March-2015

CODE:4315 SEM-V EXAMINATION - MARCH/.

M-504: ADVANCED NUMERICAL METHODS

TIME: 2:30 HOURS TOTAL MARKS:70

INSTRUCTIONS: (1) All questions are compulsory.
(2) Each question carries equal marks.

Q.1	A	Discuss : Muller's Method	[07]
	B	Discuss : Lin-Bairstows Method	[07]
Q.1	A	Discuss : Ramanujan's Method	[07]
	B	Apply the quotient difference method to obtain the approximate roots of the Equation $x^3 - x^2 - 2x + 1 = 0$	[07]
Q.2	A	Discuss : Graeffe's root squaring's Method	[07]
	B	Using Ramanujan's Method obtain the first six convergent of the equation $x+x^2=1$	[07]
Q.2	A	Discuss : Horner's Method	[07]
	B	Discuss : Crout's Method	[07]
Q.3	A	Discuss : Gauss Elimination's Method	[07]
	B	Solve $\begin{bmatrix} 1 & 2 & 3 \\ 3 & 2 & 1 \\ 2 & 1 & 3 \end{bmatrix}$ using inverse of crout's method	[07]
Q.3	A	Discuss : Gauss Jordan's Method	[07]
	B	Discuss : Jacobi Method of Iteration	[07]
Q.4	A	Discuss : Relaxation Method	[07]
	B	Solve by Gauss seidel method the following system of equation $28x+4y-z=32$, $x+3y+10z=24$ and $2x+17y+4z=35$	[07]
Q.4	A	Solve by relaxation method, $9x-y++2z=9$, $X+10y-2z=15$ and $2x-2y-13z=-17$	[07]
	B	Discuss : Gauss seidel Iteration Method	[07]
Q.5	A	Discuss : Relation between roots and co-efficient	[07]
	B	Solve equation $x^3 + 6x + 20 = 0$ of which $1-3i$ is a root.	[07]
Q.5	A	Discuss transformation of equation	[07]
	B	Discuss multiples roots.	[07]