

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 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 A Q F J L and 2568 is written as D M P N. How is 396824 written in that code ?
- (1) Q L P N M J (2) Q L P N M F
(3) Q L P M N F (4) Q L P N D F
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. $\frac{1}{2}, \frac{1}{4}, \frac{1}{8}, \frac{1}{16}, \underline{\quad ? \quad}$
- (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 28^{th} February is Tuesday. If the leap year is excluded, then 28^{th} 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) $42\frac{1}{2}^\circ$ (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

$3 + 2 - 5 + 3 + 2 - 5 + 3 + 2 - 5 + \dots$ 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 10th from the left and Lina who is 7th from the right, interchange their seats, Seeta becomes 15th 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