

BHARTIYA VIDYA MANDIR (BVM) COLLEGE OF MGMT. EDUCATION
QUESTION BANK

MCA- II sem

204 - Computer Oriented Numerical & Statistical Methods

Note: Questions of 1.5 Marks.

- Q.1 Pivoting
- Q.2 Forward Differences
- Q.3 Backward Differences
- Q.4 Lagrange's Interpolation formula.

Note: Questions of 2 Marks

- Q.1 Explain the Central and Averaging Operators and their relationships.
- Q.2 What do you mean by the Simultaneous linear equations? Explain with example.
- Q.3 Explain the Simpson's 1/3rd with example.

Note: Questions of 3 Marks.

- 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 Solve the following equation Using with Jacobi iterations Method

$$2x+y+z=5$$

$$3x+5y+2z=15$$

$$2x+y+4z=8$$

- Q.4 Solve the following equation Using with Gauss Seidel iteration Method

$$27x+6y-z=85$$

$$6x+15y+2z=72$$

$$x+y+54z=110$$

1

- Q.5 Evaluate $\int_0^1 \frac{1}{(1+x)} dx$ correct to three decimal places using with simpson's 1/3 rules

0

1

- Q.6 Evaluate $\int_0^1 \sqrt{(1-x^2)} dx$ correct to three decimal places using with trapezoidal rules

0

- Q.7 Explain the Gauss's Central Difference Formula with Example.

- Q.8 Explain the Newton's Formula For interpolation with example.