6ე   K25FY2397 B

Second Semester FYUGP Management Studies Examination
APRIL 2025 (2024 Admission onwards)
KU2DSCBBA104 (BUSINESS MATHEMATICS)
(DATE OF EXAM: 30-4-2025)

Time : 120 min   Maximum Marks : 70

Part A (Answer any 6 questions. Each carries 3 marks)

1. What is the simple interest on 6,000 for 2 years at 7% per annum?   3

2. What is appreciation?   3

3. What is depreciation?   3

4. How to calculate the n th term of AP?   3

5. How to calculate the sum of n terms of an AP?   3

6. What is Geometric Progression?   3

7. What do you mean by equal matrices?   3

8. Construct a 2x2 matrix whose elements are given by $a_{ij} = i/j$ 3

Part B (Answer any 4 questions. Each carries 6 marks)

9. A person deposits Rs 12,000 in a bank at 7% per annum compound interest for 5 years. Calculate the total amount.   6

10. Calculate the compound interest on Rs 20,000 for 1.5 years at 10% per annum, compounded half- yearly.   6

11. The total marks obtained by two students are in the ratio 3:4. If the first student scored 270 marks, find the marks of the second student.   6

12. Find the number of terms in the sequence 72,67,62....................   6

13. Find the 7 th term of the geometric sequence 1,-3,9,-27   6

14. Find the 1 st term of the GP whose 5 th term is 3 and common ratio ½.   6

Part C (Answer any 2 question(s). Each carries 14 marks)

15. Solve $x-y = 2. 2x^2 + 5y^2 = 23$ 14

16. In a perfect competition, the demand curve of a commodity is $D = 19-3p-p^2$ and supply curve is S = 5p - 1. For equilibrium D = S. Find equilibrium price and equilibrium quantity.   14

17. Explain various types of matrices.   14