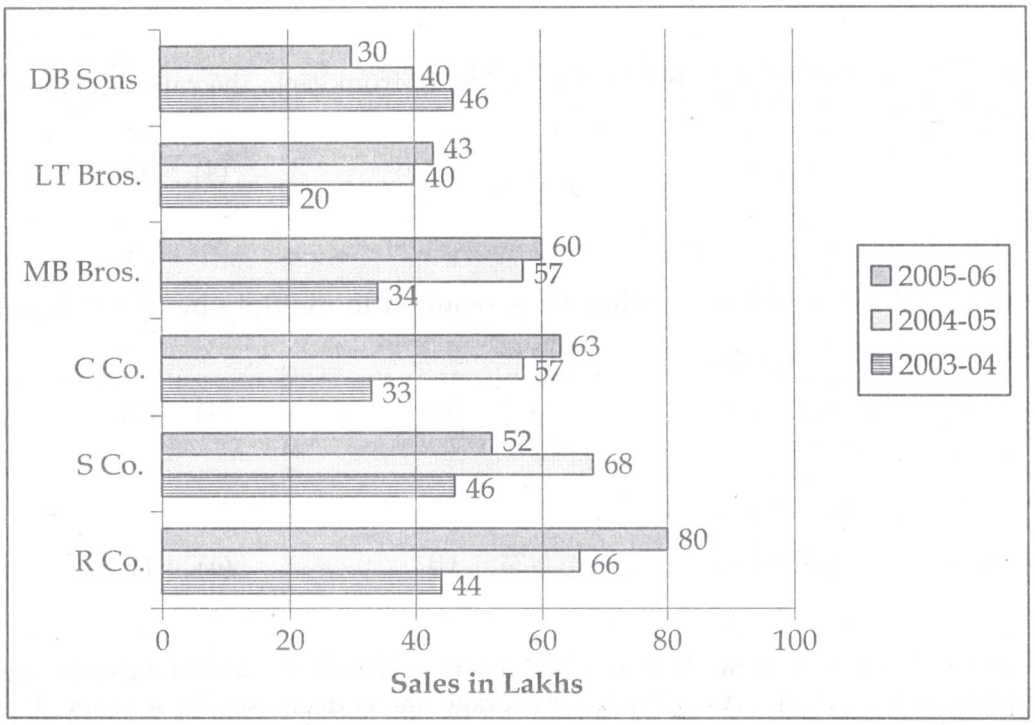
93. How many four digit numbers are there ?

(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

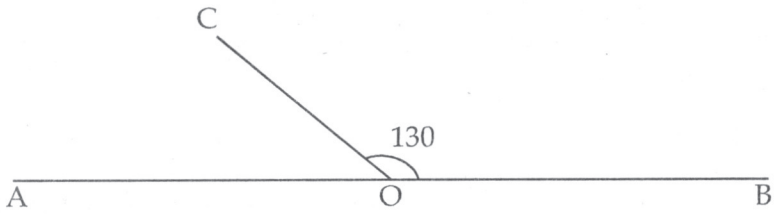
122. A sum amounts to Rs. 3584 in 219 days at 4% per annum simple interest. The sum is :

(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