

**OPENMAT (XXV) Entrance Test for
Management Programmes 2009
FEBRUARY, 2009**

23915

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 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 '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

Based on the following statement, answer questions (131 - 135) :

There are 125 cubes of similar size arranged in the form of a bigger cube (5 cubes on each side, that is, $5 \times 5 \times 5$). From one corner of the top layer of this cube, four smaller cubes ($2 \times 2 \times 1$) are removed. From the column on the opposite side, two cubes ($1 \times 1 \times 2$) are removed. From the third corner too, three cubes ($1 \times 1 \times 3$) are removed, and from the fourth column four cubes ($1 \times 1 \times 4$) are removed. All exposed faces of the block thus formed are coloured red.

- 131.** How many small cubes are left in the block ?
(1) 112 (2) 110 (3) 109 (4) 114
- 132.** How many cubes do not have any coloured face ?
(1) 25 (2) 35 (3) 38 (4) 44
- 133.** How many cubes have only one red face each ?
(1) 42 (2) 27 (3) 41 (4) 62
- 134.** How many cubes have two coloured faces each ?
(1) 18 (2) 24 (3) 32 (4) 36
- 135.** How many cubes in the top layer have three red faces each ?
(1) 3 (2) 4 (3) 6 (4) 8
- 136.** A cube is painted green 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) 4 (2) 8 (3) 16 (4) 24

Study the following information and answer the questions (137 - 140) given below :

- (i) There are six people in a family (A, B, C, D, E, F)
- (ii) C is the wife of B and the 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.

- 137.** What is C to A ?
(1) Mother (2) Grandmother (3) Daughter (4) None of these
- 138.** How many male members are there in the family ?
(1) 2 (2) 3
(3) 4 (4) Cannot be determined

139. 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

140. 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

141. A couple has a son and a daughter. The age of the father is three times that of his daughter. The age of the son is half of his mother. The wife is nine years younger to her husband and the brother is seven years older than his sister. What is the age of the mother ?

- (1) 40 years (2) 45 years (3) 50 years (4) 60 years

142. The ratio of Asha's and her brother's age is 4 : 3. If there are still 12 months for her to complete 25 years, how old is her brother ?

- (1) 14 (2) 15 (3) 16 (4) 18

143. The sum of the squares of two consecutive even numbers is 1252. The sum of the numbers is :

- (1) 48 (2) 50 (3) 52 (4) 54

144. Introducing Rajesh, Neha said, His brother's father is the only son of my grandfather. How is Neha related to Rajesh ?

- (1) Sister (2) Daughter (3) Mother (4) Niece

145. 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

146. 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

147. In the following number series, how many 8s are immediately preceded by a number which does not divide it but followed by a number which divides it ?

2 8 2 8 3 8 5 8 8 5 3 2 8 2 3 8 4 7 1 5 8 3 8

- (1) 1 (2) 2 (3) 3 (4) 4

Study the following information for answering the questions (148 - 150) :

- (a) Six books are kept one on top of the other.
- (b) The History book is just above Accounting. The Maths book is between Punjabi and Urdu.
- (c) English is between History and Punjabi.

148. Which book is between Maths and English books ?

- (1) History (2) Accounting (3) Urdu (4) Punjabi

149. Which book is at the bottom ?

- (1) Punjabi (2) Accounting (3) Urdu (4) English

150. Which book is at the top ?

- (1) Urdu (2) Punjabi (3) Accounting (4) History

Read the following information and answer the questions numbered (151 - 155) :

An ironsmith has five iron articles P, Q, R, S and T.

- (i) P weighs double that of Q.
- (ii) Q weighs four and half times of R.
- (iii) R weighs half that of T.
- (iv) T weighs less than P but more than R ; S is heavier than R.

151. Which one is lightest of them all ?

- (1) P (2) Q (3) R (4) S

152. T is lighter than which pair of objects ?

- (1) P, Q (2) S, R (3) P, R (4) S, Q

153. T is heavier than which other pair of objects ?

- (1) S, Q (2) S, R (3) P, R (4) P, Q

154. Which one of the following is heaviest ?

- (1) P (2) Q (3) R (4) S

155. What is the descending order of their weights ?

- (1) PQTSR (2) QSTPR (3) RPSQT (4) PQSTR

In each of the following questions (166 - 170) some relationship is expressed among two groups of letter. Find out an appropriate replacement for the question mark (?) position from the given alternatives.

166. TALK : YFHG :: MIND : ?

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

167. HHUV : HJQP :: LLQQ : ?

- (1) LKOP (2) LKJI (3) LMNO (4) LNMK

168. FILM : ADGH :: MILK : ?

- (1) ADGF (2) HDGE (3) HDGF (4) HEGF

169. ACEG : ZXVT :: HJLN : ?

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

170. FIT : HKV :: JOB : ?

- (1) OSH (2) QRN (3) LQD (4) LCD

Find the odd man out in questions 171 - 173 :

171. (1) Diamond (2) Gold
(3) Silver (4) Copper

172. (1) Calf (2) Cub
(3) Pup (4) Cat

173. (1) Walk (2) Jump
(3) Run (4) Sleep

In questions (174 - 176), find which one pair is different from the rest three :

174. (1) 8, 20 (2) 18, 45 (3) 16, 40 (4) 14, 28

175. (1) 32, 13 (2) 46, 20 (3) 51, 24 (4) 72, 45

176. (1) 25, 17 (2) 58, 50 (3) 49, 42 (4) 83, 75

177. Which one is like Grafting, Budding and Layering ?

- (1) Egg (2) Seed (3) Weeding (4) Digging

178. Which one is unlike Cone, Prism and Cube ?

- (1) Cylinder (2) Cuboid
(3) Sphere (4) Rectangle

In question no. (179 - 180), which one pair of related words is different from the other three :

179. (1) Society - Member (2) Office - Employee
(3) Government - People (4) Team - Players
180. (1) Permission - Prevention (2) Transparent - Opaque
(3) Convergent - Divergent (4) Plenty - Executive

In the following questions (181 - 185), a number series is given. One term is wrong in that series. Find out that wrong from the given alternatives.

181. 3, 6, 5, 20, 7, 42, 9, 74.

- (1) 3 (2) 42 (3) 74 (4) 20

182. 29, 34, 32, 37, 35, 41.

- (1) 39 (2) 36 (3) 34 (4) 41

183. 6, 18, 36, 108, 216, 648, 1290, 3888.

- (1) 36 (2) 108 (3) 1290 (4) 648

184. 0, 3, 8, 15, 27, 35, 48.

- (1) 15 (2) 27 (3) 35 (4) 48

185. 529, 361, 289, 171, 121, 49.

- (1) 361 (2) 289 (3) 171 (4) 121

186. Rajesh walked 25 metres towards south. Then he turned to his left and walked 20 metres. He then turned to his left and walked 25 metres. He then turned to his right and walked 15 metres. At what distance is he from the starting point and in which direction ?

- (1) 60 metres East (2) 35 metres East
(3) 40 metres East (4) 35 metres North

187. Sonu starts from his house which faces south and after 100 metres of walking straight turns left. Again he walks 100 metres and turns right. Again he walks 55 metres and turns right. Which direction is Sonu facing now ?

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

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

- (1) 30 kms (2) 50 kms (3) 60 kms (4) 130 kms

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

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

190. Lata moves towards south-east a distance of 7 m, then she moves towards west and travelled a distance of 14 m. From here she moves towards north-west a distance of 7 m and finally she moves a distance of 4 m towards east and stood at that point. How far is the starting point from where she stood ?

- (1) 3 m (2) 4 m (3) 10 m (4) 9 m

In question no. (191 - 195) complete the matrix by choosing the correct alternative for the place of question mark (?).

191.

1	4	9	?
1	2	3	4
2	4	6	?

- (1) 16 and 8 (2) 25 and 5 (3) 36 and 4 (4) 49 and 7

192.

7	9	21	27
4	2	36	18
9	4	54	?

- (1) 18 (2) 24 (3) 36 (4) 58

193.

H	K	Q
C	G	O
E	J	?

- (1) L (2) N (3) P (4) T

194.

K ₇	L ₄	M ₁₀
L ₈	M ₅	L ₁₂
M ₉	L ₆	?

- (1) L₁₄ (2) K₂₄ (3) K₁₄ (4) M₁₄

195.

3 C	2 B	4 A
27 A	?	64 B
9 C	4 A	16 B

- (1) 8 C (2) 12 C (3) 16 C (4) 18 C

196. After a get together every person present, shakes the hand of every other person. If there were 105 hands shakes in all, how many persons were present in the party ?

- (1) 13 (2) 14 (3) 15 (4) 16

197. A is taller than B and C is taller than D. If D is taller than B, then who is the shortest among them ?

- (1) A (2) B
(3) C (4) Cannot be found out

198. Bablu ranked 16th from the top and 29th from the bottom among those who passed an examination. Six boys did not participate in the competition and five failed in the examination. How many boys were there in the class ?

- (1) 44 (2) 50 (3) 55 (4) 40

199. A, B, C and D play a game of cards. A says to B, 'If I give you 8 cards, you will have as many as C has and I shall have 3 less than what C has. Also if I take 6 cards from C, I shall have twice as many as D has. If B and D together have 50 cards, how many cards has A got ?

- (1) 23 (2) 27 (3) 37 (4) 40

200. Which is the following groups of letters will replace the question mark (?) in the following series ?

p r t, ?, b d f, h j l, n p r

- (1) v y a (2) u w z (3) v x z (4) u x w

- o O o -

SPACE FOR ROUGH WORK