

Contentwise 'Blue print' Applied Maths –I (FEC101)

Progr. Name and Code: F.E (R–2012 Syllabus), Max marks: 80

Course Name and Code: Applied Maths-I and C 101, Time : 3hrs

Topic No.	Unit No.	Unit Title**	Unitwise Marks	Topicwise Marks
01	1.1	Complex Numbers-Powers and Roots	06	29
	1.2	Complex Numbers-Circular Functions	09	
	1.3	Separation of real and imaginary	08	
	1.4	Expansion of sine and cosine etc.	06	
02	2.1	Types of Matrices	16	30
	2.2	Matrices- Linear algebraic equation	14	
03	3.1	Successive Differentiation	12	29
	3.2	Partial Differentiation	09	
	3.3	Euler's Theorem	08	
04	4.1	Partial Differentiation: Maxima & Minima	15	32
	4.2	Taylor's Theorem	09	
	4.3	Fitting of Curves	08	
	Total			120

(**Unit titles are written in brief)

Blueprint of question paper AM- I (R 2012 Syllabus)

1	a	1.2 (03 marks) Relation between circular and hyperbolic function
	b	3.2 (03 marks) Problems on basic partial derivatives
	c	4.1 (03 marks) Jacobians
	d	4.2 (03 marks) Expansion
	e	2.1 (04 marks) Properties of Matrices
	f	3.1(04 marks) Problems on std formula of successive derivatives
2	a	1.1 (06 marks) Complex Numbers-Powers and Roots
	b	2.1(06 marks) Matrices PAQ/ normal form
	c	3.3(08 marks) Euler's theorem with deduction
3	a	2.1(06 marks) linear homo and non homogeneous equations.
	b	4.1(06 marks) maxima and minima/ Lagranges method
	c	1.3(08 marks) Separation of real and imaginary parts
4	a	4.1(06 marks) Jacobian of implicit functions/ partial derivative of implicit functions using jacobian
	b	1.2 (06 marks) Logarithm of complex numbers
	c	2.2 (08marks) Matrices- Linear algebraic equation
5	a	1.4(06 marks) Expansion of sine and cosine etc.
	b	4.2(06 marks) Expansion of series / indeterminate forms
	c	3.1(08 marks) Problem's on Leibnitz's theorem
6	a	2.1/2.2 (06 marks) Linear independent, dependent/ from 2.2
	b	3.2 (06 marks) Composite /implicit functions
	c	4.3(08 marks) Fitting of curves/ Regression

NOTE: 1) Each question of 8 marks may be converted into two questions of 4 marks each

2) NO question on correlation coefficient is expected.

3) Programmable calculator are NOT allowed.

Weightage wise ‘Blue–print’ Applied Maths –I (FEC 101)

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Topic NO.	Unit No.	Weightage	Q1 Comp	Q2 Op	Q3 Op	Q4 Op	Q5 Op	Q6 Op
01	1.1	06		06				
	1.2	09	03			06		
	1.3	08			08			
	1.4	06					06	
02	2.1	16	04	06	06			
	2.2	14				08		06
03	3.1	12	04			08		
	3.2	09	03					06
	3.3	08		08				
04	4.1	15	03		06	06		
	4.2	09	03				06	
	4.3	08						08
	TOTAL	120	20	20	20	20	20	20