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Examination May-2014
COMPUTER ORIENTED NUMERICAL METHODS
Subject Code : (BS - 208)
Paper ID:B0416

Time : 03 Hrs.   **Max. Marks:60**

Note : Section A compulsory. Section B consists of 6Qs, attempt any four. Each carriers 10 marks.

SECTION–A   (2x10=20)

1.   a)   Write about inherent, truncation Errors

      b)   Write 2-3 lines on floating point numbers.

      c)   Write 2-3 lines on Binary representations of numbers.

      d)   Difference between Lagrange Interpolation and Difference tables.

      e)   Which method do you think is the best for finding solution in equations.

      f)   Give comparison of Integration formula

      g)   Define Simpson's $\frac{1}{3}$ rd rule

      h)   Give formula for Simpson's $\frac{3}{8}$ th rule

      i)   Difference between differentiation and Integration

      j)   Define Spline Interpolation.

SECTION – B

                                                            4x10=40

2.   From the table given below for what values of x, y is minimum. Also find the value of y.

x	3	4	5	6	7	8
y	.205	.240	.259	.262	.250	.224

3.   Find the solution of following equations by elementary row operations :

$x - 2y + 3z = 4$

$2x + y - 3z = 5$

$-x + y + 2z = 3$

4.   Evalue (i) $\Delta^2 Cos2x$

           (ii) $\Delta^n(e^x)$

5.   Evaluate $\sqrt{28}$ to four decimal places by Newton's iterative method.

6.   Give an algorithim for the development of Regula-falsi method.

7.   Given the following table.

x	1.2	2.1	2.8	4.1	4.9	6.2
y	4.2	6.8	9.8	13.4	15.5	19.6

Find the value of x corresponding to y = 12 using Lagrange's technique.

…………End………