Reg. No. : ....

Name : ....

Third Semester B.B.A./B.B.A.(T.T.M.)/B.B.A.(R.T.M.)/B.B.M. Degree
(CBCSS – Supplementary) Examination, November 2022
(2016 – 18 Admissions)
General Course
3A12 BBA/BBA(TTM)/BBA(RTM)/3A11BBM : NUMERICAL SKILLS

Time : 3 Hours

Max. Marks : 40

SECTION – A

Answer the 4 questions. **Each** question carries ½ mark.   (4×½=2)

1. Which of the following two ratios is greater 2 : 5 and 6 : 7 ?

2. Solve $(x - 2) (x + 3) = 0$ for x.

3. Find whether the numbers 12, 18, 26, 39 are in proportion or not ?

4. Which is the smallest composite number ?

SECTION – B

Answer **any 4** questions. **Each** question carries 1 mark.   (4×1=4)

5. Find the weighted average of the values 13, 15, 21, 25, 18 if the respective weights associated with these values are 6, 5, 8, 4, 2.

6. Find the compound interest for Rs. 5,000 for 4 years if interest is payable half yearly at 6% p.a.

7. Find the amount due for a sum of Rs. 350 after 3 years @ 9% interest.

8. Write the determinant of $A = \begin{bmatrix} 2 & -3 \\ 1 & 4 \end{bmatrix}$.

9. Write down all the subsets of the set A = {a, b, c}.

10. Which term of the G.P.: 6, – 12, 24, – 48, ... is 384 ?

SECTION – C

Answer **any 6** questions. **Each** question carries **3** marks. (6×3=18)

11. 17 kg of rice at Rs. 30 per kg is mixed with 3 kg of rice at Rs. 20 per kg. What would be the selling price per kg of the mixture, if a profit of 25% of sales is to be made ?

12. The monthly income of two persons is in the ratio 4 : 5 and their monthly expenditure are in the ratio 7 : 9. If each saves Rs. 50 per month, find their monthly incomes.

13. The interest is compounded continuously in a bank. To get Rs. 100 after three years what should I deposit in the Bank if the Bank rate of interest is 8% per annum ?

14. Solve the quadratic formula $x^2 - 11x + 28 = 0$.

15. Two third of a number increased by 5 equals 27. Find the number.

16. If A = {a, b, c} and B = {1, 2, 3} and C = {3, 5, 7} find :

    i) A∪B∪C

    ii) A∩B∩C

    iii) (A∪B)∩C.

17. In an AP, the ratio of the 2nd term to the 7th term is 1/3. If the 5th term is 11, what is the 15th term ?

18. Solve 2x – y = 5
    3x – 4y = 10.

SECTION – D

Answer **any two** questions. **Each** question carries **8** marks. (2×8=16)

19. Each student in a class of 40, studied at least one of the Languages Malayalam, Hindi and French. 16 studied Malayalam, 22 French, 26 Hindi, 5 studied Malayalam and French, 14 Hindi and French, 2 Malayalam, Hindi and French. Find the number of students who studied Malayalam and Hindi but not French.

20. Find the inverse of A where $A = \begin{pmatrix} 1 & 2 & 1 \\ 2 & -1 & 2 \\ 1 & 1 & -2 \end{pmatrix}$.

21. For the marriage of 2 daughters, Mr. Rajan requires Rs. 40,000 after 4 years and Rs. 75,000 after 6 years from now. How much money he deposits in a bank paying 10% compound interest p.a. ?

_____