



3. Each of the students (1)/ have submitted (2) /their assignments on time. (3) / No error (4)  
 a) Each of the students (1)/  
 b) have submitted (2) /  
 c) their assignments on time (3)/  
 d) No Error (4)
4. We know it is an extra early start to (1)/ your day, but we are certain (2)/ you too would like to contribute towards this. (3)/ No Error (4)  
 a) We know it is an extra early start to (1)/  
 b) your day, but we are certain (2)/  
 c) you too would like to contribute towards this. (3)/  
 d) No Error (4)
5. If so many catches (1)/had not being dropped (2)/ by our team (3)/we would have won the match (4).  
 a) If so many catches (1)/  
 b) had not being dropped (2)/  
 c) by our team (3)/  
 d) we would have won the match.(4)
6. She was heavily fined (1) / last month (2) / for coming lately. (3) / No Error (4)  
 a) She was heavily fined (1) /  
 b) last month (2) /  
 c) for coming lately. (3) /  
 d) No Error (4)
7. Go up the beach and watch for tourists (1)/ so you could warn anyone (2)/ before they get to the water. (3) No error (4)  
 a) Go up the beach and watch for tourists (1)/  
 b) so you could warn anyone (2)/  
 c) before they get to the water. (3) /  
 d) No error (4)
8. The professor gave us (1)/ a little interesting assignment (2)/ on quantum mechanics. (3)/ No error (4)  
 a) The professor gave us (1)/  
 b) a little interesting assignment(2)/  
 c) on quantum mechanics.(3)/  
 d) No error (4)

9. The number of (1)/ cases of robbery has (2)/ risen this year by (3)/ as many as 50 percent (4). 1 K2 CO1
- The number of (1)/
  - cases of robbery has (2)/
  - risen this year by (3)/
  - as many as 50 percent (4).
10. He was so tired (1) /that he couldn't hardly (2) / keep his eyes open. (3) / No Error(4) 1 K2 CO1
- He was so tired (1) /
  - that he couldn't hardly (2) /
  - keep his eyes open. (3) /
  - No Error(4).
11. What should be the value of \* in  $54325*8$  if the number is divisible by 4? 1 K2 CO2
- 0
  - 2
  - 1
  - 5
12. Which digits should come in place of \* and # if the number  $237*4\#$  is divisible by both 5 and 8? 1 K2 CO2
- 3,0
  - 4,5
  - 1,0
  - 8,0
13. Which of the following numbers is not divisible by 11? 1 K2 CO2
- 1234321
  - 654456
  - 987789
  - 4566545
14. What is the unit digit in the product  $(234)^{112} \times (566)^{91}$ ? 1 K2 CO2
- 6
  - 2
  - 7
  - 1

15. What is the unit digit in  $(12345 \times 67893 \times 112233)$ ?      1    K2   CO2  
a) 0  
b) 5  
c) 2  
d) 8
16. The unit digit in the sum of  $(349)^{56} + (985)^{34}$  is?      1    K2   CO2  
a) 2  
b) 6  
c) 4  
d) 7
17. If  $\log_5(25x) = 3$ , then  $x = ?$       1    K2   CO2  
a) 5  
b) 10  
c) 15  
d) 20
18.  $\log_a(1/a) = ?$       1    K2   CO2  
a) -1  
b) 1  
c) a  
d) 0
19. Simplify:  $\sqrt{72} + \sqrt{18}$       1    K1   CO2  
a) 9  
b) 10  
c) 11  
d) 12
20.  $a : b = 9 : 11$ ,  $b : c = 9 : 11$ . Find  $a : c$ .      1    K2   CO2  
a) 81 : 121  
b) 99 : 121  
c) 91 : 81  
d) 81 : 99

21. The average of 5 numbers is 27. If one number is excluded, the average becomes 25. Find the excluded number.  
a) 30  
b) 35  
c) 40  
d) 45
22. The average age of 30 students is 10 years. If the teacher's age is included, the average becomes 11 years. Find the age of the teacher.  
a) 30  
b) 40  
c) 41  
d) 51
23. The average of 20 numbers is 18. If the average of the first 10 numbers is 16, what is the average of the last 10 numbers?  
a) 19  
b) 20  
c) 21  
d) 22
24. The average of 9 numbers is 63. If each number is increased by 7, what will be the new average?  
a) 63  
b) 64  
c) 70  
d) 71
25. The average of 5 consecutive natural numbers is 25. What is the largest number?  
a) 25  
b) 26  
c) 27  
d) 28
26. The HCF of 36, 60, and 84 is:  
a) 6  
b) 12  
c) 18  
d) 24

27. The product of two numbers is 216 and their HCF is 6. 1 K2 CO3  
Find their LCM.  
a) 18  
b) 24  
c) 36  
d) 72
28. The LCM of 15, 20, and 30 is: 1 K2 CO3  
a) 60  
b) 90  
c) 120  
d) 150
29. The HCF of  $\frac{2}{3}$  and  $\frac{4}{5}$  is: 1 K2 CO3  
a)  $\frac{2}{15}$   
b)  $\frac{4}{15}$   
c)  $\frac{2}{5}$   
d)  $\frac{1}{5}$
30. The product of two numbers is 6912 and their HCF is 12. 1 K2 CO3  
Find their LCM.  
a) 288  
b) 576  
c) 526  
d) 6912
31. The ratio of two numbers is 4:7. If the smaller number is 36, find the larger number. 1 K3 CO4  
a) 63  
b) 64  
c) 65  
d) 66
32. The ratio of two numbers is 6:11. If their difference is 25, find the smaller number. 1 K3 CO4  
a) 30  
b) 35  
c) 40  
d) 45

33. The ratio of the present ages of A and B is 5:7. Five years hence, the ratio will be 6:8. Find A's age. 1 K3 CO4
- a) 25
  - b) 30
  - c) 35
  - d) 40
34. The ratio of incomes of A and B is 7:9. If A earns 3500, find B's income. 1 K3 CO4
- a) 4000
  - b) 4500
  - c) 5000
  - d) 5500
35. Two numbers are in the ratio 5:8. If their difference is 36, find the smaller number. 1 K3 CO4
- a) 40
  - b) 45
  - c) 50
  - d) 55
36. A sum of 3600 is divided among 3 persons in the ratio 2:3:4. Find the share of the second person. 1 K3 CO4
- a) 900
  - b) 1200
  - c) 1100
  - d) 1000
37. Divide 225 in the ratio 2:5:8. 1 K3 CO4
- a) 25, 50, 150
  - b) 30, 75, 120
  - c) 35, 65, 125
  - d) 40, 70, 115
38. A and B share money in the ratio 7:9. If A gets 350 more than B, find B's share. 1 K3 CO4
- a) 3150
  - b) 3500
  - c) 3600
  - d) 3700

39. The ratio of the ages of A and B is 3:4. After 4 years, the sum of their ages will be 56. Find A's present age. 1 K3 CO4
- 20
  - 21
  - 22
  - 23
40. If the ratio of Anjana's income to Baani's income is 5 : 4 and the ratio of their expenditures is 3 : 2. If both Anjana and Baani save 2000 each, what is Baani's income? 1 K3 CO4
- 3000
  - 4000
  - 5000
  - 6000
41. Samar, who is the brother-in-law of Nivedha, is the son-in-law of Hari. Akshaya only sister of Nivedha. How Hari is related to Nivedha? 1 K4 CO5
- Nephew
  - Husband
  - Daughter
  - Father
42. **Syllogism: Statements:** 1 K4 CO5  
 (I) No tree is a flower.  
 (II) Some trees are fruits  
**Conclusions:**  
 (I) Fruits that are trees are not flowers  
 (II) No fruit is a flower.  
  - The only conclusion I follow
  - Only conclusion II follows
  - Either conclusion I or II follows
  - Neither conclusion I nor II follows
43. 115, 119, 128, 153, ?, 323 1 K3 CO5
- 200
  - 202
  - 206
  - 208

44. If BAG = 71, then VICE = ? 1 K3 CO5  
 a) 69  
 b) 70  
 c) 75  
 d) 90
45. A is the mother of B. C is the father of B. C has 3 children. On the basis of this information, find out which of the following relations is correct ? 1 K4 CO5  
 a) C has three sons  
 b) C has three daughters  
 c) B is the son  
 d) Cannot be determined
46. In a certain code, 'GONE' is written as 5 % 2 # and 'MEDAL' is written as 4 # 3 \$ @, then how will 'GOLD' be written in that code? 1 K4 CO5  
 a) 5 @ % 3  
 b) 5 % @ 3  
 c) 5 # @ 3  
 d) 5 % # 3
47. In each of the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it. Choose the correct alternative. 1 K3 CO5  
 m c \_ m \_ a \_ c a \_ c a \_ c \_ m c  
 a) acmma  
 b) camcam  
 c) aaacmm  
 d) acmmca
48. Pointing to a photograph, a lady tells Balaji, "I am the only daughter of this lady and her son is your maternal uncle," How is the speaker related to Balaji father? 1 K3 CO5  
 a) Wife  
 b) Sister-in-law  
 c) Daughter  
 d) Mother

49. 15, 21, 39, 77, 143, ? 1 K3 CO5  
 a) 243  
 b) 240  
 c) 253  
 d) 245
50. Syllogism: 1 K4 CO5  
 Statements:  
 Only first divisioners are admitted.  
 Ram is a first divisioner.
- Conclusions:  
 1. Ram is admitted.  
 2. Only Ram is admitted.
- a) If only conclusion 1 follows  
 b) If only conclusion 2 follows  
 c) If either 1 or 2 follows  
 d) If both 1 and 2 follows

**PART – B**

Answer ALL Questions

(5 x 4 = 20 marks)

Q.No.	Questions	Marks	KL	CO
51. a) i.	If the 5th term of an AP is 12 and the 12th term is 33, find the common difference.	2	K3	CO2
ii.	Find the sum of first 12 terms of the AP: 3, 7, 11, .....	2		
	(OR)			
b) i.	The 8th term of a GP is 192 and the 5th term is 24. Find the first term.	2	K3	CO2
ii.	In a GP, the 3rd term is 12 and the 6th term is 96. Find the first term.	2		

52. a) i. The average monthly salary of 20 employees in an organization is Rs. 1500. If the manager's monthly salary is added, then the average monthly salary is increased by Rs. 100. What is the manager's monthly salary? 2 K3 CO3
- ii. The average of a group of 15 members initially increases from 60 kg to 65 kg when A, B and C join the group the weight of A, B and C are in the ratio 3:4:2. What is the difference between weight of A and C. 2

(OR)

- b) i. The H.C.F. of two numbers is 11 and their L.C.M. is 7700. If one of the numbers is 275, then what is the other number? 2 K3 CO3
- ii. What will be the least number which when doubled will be exactly divisible by 12, 18, 21 and 30? 2

53. a) i. If  $A = B/4$  and  $B = C/2$ , then find the value of  $A : B : C$ ? 2 K2 CO4  
2 K2
- ii. Calculate the 3rd proportional to 15 and 30. 2

(OR)

- b) If  $P : Q = 8 : 15$ ,  $Q : R = 5 : 8$  and  $R : S = 4 : 5$ , then  $P : S$  is equal to? 4 K2 CO4

54. a) Identify which no in the series is wrong for the given below: 4 K3 CO4  
21, 23, 73, 364, 2605, 23455

(OR)

- b) Direction: (i-iv). Study the following information to answer the given questions: 4 K4 CO5  
In a certain code  
"new banking systems" is coded as "ss tp na".  
"officer in uniform" is coded as "or mu at".  
"new bank officer" is coded as "or bk na" and  
"systems in bank" is coded as "bk at ss"

- i) What does the code "bk" stand for?
- ii) What will the code "ss mu" stand for?
- iii) How will "new officer" be coded?
- iv) How will "bank officer in uniform" be coded?

55. a) **Directions: (i & ii):** Study the following letters and their corresponding digits code followed by certain conditions of coding and then answer the questions. 4 K4 CO5

<b>Letters</b>	<b>P</b>	<b>N</b>	<b>A</b>	<b>J</b>	<b>I</b>	<b>R</b>	<b>E</b>	<b>B</b>	<b>U</b>	<b>K</b>
<b>Digits/Codes</b>	<b>5</b>	<b>3</b>	<b>9</b>	<b>1</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>8</b>

Conditions:

(I) If both the first and the last letters in the group are vowels, both should be coded as \$.

(II) If both the first and the last letters in the group are consonants, both should be coded as #.

- i) KUNAJB
- ii) EBNAPI

(OR)

- b) i) In a certain code language, JAIL is coded as 304, and LAWN is coded as 232. What is the code for NAVY in that code Language? 4 K4 CO5
- ii) Read the following information carefully and answer the question which follow:  
 If 'A x B' means 'A is father of B'.  
 If 'A + B' means 'A is wife of B'.  
 If 'A / B' means 'A is daughter of B'.  
 If 'A - B' means 'A is son of B'.  
 How is L related to Q in the expression 'L / M x Q - P / Q'?

PART – C

Answer ALL Questions

(2 x 15 = 30 marks)

Q.No.	Questions	Marks	KL	CO
56. a)	<p>Write about a festival you celebrated with friends or family. Use different kinds of adjectives (distributive, possessive, interrogative). Include conditional sentences of type 0 and type 1. Add at least 3 different types of conjunctions. Make sure your subject-verb agreement is accurate throughout.</p>	15	K3	CO1
	(OR)			
b)	<p>Compose a passage addressing the provided topic. Ensure the paragraph comprises at least 130 words but does not surpass 200 words. <b>“Artificial Intelligence: A Boon or a Threat to Humanity.”</b> Use different kinds of adverbs like conjunctive adverb, adverbs of frequency, manner. Add at least 3 different types of conjunctions Include conditional sentences of type 1 and type 2. Add at least 3 different types of adjectives. Make sure your passage contains compound and indefinite subjects, and that subject-verb agreement is accurate throughout.</p>	15	K5	CO1

57. a) i) 12, 6, 15, 67.5, ?, 3729.375

15 K4 CO5

ii) Find out your conclusion and interpret it either Venn diagram or Rules based. Statements:

Some plates are knives.

Some knives are bottles.

Many bottles are bowls.

Conclusions

I. Some plates are bowls.

II. Not a single plate is bowl.

A. If only Conclusion I Follows.

B. If only Conclusion II Follows.

C. If both the conclusion Follows

D. If Either Conclusion I or II Follows.

iii) Directions: (i-v)

In each question below, is given a group of letters followed by four combinations of digits/symbols.

Letter	B	A	D	E	F	H	J	K	M	I	U	O	W	F	P
Digit/ Symbol	6	\$	7	8	#	1	2	*	%	3	©	4	9	@	5
Code															

I) If the first letter is a vowel and the last letter is a consonant, their codes are to be interchanged.

II) If both the first and the last letters are consonants, both are to be coded as 'δ'.

III) If the first letter is a consonant and the last letter is a vowel, both are to be coded as the code for the vowel.

i) Decode this JMEIUD using the above-given language?

ii) Decode this DMEAKJ using the above-given language?

iii) Decode this IBHWPO using the above-given language?

iv) Decode this EKFDUH using the above-given language?

v) Decode this UKPDMI using the above-given language?

(OR)

b) Direction: (i-v)

15 K4 CO5

In a family of 7 persons, there are only 3 females and three married couples. Each child has both the parents alive. The family members – A, B, C, D, E, F and G spent certain amounts in a month.

B is the only son of G, who spent the third highest amount. A is not a female and spent an amount just lower than D's husband. C is the father of two children of different genders one of them is D. E's mother-in-law was the third highest spender. F is the aunt of A and spent the highest amount. The spendings of E were just lower than A's uncle, who spent the fourth highest amount. C spent Rs. 4500, which is the second highest amount to be spent.

- i. How is the second highest spender related to the second lowest spender?
- ii. What could be the possible amount of expenditure done by F?
- iii. If G's son spent Rs. 2450, then what could be the possible amount spent by G?
- iv. Four of the following five are alike in a certain way and thus form a group. Which of the following does not belong to the group?
- v. How is the lowest spender related to the highest spender?