

Second Semester FYUGP Degree (Sup/Imp) Examination

April 2026

KU2DSCBBA104 - BUSINESS MATHEMATICS

2024 Admission onwards

Time : 2 hours

Maximum Marks : 70

Section A

Answer any 6 questions. Each carry 3 marks.

1. How to calculate the sum of n terms of an AP?
2. How to calculate the n th term of AP?
3. How to calculate simple interest?
4. What is appreciation?
5. What is depreciation?
6. What do you mean by equal matrices?
7. If a matrix has 24 elements, what are the possible orders it can have?
8. Find the determinant of

$$A = \begin{bmatrix} 3 \end{bmatrix}$$

Section B

Answer any 4 questions. Each carry 6 marks.

9. A bank offers 7% per annum simple interest. If Riya invests Rs 18,000 for 5 years, what will be the total amount she gets?
10. Rohan deposits Rs 10,000 in a bank at 8% per annum for 2 years. How much compound interest does he earn?
11. The ratio of apples to oranges in a basket is 4:7. If there are 28 oranges, how many apples are there?
- 12.

$$A = \begin{bmatrix} 5 & -6 & -1 \\ 7 & 3 & 8 \end{bmatrix} \quad B = \begin{bmatrix} 2 & 4 & 1 \\ 0 & -3 & 9 \end{bmatrix}$$

find out $A - B$

1

13. Find the rank of the matrix

$$A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$$

14. If

$$A = \begin{bmatrix} 2 & -1 & -2 \\ 0 & 2 & -1 \\ 3 & -5 & 0 \end{bmatrix}$$

find $|A|$

Section C

Answer any 2 questions. Each carry 14 marks.

15. Solve $x + y = 12$, $x^2 + y^2 = 74$
16. A) A man sells 7 horses and 8 cows at Rs. 2940 and 5 horses and 6 cows at Rs. 2150. What is the selling price of each.
B) Find the equilibrium price and quantity exchanged at the equilibrium price if supply and demand function are given by $S = 20 + 3P$, $D = 160 - 2P$ where 'P' is the price charged. For equilibrium $S = D$.
17. A) Find the first term of the GP whose 8th term is 243 and 5th term is 9.
B) Find the first term of the AP whose 53rd term is -58.5 and 3rd term is 66.5.