

Jagan Institute of Management Studies
End-Term Examination, September, 2016
Trimester IV – PGDM (IB) 2015-17

Managerial Skills & Corporate Grooming
ET_IB_MSCG_2709

Time: 3 Hrs.

M. Marks: 100

INSTRUCTIONS: Attempt both the SECTIONS and all questions are compulsory.
Tick [✓] against the right answer

SECTION I

1. If we divide 242 by a certain number, the remainder obtained is 8. If we divide 698 by the same number, the remainder obtained is 9. However, if we divide the sum of 242 and 698 by the same number, the remainder obtained is 4. Find the divisor.
A] 11 B] 17 C] 13 D] 23
2. How many kilograms of Basmati rice costing Rs.42/kg should a shopkeeper mix with 25 kg of ordinary rice costing Rs.24/kg so as to make a profit of 25% by selling the mixture at Rs.40/kg?
A] 30 B] 35 C] 20 D] 15
3. A milkman mixes 20 litres of water with 80 litres of milk. After selling one-fourth of this mixture, he adds water to replenish the quantity that he had sold. What is the current proportion of water to milk?
A] 3 : 2 B] 2 : 3 C] 3 : 5 D] 5 : 3
4. There are 45 students in a class whose average weight is 30 kg. 3 more students, with weights 32, 34 and 36 kg respectively join the class. What is the new average weight of the class?
A] 30 kg B] 33 kg C] 30.125 kg D] 30.25 kg
5. LCM and HCF of two fractions are $\frac{18}{5}$ and $\frac{3}{385}$. If one of the fractions is $\frac{6}{35}$, find the other fraction.
A] $\frac{9}{45}$ B] $\frac{9}{55}$ C] $\frac{6}{55}$ D] $\frac{6}{65}$

6. In a village, 18% of the populations are children and 10% of children are female. If the number of female children is 90, what is the population?
A] 500 B] 5,000 C] 600 D] 6,000
7. If two numbers are respectively 19% and 70% more than a third number, what percentage is the first of the second?
A] 70% B] 30% C] 143% D] 43%
8. The price of a pair of shoes is reduced by 20% during a sale. If the new selling price for the pair of shoes is Rs.600, what was the original price of a pair of shoes?
A] Rs.720 B] Rs.650 C] Rs.750
D] Rs.450
9. By selling toffees @ 15 for a rupee, a man lost 20%. In order to gain 20%, how many toffees for a rupee should he sell?
A] 10 B] 12 C] 8 D] 18
10. If boys make up 65% of a class that has 28 girls, the number of boys exceeds the number of girls by
A] 52 B] 80 C] 24 D] 16
11. If price of car increases by 25% whereas revenue increases by 10%, what is the percent change in number of cars sold?
A] 15% increase B] 15% decrease C] 12% decrease D] 12% increase
12. By selling an article at 5% gain, amount of profit is Rs.25. There is a loss of 12% by selling it at
A] Rs.460 B] Rs.150 C] Rs.440 D] Rs.500
13. A trader makes a profit of 20%. If cost price increases by 40% and therefore, he increases the selling price by 40%, what would be the new profit%?
A] 20% B] 60% C] 10% D] 40%
14. An article is marked for sale at Rs.180 at which the shopkeeper gives a discount of 20% if the payment is made by cash, in which case his net profit is 20%. What did the shopkeeper pay for the articles?
A] 144 B] 120 C] 136 D] 100
15. SP of 9 articles is same as CP of 12 articles. Find the profit / loss %.
A] 25% B] 20% C] 30% D] 33.33%

16. The average weight of a group of 7 boys and 5 girls is 32 kg. If the average weight of the boys is 40 kg, find the average weight of the girls.
A] 20.8 kg B] 22 kg C] 21.8 kg D] 19 kg
17. Sangeeta got 40% of maximum marks in an examination which is 20 marks more than the passing marks. Vineeta got 60% of maximum marks which is 36 more than the passing marks. Find the passing marks in the examination.
A] 20 B] 12 C] 33 D] 80
18. What is the minimum number of cubical boxes with which one can completely fill a store-room of dimensions 20 m × 16 m × 12 m?
A] 60 B] 27 C] 20 D] Indeterminate
19. If I lose 15% of my stock of goods due to bad weather, what profit percentage should I earn on the remaining stock to earn an overall profit of 10%?
A] 29.4% B] 27.7% C] 25% D] 22.6%
20. The marked price of a book is Rs.250. A retailer is given 30% discount. If he sells the book at Rs.220, find his profit percent.
A] 19% B] 22.5% C] 25.7% D] No profit
21. The ratio of alcohol and water in three different mixtures are 3 : 1, 2 : 5 and 5 : 4. A mixture is made comprising equal quantities of all the three. Find the ratio of water and alcohol in the new mixture.
A] 1.16 B] 1.13 C] 0.89 D] 0.68
22. What is the strength of an alcohol solution A, 150 ml of which when mixed with 75ml of solution B yields a solution C with an average strength of 24%? It is known that solution B has 50% alcohol.
A] 11% B] 5.5% C] 1.1% D] 0.1%
23. A man buys 12 hens and 12 dozen eggs at Rs.260. If he sells hens at the rate of Rs.15 per hen and eggs at the rate of Rs.10 per dozen, find his loss or gain percent.
A] 12.6% loss B] 12.6% profit C] 15.4% profit D] 15.4% loss
24. In what proportion must a grocer mix flour at Rs.10 per kg and Rs.14 per kg so as to make a mixture worth Rs.13 per kg?
A] 1 : 3 B] 3 : 1 C] 2 : 3 D] 3 : 2
25. Find the LCM of $\frac{12}{5}$, $\frac{24}{15}$ and $\frac{48}{18}$.

- A] 48 B] $\frac{48}{5}$ C] 24 D] 12
26. Each of the two different numbers given leaves a remainder of 2 when divided by the same divisor. But when their sum is divided by same divisor, it leaves no remainder. What is the divisor?
A] 3 B] 2 C] 4 D] 5
27. Telegraph poles occur at equal distances of 220 m along a road and heaps of stones are put at equal distances of 300 m along the same road. The first heap is at the foot of the first pole. How far from it along the road is the next heap which lies at the foot of a pole?
A] 3.3 km B] 330 m C] 33000 m D] 33 km
28. 40% of the 200 students in school A are girls and 70% of the 300 students in school B are boys. What% of the total students is the total number of girls in both the schools?
A] 25% B] 30% C] 34% D] 42%
29. In an election between two candidates A and B, A got 55% of the total valid votes, 20% of the votes were declared invalid. If the total votes were 7500, find the number of valid votes polled in favor of the candidate B.
A] 3300 B] 6000 C] 2700 D] 2400
30. When 60% of a number is subtracted from another number, the second number reduces by 48%. What is the difference between the first and the second number?
A] 16 B] 19 C] 23 D] cannot be determined
31. If the profit in a transaction is 18% and equals Rs.90, find the selling price.
A] Rs.500 B] Rs.590 C] Rs.600 D] Rs.490
32. A shopkeeper purchases 15 dozen bananas at the rate of Rs.2 per banana. 15 bananas were destroyed during transportation. Even then, he goes onto make a profit of 15% on selling the entire lot. Find his (approximate) selling price per banana.
A] Rs.2 B] Rs.2.25 C] Rs.2.50 D] Rs.2.75
33. The selling price of 15 items equals the cost price of 18 items. Find the loss or gain percent for the trader.
A] loss, 20% B] loss, 25% C] gain, 30% D] gain, 20%

34. A strain of bacteria reproduces at the rate of 25% every 12 min. In how much time will it triple itself?
A] 96 min B] 60 min C] 48 min D] 40 min
35. The difference between compound interest and simple interest for 3 years at 5% per annum can be found out by multiplying the principal by
A] 1.7625 B] 0.7625 C] 0.07625 D] 0.007625
36. Effective annual rate of interest corresponding to a nominal rate of 6% per annum payable half-yearly is
A] 6.06% B] 6.07% C] 6.08% D] 6.09%
37. Elizabeth drove the first half of a trip at 36 mph. At what speed should she cover the remaining half in order to average 45 mph for the whole trip?
A] 39 mph B] 64 mph C] 54 mph D] 60 mph
38. How many kg of brand A coffee must be mixed with 126 kg of brand B coffee such that the cost of the mixture is Rs.24 per kg? Per kg prices of A and B are Rs.36.60 and Rs.17.10 respectively.
A] 42 kg B] 23 kg C] 69 kg D] 63.5 kg
39. Two vessels contain a mixture of diesel and kerosene. In the first vessel, the ratio of diesel to kerosene is 8 : 3 and in the second vessel the ratio is 5 : 1. A 35 litre drum is filled from these vessels so as to contain a mixture of diesel and kerosene in the ratio 4 : 1. How many litres are taken from the second vessel?
A] 11 litres B] 35 litres C] 24 litres D] 17.5 litres
40. From 40 liters of 2 : 3 milk-water solution, 5 liters are withdrawn and replaced by 5 liters of water. Now, 8 liters are withdrawn and replaced by 8 liters of water. Finally, 10 liters are withdrawn and replaced by 10 liters of water. What is the ratio of water to milk in the solution now?
A] 21 : 79 B] 79 : 21 C] 4 : 9 D] 1 : 4

SECTION II

Directions for questions 1 and 2: Insert the missing number in the following series.

1. 2, 12, 34, 74, 138, ____
A] 232 B] 212 C] 202 D] 192

2. 13, 25, 51, 101, 203, ____

A] 411 B] 407 C] 406 D] 405

Directions for questions 3 and 4: In each of the following questions, one term in the number series is wrong. Find out the wrong term.

3. 46080, 3840, 384, 48, 24, 2, 1

A] 384 B] 48 C] 24 D] 2

4. 380, 188, 92, 48, 20, 8, 2

A] 188 B] 92 C] 48 D] 20

Directions for question 5: In each of the following number series, two terms have been put within brackets. Mark your answer as

- A] If both the bracketed terms are right;
 B] If the first bracketed term is right and second is wrong;
 C] If the first bracketed term is wrong and second is right;
 D] If both the bracketed terms are wrong.

5. 4, 7, (9), 10, 13, 15, (16), 19, 21, 22

Directions for question 6: In the following question, various terms of a letter series are given with one term missing as shown by (?). Choose the missing term out of the given alternatives.

6. 3F, 6G, 11I, 18L, ?

A] 21O B] 25N C] 27P D] 27O

7. If in a certain language, REASONING is coded as GNINOSAER, how is LOGIC coded in that Code?

A] CILOG B] CIGOL C] COLIG D] CILGO

8. If 'FAIR' coded as 36181324, then 'BRAIN' is coded as

A] 4324181196 B] 4324164196 C] 4289181196 D] 4324181169

9. In a certain code language, 'si po re' means 'book is thick', 'ti na re' means 'bag is heavy', 'ka si' means 'interesting book' and 'de ti' means 'that bag'. What would mean 'that is interesting'?

A] de re ka B] de re si C] de po ti D] re ti ka

Directions for questions 10 and 11: Refer to the data below and answer the questions that follow.

In a certain code language BOMSAD is used instead of BODMAS, where
 B = Bracket; O = Of; D = Division; M = Multiplication; A = Addition; S =
 Subtraction

(All symbols have their usual meanings)

10. Find the value of $30 \times 12 + 54 - 42 \times 2$.
 A] 360 B] 330 C] 300 D] 370

11. Find the value of $3 + 2 \square 2 - 6 \square \square 3 - 2$.
 A] 3 B] 2 C] 1 D] 0

Directions for questions 12 and 13: Refer to the data below and answer the questions that follow.

Following numbers are to be coded as symbol codes by following the rule given below:-

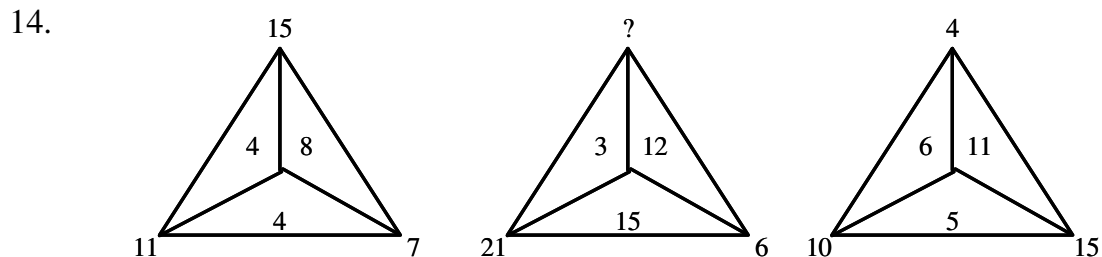
Number code:	1	2	3	4	5	6	7	8	9
0									
Symbol code :	*	#	\$	%	&	@	X	;	!
+									

- (i) If a number starts with a number divisible by 2, then that number should be coded as '<'.
- (ii) If a number ends with a number divisible by 3, then that number should be coded as '>'.
- (iii) Numbers 5 and 7 should always be coded as '=' whenever they are either at the beginning or at the end.

12. The code for 80749 is
 A] ;+X%! B] <+X%! C] >+X%< D] <+X%>

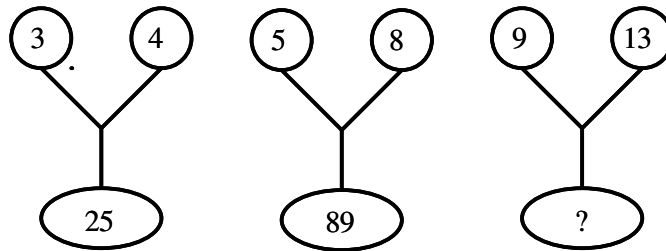
13. The code for 351462 is
 A] \$&*%#@# B] >&*%@< C] >&*%@# D] \$=*%@#

Directions for questions 14 to 16: In each of the following questions, a set of figures carrying certain characters is given. Assuming that the characters given in each set follow a similar pattern, find the missing character in each case.



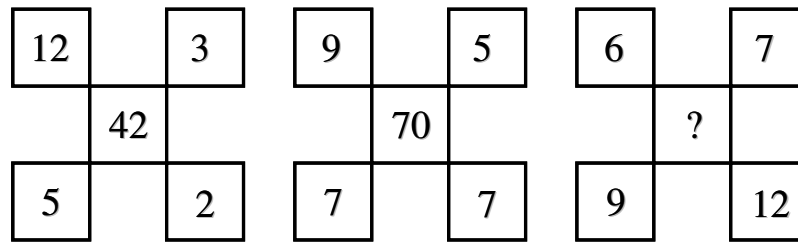
- A] 10 B] 12 C] 15 D] 18

15.



- A] 144 B] 169 C] 210 D] 250

16.



- A] 91 B] 98 C] -57 D] -252

Directions for question 17 to 19: Read the following information and answer the questions that follow:

- (i) There is a group of six persons A, B, C, D, E and F from a family. They are Psychologist, Manager, Lawyer, Jeweler, Doctor and Engineer.
- (ii) The Doctor is the grandfather of F who is a Psychologist.
- (iii) The Manager D is married to A.
- (iv) C, the Jeweller is married to the Lawyer.
- (v) B is the mother of F and E.
- (vi) There are two married couples in the family.

17. What is the profession of E?
 A] Doctor B] Uncle C] Manager D] Engineer
18. How is A related to E?
 A] Brother B] Uncle C] Father D] Grandfather
19. How many male members are there in the family?
 A] One B] Three C] Four D] Cannot be determined.

20. Six friends A, B, C, D, E and F are sitting in a closed circle facing the centre. A is facing D, C is between A and B. F is between E and A. Who is to the immediate left of B?
 A] A B] C C] D D] C or D
21. Which is the third number to the left of the number which is exactly in the middle of the following of the sequence of numbers?
 1 2 3 4 5 6 7 8 9 2 4 6 8 9 7 5 3 1 9 8 7 6 5 4 3 2 1
 A] 3 B] 4 C] 5 D] 6
22. Count each 7 which is not immediately preceded by 5 but is immediately followed by either 2 or 3. How many such 7's are there?
 5 7 2 6 5 7 3 8 3 7 3 2 5 7 2 7 3 4 8 2 6 7 8
 A] 2 B] 3 C] 4 D] 5

Direction for questions 23 to 25: Read the given information carefully and answer the questions that follow:

Six lectures on six different subjects- Physics, Chemistry, Biology, Algebra, Geometry and Astronomy - have to be scheduled (one on each day) across 7 days starting Sunday and ending Saturday. The schedule has to be drawn out for the subject such that:

- i. One day has to be a holiday and it can be neither Sunday nor Saturday.
- ii. Geometry has to be scheduled immediately after Algebra.
- iii. Physics cannot start the series in the week and to be done exactly two days before Astronomy.
- iv. Biology has to be taught on Thursday and cannot immediately follow Physics.

23. What subject will start the series of lectures?
 A] Algebra B] Chemistry C] Physics D] None of these
24. Which of the days is a holiday?
 A] Monday B] Tuesday C] Wednesday D] None of these
25. On which day is the lecture in physics scheduled?
 A] Monday B] Tuesday C] Wednesday D] None of these
26. Sita ranked seventeenth from the top and thirty first from the bottom among those who passed a examination. Seven girls did not participate in the competition and eleven failed in it. How many girls were there in the class?
 A] 40 B] 44 C] 50 D] 64

Directions for questions 27 and 28:

A family consists of 5 members: A, B, C, D and E. E has two sons, an unmarried daughter and a daughter-in-law. A is the brother-in-law of above-mentioned daughter-in-law. B's sister is not happy with B's wife. But A and his father support B's wife D.

27. Who is the daughter of E?
 A] A B] B C] C D] D
28. What is the relation of A with D?
 A] Brother B] Brother-in-law C] Sister in law D] Sister

Directions for questions 29 to 31: Read the following information carefully and answer the questions that follow.

There are nine judges G, H, I, K, L, M, N and O, who have to be grouped in three groups of three, judges each. The groups must be arranged according to the following conditions:

- I. I and N must be in the same group.
 II. K and L must be in the same group.
 III. O and J cannot be in the same group.
 IV. Either J or M must be with H.

29. Which of the following judges can be in the same group together?
 A] GLO B] GJM C] KIM D] NIJ
30. Who can be in the same group as N?
 A] IL B] IH C] IM D] IK
31. The group could consist of all the following except
 A] KLO B] KIJ C] GHJ D] GIN
32. Pointing to a man on the stage, Sarika said, "He is the brother of the daughter of the wife of my husband." How is the man on the stage related to Sarika?
 A] Son B] Husband C] Cousin D] Nephew
33. Showing the man receiving the prize, Shweta said, "He is the brother of my uncle's daughter." Who is the man to Shweta?
 A] Son B] Cousin C] Brother D] Uncle

Directions for questions 34 to 37: Read the following information carefully and answer the questions given below.

Six persons P, Q, R, S, T and U are sitting in two rows, three in each. T is not at the end of any row. U is second

to the right of S. R, the neighbor of T, is sitting diagonally opposite to S. Q is the neighbor of U.

34. Which of the following are sitting diagonally opposite to each other?
 A] U and R B] S and P C] P and R D] P and U
35. Who is facing Q?
 A] P B] R C] S D] T
36. Which of the following are in the same row?
 A] P and T B] T and S C] R and Q D] P and Q
37. Which of the following are in one of the two rows?
 A] UQR B] RTQ C] SQU D] PTU
38. Find the next term in the sequence: 3, 12, 27, 48, 75, 108, (...)
 A] 147 B] 162 C] 183 D] 192
39. LM: 156:: TJ : ?
 A] 240 B] 200 C] 250 D] 210
40. EF: 15:: HI : ?
 A] 17 B] 20 C] 36 D] 46

Directions for questions 41 and 42: Read the following information carefully and answer the questions that follow.

A team of four is to be chosen from a Doctor, an Engineer, a Teacher, a Poet, a Plumber, an Electrician, a Mason and a Carpenter subject to the following conditions:

- (i) The team should have either doctor or electrician but not both.
- (ii) Mason and Carpenter cannot be together since they hate each other.
- (iii) Teacher and Mason must be selected together and also carpenter and plumber.
- (iv) Engineer and poet cannot be selected together.

41. If the Mason is in the team who cannot be in the team?
 A] Engineer B] Teacher C] Doctor D] Plumber
42. If the Engineer and the Mason are selected, then in how many ways can the team be formed?
 A] 1 B] 2 C] 3 D] 0

Directions questions for 43 to 45:

Study the following information carefully and answer the question given below it.

- (i) Aaja is available at home from 1 p.m. to 4 p.m. on Tuesday, Thursday and Sunday.
- (ii) His younger brother Baaja is available at home on Monday, Thursday, Friday and Saturday between 10 a.m. to 2 p.m.
- (iii) The eldest brother Gaaja is available between 9 a.m. to 1 p.m. on Monday, Wednesday and Thursday and 2 p.m. on Friday, Saturday and Sunday.

43. At which day of the week all the three brothers are available at home?
A] None B] Sunday C] Thursday D] Friday
44. For how many days only one brother is available at any point of time in a week?
A] One B] Two C] Three D] Four
45. On which day(s) of a week, the youngest and the eldest brothers are available at home at the same time?
A] Only Monday B] Only Thursday
C] Only Friday D] Both Monday and Thursday
46. In the series 57, 63, 69, what will be the 20th term?
A] 177 B] 171 C] 173 D] 176
47. Find the wrong number in the series: 7, 26, 61, 121, 211, 337, 505
A] 26 B] 505 C] 121 D] 211
48. What will be the next term in: BDF, CFI, EIM,?
A] HMQ B] HLR C] HMR D] GMR
49. In a certain code, '721' means 'good school world', '526' means 'you are good' and '257', means 'world are good', which digit stands for 'you' in the code?
A] 6 B] 5 C] 7 D] cannot be determined

Directions for questions 50 to 53: Read the following information and answer the questions that follow.

Four young men A, B, C and D are friendly with four girls P, Q, R and S. P and R are friends. B's girl friend is friendly with P. P does not like A. C's girlfriend does not like P and R, and Q does not care for C.

50. Who is A's girl friend?
A] P B] Q C] R D] S
51. With whom is P friendly?
A] A B] B C] C D] D

52. Who is S's boyfriend?
A] D B] C C] B D] A
53. Who does not like P and R?
A] S B] A C] D D] C
54. In a cricket season, India defeated Australia twice, New Zealand defeated India twice. Australia defeated New Zealand twice. India defeated West Indies twice and West Indies defeated New Zealand twice. Which country has lost most number of times?
A] India B] Australia C] New Zealand D] West Indies

Directions for questions 55 to 59: Read the following information and answers the question given below it.

There are five Friends – Aku, Baku, Chaku, Daku and Haku. Haku is the tallest. Baku is a little shorter than Chaku and little taller than Daku who is not the shortest person.

55. Who is the shortest?
A] Haku B] Baku C] Daku D] Aku
56. If they stand in the order of their heights, who will be in the middle?
A] Aku B] Baku C] Chaku D] Daku
57. If they stand in the order of increasing heights, who will be the second?
A] Aku B] Baku C] Chaku D] Daku
58. Who is the second tallest?
A] Aku B] Baku C] Chaku D] Daku
59. Who is taller than Baku but shorter than Haku?
A] Aku B] Chaku C] Daku D] Cannot be determined
60. In a family, one old couple has two married sons; one son has a son and the other one a daughter. There are four men, P, Q, R and S and four women, W, X, Y and Z. On the basis of the statements given below, find out which two in the family are cousins:
Q is Z's son and W is S's sister-in-law.
P is Y's father-in-law.
R is W's son.
X is Z's grand-daughter.
A] R and Y B] S and X C] R and X D] P and Z
