

Roll No. ....

**KMC-201/MSD-205(A)**

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

**MID SEMESTER**

**EXAMINATION, April, 2023**

**PROFESSIONAL COMMUNICATION AND  
CAREER SKILLS/CAREER SKILLS—II**

**Time : 1½ Hours**

**Maximum Marks : 50**

**Instructions for Students :**

1. This paper consists of 50 questions.
2. All questions are compulsory.
3. Use of calculator is not allowed.
4. There is no negative marking for incorrect responses.
5. Each question carries equal marks.
6. It is compulsory to write the SET on the OMR.

**P. T. O.**

(2) XMC-201/MSD-205(A)

Set-A

1. The H.C.F. of two numbers is 11 and their L.C.M. is 7700. If one of the numbers is 275, then the other is :  
(a) 269  
(b) 275  
(c) 308  
(d) 310
2. If  $a679b$  is a five digit number that is divisible by 72, then what is the value of  $(a+b)$  ?  
(a) 3  
(b) 5  
(c) 7  
(d) 9
3. How many trailing zeros are in  $(10^{12} \times 2^{13} \times 5^{15} \times 12!)$  ?  
(a) 20  
(b) 15  
(c) 29  
(d) 26

(3) XMC-201/MSD-205(A)

4. Find out the unit digit in  $4^{39} \times 9^{78}$  :  
(a) 1  
(b) 2  
(c) 3  
(d) 4
5. What is the remainder when  $1! + 2! + 3! \dots 100!$  is divided by 15 ?  
(a) 11  
(b) 3  
(c) 13  
(d) 17
6. What is the remainder of  $1421 \times 1423 \times 1425$  when divided by 12 ?  
(a) 1  
(b) 2  
(c) 3  
(d) 4
7. The traffic lights at three different road crossings change after every 40 sec, 72 sec and 108 sec respectively. If they all change

(4) XMC-201/MSD-205(A)

simultaneously at 7 : 10 : 00 hours, then find the time at which they will change simultaneously :

- (a) 7 : 18 : 00 hrs.
- (b) 7 : 30 : 00 hrs.
- (c) 7 : 28 : 00 hrs.
- (d) 7 : 40 : 00 hrs.

8. A number is divided by 221, the remainder is 64. If the number be divided by 17, then remainder will be :

- (a) 13
- (b) 11
- (c) 15
- (d) 7

9. The digit in unit's place of the product  $71 \times 72 \times \dots \times 79$  is.

- (a) 1
- (b) 9
- (c) 3
- (d) 0

(5) XMC-201/MSD-205(A)

10. Find the number of factors of 273 :

- (a) 3
- (b) 6
- (c) 8
- (d) 15

11. Which of the following is correct ?

- (a) All even numbers are Natural numbers.
- (b) All even numbers are Integers.
- (c) All even numbers are Prime.
- (d) None of these

12. What is the remainder when  $2^{202}$  is divided by 9 ?

- (a) 0
- (b) 5
- (c) 7
- (d) 6

13. A man spends 35% of his income on food, 25% on children's education, and 80% of the

(6) XMC-201/MSD-205(A)

remaining on house rent. What percent of his income he is left with ?

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

14. A man sells two articles. The cost price of the first article is equal to the selling price of the second article. The first article is sold at a profit of 20% and the second article is sold at a loss of 20%. What is the ratio of the selling price of the first article and the cost price of the second article ?

- (a) 24 : 25
- (b) 25 : 24
- (c) 29 : 27
- (d) 27 : 29

(7) XMC-201/MSD-205(A)

15. If the numerator of a fraction is increased by 50% and the denominator of the fraction is decreased by 30%, the resultant fraction is  $\frac{75}{49}$ . What is the original fraction ?

- (a)  $\frac{5}{7}$
- (b)  $\frac{11}{17}$
- (c)  $\frac{15}{7}$
- (d)  $\frac{5}{14}$

16. A and B sold their bicycle at Rs. 9831 each. But A incurred a loss of 13%, while B gained 13%. What is the ratio of the cost price of the bicycle of A to that of B ?

- (a) 13 : 7
- (b) 113 : 87
- (c) 642 : 537
- (d) 7 : 3

17. Due to reduction of 20% price in wheat, A man can get 10 kg more in ₹ 600. New rate of wheat is :

- (a) ₹ 11.50/kg

(8) XMC-201/MSD-205(A)

(b) ₹ 12.50/kg

(c) ₹ 12/kg

(d) ₹ 13/kg

18. A wholesaler sells a watch to a retailer at a profit of 25% and the retailer sells it to a customer at a loss of 12%. If the customer pays ₹ 1,045, what had it cost the wholesaler ?

(a) ₹ 950

(b) ₹ 1,149

(c) ₹ 1,244

(d) ₹ 751

19. In an examination, there were 2,000 candidates, out of which 900 candidates were girls and rest were boys. If 38% of the boys and 32% of the girls passed, then the total percentage of failed candidates is :

(a) 35.6%

(b) 64.7%

(c) 68.5%

(d) None of these

(9) XMC-201/MSD-205(A)

20. The population of a town increased from 1,75,000 to 2,62,500 in a decade. The average percent increase of population per year is :

(a) 4.37%

(b) 5%

(c) 6%

(d) 8.75%

21. Fresh sugarcane contains 84% water and dried sugarcane contains 28% water. How many kilograms of dried sugarcane can be obtained from 90 kg of fresh sugarcane ?

(a) 40

(b) 20

(c) 50

(d) 30

22. Juhi sells a washing machine for ₹ 13,500. She loses 20% in the bargain. At what price Juhi bought the washing machine ?

(a) ₹ 16,875

(b) ₹ 16,800

(c) ₹ 16,825

(d) ₹ 17,685

( 10 ) XMC-201/MSD-205(A)

23. A sum of money becomes two times in 3 years, If the rate is compounded annually. In how much time will the same amount at the same compound rate become eight times ?
- (a) 6 years
  - (b) 9 years
  - (c) 8 years
  - (d) 5 years
24. If the simple interest on a certain sum of money is  $\frac{5}{20}$ th of the sum and the rate percent equals the number of years, then the rate of interest per annum is :
- (a) 2%
  - (b) 4%
  - (c) 6%
  - (d) 5%
25. What will be the ratio of simple interest earned by a certain amount at the same rate of interest for 8 years and that for 12 years ?
- (a) 1 : 2
  - (b) 2 : 3
  - (c) 3 : 4
  - (d) 1 : 3

( 11 ) XMC-201/MSD-205(A)

26. The difference between the simple interest and compound interest on a certain sum for 2 years at 15% interest is ₹ 180. Find the Principal :
- (a) ₹ 6,500
  - (b) ₹ 7,000
  - (c) ₹ 7,500
  - (d) ₹ 8,000
27. A person earns an interest of 240 on investing a certain amount at simple interest for 2 years at 5 percent per annum. If the rate of interest is compounded annually, then how much more interest will be gained by the person at the same rate of interest and on the same sum ?
- (a) 6
  - (b) 8
  - (c) 12
  - (d) 10



(12) XMC-201/MSD-205(A)

28. At simple interest, a sum of ₹ 3,000 becomes ₹ 3,600 in 3 years at 15 percent per annum. What will be the sum at the same rate after 9 years ?
- (a) ₹ 4,200
  - (b) ₹ 4,800
  - (c) ₹ 4,500
  - (d) ₹ 4,000
29. The simple interest on a certain sum for 2 years at 10% per annum is ₹ 90. The corresponding compound interest is :
- (a) 97
  - (b) 90
  - (c) 94.50
  - (d) 100
30. At simple interest, 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

(13) XMC-201/MSD-205(A)

**Directions (Q. Nos. 31-35) :** Each of the questions given below has an error of Parallel Construction. Attempt these questions on the basis of given instructions.

Choose the right answer using parallelism :

31. Sarah has \_\_\_\_\_
- (a) A car, a bike, and a cycle.
  - (b) A car, a bike, and she has a cycle.
  - (c) A car and a bike, and she has a cycle.
  - (d) None of these

Choose the best possible option/s to replace the given sentence :

32. Kajal presented the paper perfectly and with confidence.
- (a) Kajal with confidence presented the paper perfectly.
  - (b) Kajal presented the paper perfectly and confidently.
  - (c) Kajal presented the paper with perfection and confidence.
  - (d) Both (b) and (c)

( 14 ) XMC-201/MSD-205(A)

Replace the underlined phrase with the best option out of given choices :

33. His coworkers praised both his determination and the way he paid attention to detail.

- (a) and the way he paid attention to detail
- (b) and also praised his attention to detail
- (c) and his attention to detail
- (d) they praised the way he paid attention to detail

Choose the best option to replace the given sentence :

34. Richard is not only a terrific pianist, but also great at playing hockey.

- (a) Richard is not only a terrific pianist, but also great at playing hockey.
- (b) Richard not only is a terrific pianist, but is also great at playing hockey.
- (c) Not only great at playing hockey, Richard also is a terrific pianist.
- (d) Richard is not only a terrific pianist, but also a great hockey player.

( 15 ) XMC-201/MSD-205(A)

Replace the underlined phrase with the right word choosing from the given options :

35. The production manager was asked to create his presentation quickly, accurately and in a detailed manner.

- (a) confidentially
- (b) thoroughly
- (c) detrimentally
- (d) Sparingly

**Directions (Q. Nos. 36-40) :** Choose the grammatically correct option in the questions given below :

36. (a) Neither of the boys has done his homework.
- (b) Neither of the boys has done its homework.
- (c) Neither of the boys have done their homework.
- (d) Neither of the boys have done hers homework.



(16) XMC-201/MSD-205(A)

37. (a) Both of the women agreed that her food was not good.
- (b) Both of the women agreed that their food was not good.
- (c) Both of the women agreed hers food was not good.
- (d) Both of the women agreed that ours food was not good.
38. (a) One must respect his national flag.
- (b) One must respect once national flag.
- (c) One must respect one's national flag.
- (d) One must respect their national flag.
39. (a) Each of these founding fathers are known to have left their mark on the world.
- (b) Each of these founding fathers is known to have left his mark on the world.

(17) XMC-201/MSD-205(A)

- (c) Each of these founding fathers are known to have left them mark on the world.
- (d) Each of these founding father's is known to have left its on the world.
40. (a) The audience screamed in unison as it saw the zombie hordes approaching.
- (b) The audience screamed in unison as they saw the zombie hordes approaching.
- (c) The audience screamed in unison as those saw the zombie hordes approaching.
- (d) The audience screamed in unison as s/he saw the zombie hordes approaching.

**Directions (Q. Nos. 41-46) :** Choose the most logical order of sentences from among the given choices to construct a coherent paragraph :

41. A : Says one recent North Korean defector :
- “While one third of the population can eat rice and meat soup and one third can manage to eat corn, the remaining one third is waiting to die with water thin porridge.”

(18) XMC-201/MSD-205(A)

B : by cutting state subsidies and freeing prices, Kim has sent inflation through the roof-making basic foodstuffs catastrophically expensive.

C : For Kim, the next few months could be critical.

D : Domestically, he must deal with the short term fallout from the limited economic reforms he introduced two years ago.

E : A recent report by the World food Program states that they have caused even more problems for North Korea's people.

(a) BDEAC

(b) CEDBA

(c) CDEBA

(d) BAEDC

42. A : Arturo Fernandez, a mid level accountant in a division of Mexico's interior Ministry got a lump in his stomach two years ago as he was crunching numbers.

(19) XMC-201/MSD-205(A)

B : On July 2 that year, Fernandez presented an official complaint to his office Comptroller.

C : Disaster relief material and money destined for the coasts had some wound up in Mexico's interior without sufficient explanation.

D : The 55 year old bureaucrat began to notice what he calls "irregularities" in the office accounts-overly expensive purchases and what appeared to be evidence of no-bid contracts.

E : But 17 days later, when he showed up for work, armed policemen outside the office stopped him at the door.

(a) CEABD

(b) ACDBE

(c) DEBAC

(d) ADCBE

( 20 ) XMC-201/MSD-205(A)

43. A : Their parents are offered a few thousand rupees in the first few months after which payment is stopped.

B : Hundreds of children are taken by agents to Kerala to be employed as domestic helps.

C : Worse is the plight of children in the 10-14 age groups who are taken to Maharashtra and Gujarat to be employed under excruciating conditions in sweet making units.

D : Police and NGOs confide that a number of scams work overtime in the poverty stricken pockets of Villupuram, Theni, Kambam, Madurai, Thenkasi and Chennai.

E : Child trafficking across state borders is rampant.

- (a) BCDAE
- (b) EDBAC
- (c) BACED
- (d) DBACE

( 21 ) XMC-201/MSD-205(A)

44. A : Recently Elizabeth showed me a gorgeous scarf she'd made..

B : when she brings her clients to doctors' appointments, she knits while she waits.

C : Knitting is a passion for my friend Elizabeth, who is caregiver for the elderly.

D : "How long does something like that take ?" I asked.

E : "about one stress test and one colonoscopy", she estimated.

- (a) CBADE
- (b) DECBA
- (c) CEBAD
- (d) ADECB

45. A : Anyone who invested in the IPO for brokerage firm Indiabulls in September 2004 and is still holding the shares must be a very happy person.

(22) XMC-201/MSD-205(A)

B : Therefore, the ₹ 200 Crores in wealth created by Indiabulls is dwarfed by the estimated ₹ 2,200 crore created by the IPO of software giant TCS.

C : happy and Rich

D : In the eight months since the Indiabulls public issue, an investment of ₹ 20,000 is now worth almost ₹ 1 lakh.

E : But Indiabulls issue was small in size ₹ 52 crore.

(a) ABCED

(b) DBACE

(c) ACDEB

(d) DCEBA

46. A : Beijing gave no sign it intended to change the policy in near term, which was bad for world's automakers.

(23) XMC-201/MSD-205(A)

B : A 30 percent sales increase in the first half of the year dipped to a meager 6.8 percent in July.

C : The August forecast was worse : a minuscule 0.1 per cent.

D : the main reason for the slowdown was the government's new policy of tightening credit rules to slow an overheating economy.

E : After racing along at a 62 percent growth rate in 2002 and 76 percent in 2003, car sales in China hit a speed bump in 2004.

(a) AEBCD

(b) EBCDA

(c) DAEB C

(d) ECBDA

**Directions :** Identify the correct order of the sentences in the questions given below from Q. Nos. 47-50 so that they form a coherent paragraph. Choose your answer from the provided options.

(24) XMC-201/MSD-205(A)

47. 1. Legacy airlines, on the other hand, are more likely to run old, carbon spewing jumbos. Nearly half of BA's transatlantic capacity, for example, is accounted for by 747s.
2. On average, a nonstop transatlantic flight spews out about a tone of CO2 emissions per passenger but that figure hides a big spread in the fuel efficiency measures of different airlines.
3. One reason for its impressive performance is that it predominantly runs a fleet of modern efficient Boeing 787-8s. The planes it uses are, on average, also only two years old and its high tax-km/I is also down to the fact that it squeezes in more passengers.
4. A new study of the 20 biggest transatlantic carriers by the International Council of Clean Transportation (ICCT) found that there was a 51% difference between the

(25) XMC-201/MSD-205(A)

fuel efficiency of the best performing airline, Norwegian Air Shuttle, and the worst, British Airways (BA). Norwegian, on average, flies at 40 passenger-kilometers per litre of jet fuel.

- (a) 3421
- (b) 2341
- (c) 2431
- (d) 4321

- 48 : 1. The Emergency, the real story of the buying and selling of the media began with
- 2. of media organizations began to be chipped away at until it disappeared
  - 3. the advent of liberalization, when the wall dividing the business from the editorial side
  - 4. leaving aside the compromises the majority of media houses made in the 1970s during

- (a) 4132
- (b) 4231
- (c) 3241
- (d) 2314

( 26 ) XMC-201/MSD-205(A)

49. 1. In the Manifesto, we are presented with large social forces, as capital is coming to rule the world and the workers are organizing their resistance to it

2 proletariat or working class and its opponents, contending

3. nationality, and geography have been overturned, or are being overturned.

4. with each other on an international scale, where differences of culture.

(a) 4231

(b) 2431

(c) 1342

(d) 1432

50. 1. In the West, Allied Forces had fought their way through southern Italy as far as Rome.

2. In June 1944 Germany's military position in World War II appeared hopeless.

( 27 ) XMC-201/MSD-205(A)

3. In Britain, the task of amassing men and material for the liberation of northern Europe had been completed.

4. The Red Army was poised to drive the Nazis back through Poland.

5. The situation on the eastern front was catastrophic

(a) 54132

(b) 25413

(c) 24531

(d) 35412