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**Roll No. ....**

**XMC-201/MSD-205(B)**

**M. C. A./M. SC. (DATA SCIENCE &  
STATISTICS) (SECOND SEMESTER)**

**END SEMESTER**

**EXAMINATION, June, 2023**

**PROFESSIONAL COMMUNICATION AND  
CAREER SKILLS—II**

**Time : 3 Hours**

**Maximum Marks : 100**

**Instructions for students :**

- (i) This paper consists of 100 questions.
- (ii) All questions are compulsory.
- (iii) Each question carries equal marks.
- (iv) Calculator is not allowed.
- (v) There is no negative marking.
- (vi) It is compulsory to mention the SET in the OMR sheet.

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**Directions (Q. Nos. 1-5) :** In the following questions a set of sentences are given which when properly sequenced form a coherent paragraph. Choose the most logical order of sentences from among the four given choices to construct the paragraph.

1. 1. A famous Japanese rock garden is at Ryoan-Ji in North-west Kyoto, Japan.
2. 2. The rocks of various sizes are arranged on small white pebbles in five groups, each comprising five, two, three, two and three rocks.
3. 3. The garden is 30 metres long from East to West and 10 metres from North to South.
4. 4. The garden contains 15 rocks arranged on the surface of white pebbles in such a manner that visitors can see only 14 of them at once from whichever angle the garden is viewed.

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5. 5. There are no trees, just 15 irregularly shaped rocks of varying sizes, some arranged by gravel/sand that is raked every day.

**Codes :**

- (a) 13524
  - (b) 31542
  - (c) 45123
  - (d) 21453
2. 1. The post-election crisis in Kenya remains unresolved.
  2. 2. The damage being done to the country's economy is severe : tourism, horticulture, and other industries that depend on trade beyond the Kenyan border are reeling.
  3. 3. Many countries responded, providing essential humanitarian assistance and logistical support. For this, I and many other Kenyans are very grateful.
  4. 4. Thousands of livelihoods, along with investments throughout the region, are threatened and collapsing.

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5. As the situation in Kenya escalated with murders, rapes, burning of property, looting, and the displacement of thousands of people throughout the country—the international community was urged to help.

**Codes :**

- (a) 15423
  - (b) 12354
  - (c) 13452
  - (d) 12453
3. 1. Last March, I was invited to present a paper on the topic of whether the mistakes of the 20th century would be repeated in the 21st century as well.
2. The economic crisis hadn't become grave then.
3. But today the world is in the midst of the biggest economic crisis since 1929.

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4. The key difference between then and now is that the old power structures have finally disappeared.
5. Now even the US is pleading for financial help from China.

**Codes :**

- (a) 23145
  - (b) 12345
  - (c) 34512
  - (d) 45123
4. 1. Thus, despite India's huge population, we have not done well in Olympic Games.
2. During the British period also, cricket remained popular in India.
3. Cricket has been an extremely popular game in India for quite some time now.
4. It is time our government and corporate fraternity pay due attention to other games/sports and we redeem our national pride in Olympic Games.

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5. However, due to this reason, other games/sports did not receive the required attention they deserve.

**Codes :**

- (a) 51342
  - (b) 24135
  - (c) 32514
  - (d) 43512
5. 1. When they gathered together, the Buddha was completely silent and some speculated that perhaps the Buddha was tired or ill.
2. It is said that Gautam Buddha gathered his disciples one day for a Dharma talk.
3. One of the Buddha's disciples, Mahakasyapa, silently gazed at the flower and broke into a broad smile.
4. The origin of Zen Buddhism is ascribed to the Flower Sermon, the earliest source which comes from the 14th century.

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5. The Buddha silently held up and twirled a flower and twinkled his eyes, several of his disciples tried to interpret what this meant though none of them was correct.

**Codes :**

- (a) 52413
- (b) 42153
- (c) 23451
- (d) 31425

**Directions (Q. Nos. 6-10) :** Identify the sentence that has the correct pronoun antecedent agreement. The letter assigned to that sentence is your answer.

6. (a) When Rosie or her children arrive, show them her rooms.
- (b) When Rosie or her children arrive, show them their rooms.
- (c) When Rosie or her children arrive, show them its rooms.
- (d) When Rosie or her children arrive, show them his and her rooms.

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7. (a) Either Rahul or Rajat always walks their dog at City Park.
- (b) Either Rahul or. Rajat always walks him dog at City Park.
- (c) Either Rahul or Rajat always walks his dog at City Park.
- (d) Either Rahul or Rajat always walks them dog at City Park.
8. (a) Robin dries her hair in the sun, even though he could use a hair dryer.
- (b) Robin dries her hair in the sun, even though she could use a hair dryer.
- (c) Robin dries her hair in the sun, even though they could use a hair dryer.
- (d) Robin dries her hair in the sun, even though their could use a hair dryer.
9. (a) Someone has volunteered their time to repair the fence.

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- (b) Someone has volunteered our time to repair the fence.
- (c) Someone has volunteered ours time to repair the fence.
- (d) Someone has volunteered his or her time to repair the fence.
10. (a) The audience keeps telling themselves that the scary movie is only a story.
- (b) The audience keeps telling ourselves that the scary movie is only a story.
- (c) The audience keeps telling himself or herself that the scary movie is only a story.
- (d) The audience keeps telling itself that the scary movie is only a story.

**Directions (Q. Nos. 11-15) :** Identify the sentence out of the given four sentences in each question that follows the rules of parallel construction in language. The letter assigned to that sentence is your answer.

11. (a) Tomorrow, I want to watch a movie and enjoying my evening with the family.
- (b) Tomorrow, I want to watch a movie and enjoy my evening with the family.

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- (c) Tomorrow, I want to watch a movie and be enjoying my evening with the family.
  - (d) Tomorrow, I want to watch a movie and have enjoying my evening with the family.
12. (a) His coworkers praised both his determination and the way he paid attention to details.
- (b) His coworkers praised both his determination and attention to details.
  - (c) His coworkers praised both his determination and paying attention to details.
  - (d) His coworkers praised both his determination and attention to detailing.
13. (a) She likes to listen to music and reading the latest novels.
- (b) She likes to listen to music and to reading the latest novels.
  - (c) She likes to listen to music and read the latest novels.
  - (d) She likes to listen to music and having read the latest novels.

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14. (a) Joan decided to paint her office, to add some new curtains, and that the rug needs dry cleaning.
- (b) Joan decided painting her office, to add some new curtains and the rug to be dry cleaned.
  - (c) Joan decided to get her office painted, to add some new curtains and rug dry cleaning.
  - (d) Joan decided to paint her office, to add some new curtains, and to dry clean the rug.
15. (a) Cooking and eating at home is a good idea for students because it saves time, money and it is easy to do.
- (b) Cooking and eating at home is a good idea for students because it is saving time, money and it is easy to do.

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- (c) Cooking and eating at home is a good idea for students because it saves time, money, and effort.
- (d) Cooking and eating at home is a good idea for students because it saves time, money and it is at the same time easy to do.

**Directions (Q. Nos. 16-30) :** In each of the given questions, a statement is given followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

**Give Answer :**

- (a) If on Conclusion I follows
- (b) If only Conclusion II follows
- (c) If neither I nor II follows
- (d) If both I and II follow

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16. **Statement :** The distance of 900 km by road between Jafra and Bombay will be reduced to 280 km by sea. This will lead to a saving of ₹ 7.92 crores per annum on fuel.

**Conclusions :**

- (i) Transportation by sea is cheaper than that by road.
- (ii) Fuel must be saved to the greatest extent.

17. **Statement :** This book 'Z' is the only book which focuses its attention to the poverty issue in India between 1950 and 1980.

**Conclusions :**

- (i) There was no question of poverty before 1950.
- (ii) No other book deals with poverty in India during 1950 to 1980.

18. **Statement :** The percentage of national income shared by the top 10 percent of households in India is 35.

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**Conclusions :**

(i) When the economy grows fast, concentration of wealth in certain pockets of population takes place.

(ii) The national income is unevenly distributed in India.

19. **Statement :** The Cabinet of State X took certain steps to tackle the milk glut in the state as the cooperatives and government dairies failed to use the available milk. – A news report.

**Conclusions :**

(i) The milk production of State X is more than its need.

(ii) The Government and co-operative dairies in State X are not equipped in terms of technology and resources to handle such excess milk.

20. **Statement :** The manager insulted Sachin in the presence of his colleagues.

**Conclusions :**

(i) The manager didn't like Sachin.

(ii) Sachin was not popular with his colleagues.

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21. **Statement :** If all the players play to their full potential, we will win the match. We have won the match.

**Conclusions :**

(i) All the players played to their full potential.

(ii) Some players did not play to their full potential.

22. **Statement :** Fashion is a form of ugliness so intolerable that we have to alter it after every six months.

**Conclusions :**

(i) Fashion designers do not understand the public mind well.

(ii) The public is highly susceptible to novelty.

23. **Statement :** Money plays a crucial role in politics.

**Conclusions :**

(i) The poor can never become politicians.

(ii) All the rich men take part in politics.

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24. **Statement :** Any man who makes dowry as a condition for marriage discredits himself and dishonours womanhood.

**Conclusions :**

- (i) Those who take dowry in marriage should be condemned by society.
- (ii) Those who do not take dowry in marriage respect womanhood.

25. **Statement :** It has been decided by the Government to withdraw 33% of the subsidy on cooking gas from the beginning of next month. – A spokesman of the Government.

**Conclusions :**

- (i) People now no more desire or need such subsidy from Government as they can afford increased price of the cooking gas.
- (ii) The price of the cooking gas will rise at least by 33% from the next month.

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26. **Statement :** In a recent survey report, it has been stated that those who undertake physical exercise for at least half an hour a day are less prone to have any heart ailments.

**Conclusions :**

- (i) Moderate level of physical exercise is necessary for leading a healthy life.
- (ii) All people who do desk-bound jobs definitely suffer from heart ailments.

27. **Statement :** Only good singers are invited to the conference. No one without sweet voice is a good singer.

**Conclusions :**

- (i) All the singers invited to the conference have a sweet voice.
- (ii) Those singers who do not have sweet voice are not invited to the conference.

28. **Statement :** Recent trends also indicate that the number of child migrants in large cities is rising. These children leave their families to join the rank of urban poor doing odd jobs in markets, workshops, hotels or in service sectors.

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**Conclusions :**

- (i) Migration to big cities should be checked.
- (ii) The plight of poor children should be thoroughly studied.

29. **Statement :** Irregularity is a cause for failure in exams. Some regular students fail in the examinations.

**Conclusions :**

- (i) All failed students are regular.
- (ii) All successful students are not regular.

30. **Statement :** Until our country achieves economic equality, democracy and political freedom would be meaningless.

**Conclusions :**

- (i) Political freedom and democracy go hand in hand.
- (ii) Economic equality leads to democracy and real political freedom.

**Directions (Q. Nos. 31-40) :** Read the passage carefully and answer the questions that follow :

This past decade has witnessed a surge in wildlife tourism that has doubled and tripled the tourist load in several of the more accessible national parks and reserves. But serious infrastructural shortcomings have brought us precariously close to a breakdown of the ecosystem's capacity to absorb this load. The result is an unsatisfactory tourist experience (and an opportunity to impart conservation values lost), overworked, pressurized and confused wildlife staff, and occasional man-animal confrontation crises such as man-killing by tigers. Not to speak of the ecosystem that is being battered by humans. A road area, which accommodated four vehicles a day, ten years ago, is now being used by 12 a day. The road area the wildlife population of that area has in any case gone up. A collision of interests is inevitable. An important function of wildlife refuges is to encourage tourism. Recognising that

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it forms an ideal-hands-on|| method of orienting, educating and winning the hearts and minds of the general public over to conservation values and concepts. This can only be achieved by communication with tourists before and during their visits to a wildlife refuge. The — interpretation|| as it is generally referred to, is properly done by having an interpretation centre, consisting of photographic, written and audio-visual exhibits supplemented by free or priced literature and a person on hand to answer the queries of visitors. Tourists should perforce be routed through this facility by the simple expedient they have some time to see it while their entry permits are being prepared. The general message should be the history of the wildlife refuge as a conservation microcosm, interesting facts of some of the species it supports, and an explanation of the mechanics of an ecosystem and its relevance to man, plus codes of conduct specific to the area and to wildlife and jungles in general. This should be

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backed up by a cadre of trained naturalist guides, preferably from the local population, who should accompany the tourists in the refuge. In some of our wildlife refuge, very poor facilities for this sort of thing exist. In most, none exist at all. The result is tourist traffic, which is generally quite ignorant of wildlife, ecology and conservation values, who leave the refuge no wiser than when they came in leaving behind for good measure the detritus of their presence : plastic bags, cigarette packets, bottle, paper, a lot of which is non- biodegradable and toxic. Added to this is the fact that wildlife guards and rangers are often diverted from their normal work-monitoring and managing wildlife and the ecosystem —and made to guide tourists and generally be at the back and call of people, irrelevant to the priorities of the wildlife refuge.

31. Which of the following is not true in the context of the passage ?

- (a) The forest staff are diverted from their normal work.

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- (b) The priorities of the wildlife are sometime ignored by the forest staff.
- (c) The tourists are generally equipped with the necessary knowledge of wildlife.
- (d) The tourists leave behind lots of toxic disposals.

32. According to the passage, the main purpose of bringing tourists in the forest areas is :

- (a) to involve the general public in maintaining the ecosystem
- (b) to educate the general public about wildlife and ecosystem
- (c) to reduce the wildlife population
- (d) to make them understand the codes of conduct of the jungles

33. Which of the following best explain this according to the passage ?

- (a) Unwillingness to build more road area vis-à-vis load of vehicular traffic

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- (b) Development of tourism vis-à-vis the conservation of the ecosystem
- (c) Better tourist capability vis-à-vis lack of funds
- (d) Positioning people to ecosystem and also destruction of the ecosystem.

34. What, according to the author, should be the step to improve the situation ?

- (a) Tourists should be briefed about the nature of wildlife and jungle.
- (b) Tourists should be briefed about the inter-relation between man and animals.
- (c) Tourists should be briefed about the information before they enter the jungle.
- (d) All of the above

35. What according to the author, will win the hearts and minds of the general public ?

- (a) Providing them better facilities

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- (b) Providing them with trained guides
  - (c) Providing them with good food articles
  - (d) Providing them with better communication about the wildlife refuge
36. What, according to the passage, should the forest staff be engaged in ?
- (a) They should look after the well-being of wildlife.
  - (b) They should take care of the habitat of wildlife.
  - (c) They should provide tourists with necessary information about wildlife.
  - (d) They should take help of the local people to take care of the tourists.
37. The main concern expresses by the author in the above passage is to :
- (a) improve facilities for tourists
  - (b) build more road areas
  - (c) restrict wildlife population
  - (d) balance the ecosystem by careful planning.

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38. Which of the following words is most nearly the same in meaning as the words – on hand|| as used in the passage ?
- (a) practical
  - (b) available
  - (c) useful
  - (d) knowledgeable
39. Man-animal confrontation, according to the passage leads to :
- (a) Killing of tigers by man
  - (b) Killing of animals by other animals
  - (c) Confusion of wildlife staff
  - (d) Destruction of mutual bond
40. What, according to the author, is the main reason for the near collapse of the capacity of the ecosystem of wildlife refugees ?
- (a) Increase in tourist inflow
  - (b) Felling of trees indiscriminately
  - (c) Absence of adequate wildlife habitat
  - (d) Absence of adequate infrastructural

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41. Find the largest 3 digit number which gives a remainder of 2 when divided by 3, 4 and 5 :

- (a) 902
- (b) 962
- (c) 992
- (d) None of these

42. Which of the following has the largest value

$$4^{\frac{1}{4}}, 5^{\frac{1}{5}}, 6^{\frac{1}{6}}, 7^{\frac{1}{7}} ?$$

- (a)  $4^{\frac{1}{4}}$
- (b)  $5^{\frac{1}{5}}$
- (c)  $6^{\frac{1}{6}}$
- (d)  $7^{\frac{1}{7}}$

43. A farmer decides to plant saplings in rows such that each row has the same number of saplings. If he plants 5 more saplings per row, the number of rows required will reduce by 5. If the number of rows initially required is 1 more than twice the number of saplings planted per row, find the total number of saplings :

- (a) 9

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- (b) 40
- (c) 36
- (d) 24

44. Find the last digit of  $23^{729} \times 78^{900}$  :

- (a) 7
- (b) 3
- (c) 0
- (d) 8

45. If  $a$  and  $b$  are consecutive even numbers, then the LCM of the numbers will be :

- (a)  $a \times b$
- (b)  $(a \times b)^2$
- (c)  $(a \times b)^2$
- (d) Cannot be determined

46. A boy had certain number of Candies. If he divides it between himself and his 2 siblings, there are 2 toffees that would remain. But if he also includes his parents, there would be no candies left. Given that the number of candies

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is a 2 digit number, how many values can it assume ?

- (a) 5
- (b) 7
- (c) 6
- (d) 9

47. The sum of a 2 digit number and the number obtained by reversing the digits is 55. If the digit in the ten's place is one more than the digit in the unit's place, find the remainder when the number is divided by 4 :

- (a) 0
- (b) 1
- (c) 2
- (d) 3

48. Find the Remainder when  $1457 \times 2968 \times 1379$  is divided by 4 :

- (a) 0
- (b) 1
- (c) 2
- (d) 3

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49. How many pairs of numbers exist such that HCF is 4 and LCM is 64 ?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

50. Find the total number of factors of 72 :

- (a) 12
- (b) 10
- (c) 8
- (d) 6

51. A car driver leaves Prayagraj at 10 : 30 A.M. and expects to reach a place 300 km from Prayagraj at 2 : 30 P.M. At 12 : 30 P.M. he finds that he has covered only 40% of the distance. By how much he must increase the speed of the car in order to keep up his schedule ?

- (a) 45 km/h
- (b) 40 km/h
- (c) 35 km/h
- (d) 30 km/h

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52. Two places P and Q are 162 km apart. A train leaves P for Q and simultaneously another train leaves Q for P. They meet at the end of 6 hours. If the former train travels 8 km/h faster than the other, then speed of train from Q is :

- (a)  $12 \frac{5}{6}$  km/h
- (b)  $10 \frac{5}{6}$  km/h
- (c)  $9 \frac{1}{2}$  km/h
- (d)  $8 \frac{1}{2}$  km/h

53. The speed of the boat in still water is 6 kmph and the speed of the current is 1.2 kmph. Boat takes a total of 10 hours to go to a place and come back. What is the total distance covered in the whole process ?

- (a) 40 km
- (b) 48 km
- (c) 57.6 km
- (d) 60 km

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54. Sumit has to cover a certain distance of 7 km in 1 hour and 12 mins. If he walks some distance at 4 kmph and rides a horse for some distance at 10 kmph, he reaches destination on time. How far did he walk on foot ?

- (a)  $\frac{8}{3}$  km
- (b)  $\frac{10}{3}$  km
- (c)  $\frac{11}{5}$  km
- (d)  $\frac{21}{5}$  km

55. A thief steals a car at 1:30 P.M. and drives it at 40 kmph. The theft is discovered at 2:00 P.M. and the owner sets off in another car at 50 kmph. He will overtake the thief at :

- (a) 4 : 00 P.M.
- (b) 4 : 30 P.M.
- (c) 3 : 00 P.M.
- (d) 5 : 00 P.M.

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56. The difference between the cost price and selling price of an article is ₹ 500 if the profit is 25%. The selling price is :

- (a) ₹ 750
- (b) ₹ 1,500
- (c) ₹ 1,800
- (d) ₹ 2,500

57. Sanchi buys dress for 10% less than its value and sells it for 10% more than its value. His gain or loss percent is :

- (a) no profit, no loss
- (b) 20% profit
- (c) more than 20% profit
- (d) less than 20% profit

58. If a book is sold for ₹ 120 there is a loss of 15%. For a profit of 2%, the book is to be sold for :

- (a) ₹ 144
- (b) ₹ 146
- (c) ₹ 150
- (d) ₹ 153

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59. The percent profit when an article is sold for ₹ 630 is twice than when the same article is sold for ₹ 470. The cost price of the article is :

- (a) ₹ 300
- (b) ₹ 310
- (c) ₹ 380
- (d) ₹ 400

60. By selling 8 articles, a shopkeeper makes a loss equal to the cost price of 4 articles. Find loss percentage :

- (a) 25%
- (b) 33.33%
- (c) 50%
- (d) 40%

61. The population of a city is increased 5% and 7% in the last two years, what will be the present population if the population of a town was 2,40,000 two years ago (approx.) ?

- (a) 2,99,200
- (b) 2,99,250
- (c) 2,69,640
- (d) 2,99,350

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62. In an election contested by two parties, X and Y, party X secured 25 percent of the total votes more than party Y. If party X gets 15000 votes. By how much votes do party Y loses the election ?
- (a) 2500  
(b) 3000  
(c) 3200  
(d) None of these
63. A shopkeeper sells 50 percent of apples he had and throws away 20 percent of the remainder. Next day he sells 60 percent of the remainder and throws away the rest. What percent of his apples does the shopkeeper throw ?
- (a) 24%  
(b) 25%  
(c) 26%  
(d) 80%
64. A discount of 25% on one toy is same as a discount of 50% on another toy. The marked up prices of two articles can be :
- (a) ₹ 40, ₹ 30  
(b) ₹ 50, ₹ 30  
(c) ₹ 80, ₹ 40  
(d) ₹ 20, ₹ 40

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65. A shopkeeper sells sugar at 10% profit. If he sells it at 20% profit, he gets ₹ 120 more. Find the CP :
- (a) 1100  
(b) 1120  
(c) 1150  
(d) 1200
66. Sharmaji contractor undertakes to get a job done in 50 days by 50 labourers. After 40 days, he realizes that only 50% of the work is done. How many more men should be employed so that the work is completed on time ?
- (a) 140  
(b) 145  
(c) 50  
(d) 150
67. J and K can do a piece of work in 12 and 15 days respectively. They began their work but before 3 days of its completion, K left. In how many days the total work will be completed ?
- (a) 6 days

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- (b) 7 days
- (c) 8 days
- (d) 9 days

68. X does half as much work as Y in three-fourths of the time. If together they take 36 days to complete the work, then the time taken by Y alone to do the work :

- (a) 60
- (b) 45
- (c) 50
- (d) 40

69. Sonu can finish a work in 27 days, Monu in 9 days and Golu in 12 days. Monu and Golu start the work but are forced to leave after 4 days. The remaining work done by Sonu in :

- (a) 5 days
- (b) 6 days
- (c) 8 days
- (d) 10 days

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70. J and K working separately can do a piece of work in 6 days and 11 days, if they work alternately beginning with J, then the work will be completed in how many days ?

- (a) 5 days
- (b) 6 days
- (c) 8 days
- (d)  $23\frac{1}{3}$  days

71. The price of a bike is decreased by 20%. As a result of which the sale increased by 40%. What will be the effect on the total revenue of the shop ?

- (a) 12% Loss
- (b) 12% Profit
- (c) 20% Profit
- (d) 20% Loss

72. Amit saves 10%, after 2 years when his income is increased by 10%, he could save the same money, then how much his expenditure increased ?

- (a) 8%
- (b) 11.11%
- (c) 16.66%
- (d) 15%

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73. Fresh fruits contain 70% of water and dry fruits contain 20% of water. How much dry fruits can be obtained from 100 kg of fresh fruits ?
- (a) 35
  - (b) 37
  - (c) 37.5
  - (d) 40
74. In an examination, full mark is 500, A gets 25 % more than B, B gets 40% more than C and C gets 60% more than D. If A got 420, what percentage of full marks did D got ?
- (a) 20
  - (b) 21
  - (c) 22
  - (d) 30
75. Depreciation applicable to an equipment is 25 %. The value of the equipment after 2 years from now will be less by (in percentage) ?
- (a) 38.36%
  - (b) 42.63%
  - (c) 43.75%
  - (d) 48.66%

(39) XMC-201/MSD-205(B)

76. Taps J, K and L can fill a tank in 3, 4 and 6 hours respectively. If all the taps are opened together and after 1 h pipes K and L are turned off, find the total time in which the tank is full :
- (a)  $1 \frac{3}{8}$  hrs.
  - (b)  $1 \frac{2}{7}$  hrs.
  - (c)  $1 \frac{3}{4}$  hrs.
  - (d)  $1 \frac{1}{3}$  hrs.
77. Two pipes J and K can fill a tank in 10 min. and 12 min. respectively and a third pipe L can carry off 12 litres of water per minute. If all the pipes are opened when the tank is full and it takes one hour to empty the tank. Find the capacity of the tank in litres :
- (a) 30
  - (b) 50
  - (c) 60
  - (d) 75

P. T. O.

(40) XMC-201/MSD-205(B)

78. A man takes first 50 km at 25 kmph, next 40 km at 20 kmph and 90 km at 15 kmph. His average speed for the whole journey in kmph :
- (a) 18
  - (b) 20
  - (c) 25
  - (d) 32
79. Raman walks from his house at 5 kmph and reaches his office 10 min. late. If the speed had been 6 kmph he would have reached 15 min. early. The distance of his office from his house :
- (a) 10 km
  - (b) 12 km
  - (c) 12.5 km
  - (d) 15 km
80. Deepak goes to the school with the speed of 3 kmph and returns with the speed of 2 kmph. If he takes 5 hours in all, then the distance between the village and the school is :
- (a) 5 km
  - (b) 6 km
  - (c) 7 km
  - (d) 7.5 km

(41) XMC-201/MSD-205(B)

81. What will be the compound interest on a sum of ₹ 25,000 after 3 years at the rate of 10% p.a. ?
- (a) ₹ 38,543.60
  - (b) ₹ 38,021.87
  - (c) ₹ 33,275
  - (d) None of these
82. The difference between simple interest and compound interest on ₹ 1,800 for one year at 10% p.a. reckoned half-yearly is :
- (a) 3.6
  - (b) 5.4
  - (c) 4.5
  - (d) 45
83. There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of ₹ 12,000 after 2 years at the same rate ?
- (a) ₹ 2,520
  - (b) ₹ 3,972
  - (c) ₹ 4,136
  - (d) ₹ 4,086

P. T. O.

(42) XMC-201/MSD-205(B)

84. How many words can be formed using the letters of the word 'CORRESPONDENCE' ?
- (a)  $(14!)/(2!)^4$   
(b)  $14!$   
(c)  $(14!)/2!(3!)^4$   
(d)  $(14!)/(2!)^3(3!)$
85. How many words can be formed using the letters of the word 'CORRESPONDENCE' if the consonants are always written together ?
- (a) 182  
(b) 184  
(c)  $216 \times 9!$   
(d) None of these
86. At SI, a certain sum of money amounts to ₹ 1,600 in two years and to ₹ 1,800 in three years. Find the rate of interest :
- (a) 16.66%  
(b) 18%  
(c) 12.50  
(d) None of these

(43) XMC-201/MSD-205(B)

87. The simple interest on a certain sum of money for  $2\frac{1}{2}$  a 12% per annum is 40 less than the simple interest on the same sum for  $3\frac{1}{2}$  years at 10% per annum. Find the sum :
- (a) ₹ 600  
(b) ₹ 800  
(c) ₹ 900  
(d) ₹ 1,050
88. A certain amount earns simple interest of ₹ 1,500 after 6 years. Had the interest been 3% more, how much more interest would have earned ?
- (a) ₹ 20,000  
(b) ₹ 22,000  
(c) ₹ 23,000  
(d) Data inadequate
89. The difference between the simple interest received from two different sources on ₹ 1,500 for 3 years is ₹ 7.50. The difference between their rates of interest is :
- (a) 0.1666%  
(b) 0.8333%  
(c) 1.323%  
(d) None of these

P. T. O.



(44) XMC-201/MSD-205(B)

90. Saurav invested an amount of ₹ 12,000 in a fixed deposit scheme for 2 years at compound interest rate 5 p.c.p.a. How much amount will Saurav get on maturity of the fixed deposit?
- (a) ₹ 12,140  
(b) ₹ 12,890  
(c) ₹ 13,230  
(d) ₹ 14,428
91. In an exam paper 1st section contains 10 questions each with 5 choices and second section contains 5 questions each with 4 choices. In how many ways can the paper be answered if all the questions are attempted?
- (a)  $10^5 \times 4^5$   
(b)  $5^{10} \times 4^5$   
(c)  $500 \times 54$   
(d)  $150 \times 54$
92. Three unbiased coins are tossed. What is the probability of getting exactly two heads?
- (a)  $3/8$   
(b)  $5/8$   
(c)  $1/2$   
(d)  $3/5$

(45) XMC-201/MSD-205(B)

93. There are 6 red balls and 5 yellow balls in a bag. Two balls are simultaneously drawn at random, what is the probability that both the balls are of the same colour?
- (a)  $5/11$   
(b)  $17/55$   
(c)  $10/55$   
(d)  $6/11$
94. Ram speaks the truth in 75% cases and Shyam speaks the truth in 50% cases. Find the probability that both will contradict with each other while saying the same statement:
- (a) 40%  
(b) 50%  
(c) 25%  
(d) Cannot be determined
95. A five-digit number is formed with the digits 0, 1, 2, 4 and 6 without repetition. Find the chance that the last digit is 2:
- (a)  $3/5$   
(b)  $1/4$   
(c)  $3/15$   
(d)  $3/16$

P. T. O.

(46) XMC-201/MSD-205(B)

96. At a get-together, it was found that a total of 66 handshakes took place at the conclusion of the party. If each guest shook hand only once with all the others, how many people were present ?
- (a) 33
  - (b) 22
  - (c) 12
  - (d) 13
97. From 4 gentlemen and 6 ladies, a committee of five is to be formed. The number of ways in which the committee can be formed so that the gentlemen are in majority is :
- (a) 66
  - (b) 156
  - (c) 60
  - (d) 150
98. In how many ways can three prizes be given away to 5 students when each student is eligible for all the prizes ?
- (a) 243
  - (b)  $5C3$
  - (c)  $5P3$
  - (d) 125

(47) XMC-201/MSD-205(B)

99. A round table conference is to be held between 20 delegates. If two particular delegates are always to sit together, then they can be seated in :
- (a)  $2 \times 19!$  ways
  - (b)  $19!$  ways
  - (c)  $20!$  ways
  - (d)  $2 \times 18!$  ways
100. Find the numbers of arrangements of the letters of the word 'Maruti' if 'u' always comes before a :
- (a) 60
  - (b) 180
  - (c) 420
  - (d) 360