BHARTIYA VIDYA MANDIR (BVM) COLLEGE OF MGMT. EDUCATION

QUESTION BANK

BCA-VI SEM (JU)

601 – Numerical Methods

Q.1 Solve the following equation Using with Gauss elimination Method
$4x+y+3z=11$
$3x+4y+2z=11$
$2x+3y+z=7$

Q.2 Solve the following equation Using with Gauss Jordan Method
$x+2y+z=8$
$2x+3y+4z=20$
$4x+3y+2z=16$

Q.3 What do you mean by the pivoting ?

Q.4 Solve the following equation Using with Jacobi iterations Method
$2x+y+z=5$
$3x+5y+2z=15$
$2x+y+4z=8$

Q.5 Solve the following equation Using with Gauss Seidel iteration Method
$27x+6y-z=85$
$6x+15y+2z=72$
$x+y+54z=110$

Q.6 Explain the following are
(a) Forward Differences
(b) Backward Differences
(c) Lagrange's Interpolation formula.

Q.7 The population of a town in the decennial census was as given below.Estimate the population
for the year 1995

Year :x	1891	1901	1911	1921	1931
Population : y (in thousands)	46	66	81	93	101

Q.8. Generate a difference table the values of y are consecutive terms of a series of which the number21.6 is he 6th term. Find the first and tenth terms of the series

x	3	4	5	6	7	8	9
y	2.7	6.4	12.5	21.6	34.3	51.2	72.9

Q.9 Explain the Central and Averaging Operators and their relationships.

Q.10 What do you mean by the Simultaneous linear equations? Explain with example.

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