CODE:4315 SEM-V EXAMINATION Nov – 2014

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 : Ramanujan's Method	[07]
	B	Use Muller's method find root of equation x^3-x-1=0.	[07]
Q.1	A	Discuss : Graffee's root squaring Method	[07]
	B	Discuss : the quotient difference method	[07]
Q.2	A	Discuss : Lin-Bairstows Method	[07]
	B	Using Ramanujan's Method obtain the first six convergent of the equation $x+x^3=1$	[07]
Q.2	A	Solve the equation x^3-6x-13=0 using Horner's Method	[07]
	B	Discuss : Gauss Elimination's Method	[07]
Q.3	A	Discuss : Gauss Jordan's Method	[07]
	B	Discuss : Horner's Method	[07]
Q.3	A	Discuss: Method factorization.	[07]
	B	Solve $\begin{bmatrix} -2 & 4 & 8 \\ -4 & 18-6 & \\ -6 & 2-20 & \end{bmatrix}$ using Gauss Elimination's Method	[07]
Q.4	A	Discuss : Jacobi Method of Iteration	[07]
	B	Discuss : Crout's Method	[07]
Q.4	A	Discuss : Relaxation Method	[07]
	B	Discuss: Equation with real co-efficient and imaginary roots.	[07]
Q.5	A	Solve Equation x^3-9x^2+26x-24=0 given that the roots are in arithmetic progression	[07]
	B	Discuss: transformation of equation.	[07]
Q.5	A	Discuss multiples roots.	[07]
	B	If a, b and c are the roots of x^3+px+r=0, form the equation whose roots are $(b-c)^2$, $(c-a)^2$,$(a-b)^2$.	[07]