Lesson Plan

Name of Faculty : Pooja Rani
Discipline : Common
Semester : 2nd
Subject : App. Math-II
Lesson Plan Duration : 15 Weeks (From January 2018 to April 2018)

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1st	1	Definition of function, Types of function with examples		N.A.
	2	Concept of Limits. Using Direct Substitution Method. Using Factorization Method		N.A.
	3	Rationalization Method to solve limits.		N.A.
	4	Evaluation of Algebraic limits $\lim_{x\to a}\frac{x^n-a^n}{x-a}$ = na^{n-1} And $\lim_{x\to 0}\frac{\sin x}{x}$=1		N.A.
	5	Evaluation of Exponential and Logarithmic functions using limits.		N.A.
2nd	6	Problems of unit 1.1 to solve.		N.A.
	7	Definition of Differentiation of a function with examples.		N.A.
	8	By definition, Differentiation of x^n and e^x .		N.A.
	9	By definition, Differentiation of $\sin x,\ \cos x, \tan x.$		N.A.
	10	Problems of unit 1.2 to solve.		N.A.
3rd	11	Differentiation of sum or difference of functions.		N.A.
	12	Differentiation of product of functions.		N.A.
	13	Differentiation of quotient of functions.		N.A.
	14	Problems of unit 1.3 to solve.		N.A.
	15	Assignment.		N.A.
4th	16	Differentiation of trigonometric functions $\sin x,\ \cos x$,$\tan x$, $\csc x$, $\sec x$, $\cot x$.		N.A.
	17	Differentiation of trigonometric functions $\sin x,\ \cos x, \tan x$, $\csc x$, $\sec x$, $\cot x$.		N.A.
	18	Problems of Differentiation of trigonometric functions to solve.		N.A.
	19	Differentiation of inverse trigonometric functions $\sin^{-1} x$, $\cos^{-1} x$, $\tan^{-1} x$, $\csc^{-1} x$, $\sec^{-1} x$, $\cot^{-1} x$.		N.A.
	20	Differentiation of inverse trigonometric functions $\sin^{-1} x$, $\cos^{-1} x$, $\tan^{-1} x$, $\csc^{-1} x$, $\sec^{-1} x$, $\cot^{-1} x$.		N.A.
5th	21	Problems of Differentiation of inverse trigonometric functions to solve.		N.A.
	22	Differentiation of logarithmic and exponential functions.		N.A.
	23	Differentiation of logarithmic and exponential functions.		N.A.
	24	Problems of Differentiation of logarithmic and exponential functions to solve.		N.A.
	25	Successive Differentiation of functions (up to 2nd order).		N.A.
6th	26	Successive Differentiation of functions (up to 2nd order).		N.A.
	27	Problems of Successive Differentiation to solve.		N.A.
	28	Applications of Differentiation in Velocity of a particle.		N.A.
	29	Applications of Differentiation in Acceleration of a particle.		N.A.
	30	Use of Differentiation in rate of change of length, area and volume.		N.A.

7th	31	Problems of Applications of Differentiation to solve.		N.A.
	32	Assignment.		N.A.
	33	Definition of Maximum and Minimum value of a function, Graphical Representation of Maximum and Minimum value of a function.		N.A.
	34	Maximum and Minimum values by Second Derivative Test.		N.A.
	35	Problems of Maximum and Minimum values to solve.		N.A.
8th	36	Test of unit 1.		N.A.
	37	Definition of Integration, Simple Integration.		N.A.
	38	Problems of Simple Integration to solve.		N.A.
	39	Integration by Substitution Method.		N.A.
	40	Problems of Substitution Method to solve.		N.A.
9th	41	Integration of a function by some special integrals.		N.A.
	42	Problems of some special integrals to solve.		N.A.
	43	Integration By Parts Method.		N.A.
	44	Problems of Integration By Parts Method to solve.		N.A.
	45	Integration using Partial Fractions.		N.A.
10th	46	Problems of Integration using Partial Fractions to solve.		N.A.
	47	Integration using Standard Results.		N.A.
	48	Problems of Integration using Standard Results to solve.		N.A.
	49	Simple Definite Integration.		N.A.
	50	Definite Integration using properties.		N.A.
11th	51	Problems of Simple Definite Integration.		N.A.
	52	Evaluation of $\int_0^{\frac{\pi}{2}} (\sin x)^n \, dx$, $\int_0^{\pi/2} (\cos x)^n \, dx$, $\int_0^{\pi/2} (\sin x)^m (\cos x)^n \, dx$		N.A.
	53	Problems of Definite Integration with given limits to solve.		N.A.
	54	Application of Integration for evaluation of area under a curve and axes.		N.A.
	55	Problems of evaluation of area under a curve and axes to solve.		N.A.
12th	56	Assignment of Unit 2.		N.A.
	57	Numerical Integration by Trapezoidal Rule.		N.A.
	58	Problems of Numerical Integration by Trapezoidal Rule to solve.		N.A.
	59	Numerical Integration by Simpson's Rule.		N.A.
	60	Problems of Numerical Integration by Simpson's Rule to solve.		N.A.
13th	61	Test of Unit 2.		N.A.
	62	Definition, Order, Degree and Linearity of an ordinary differential eq.		N.A.
	63	Problems of an ordinary differential eq. to solve.		N.A.
	64	Measure of Central Tendency: Mean.		N.A.
	65	Measure of Central Tendency: Median.		N.A.
14th	66	Measure of Central Tendency: Mode.		N.A.
	67	Problems of Measure of Central Tendency to solve.		N.A.
	68	Measure of Dispersion: Mean Deviation.		N.A.
	69	Assignment of unit 3 and 4.		N.A.
	70	Problems of Measure of Dispersion: Mean Deviation to solve.		N.A.
15th	71	Measure of Dispersion: Standard Deviation.		N.A.
	72	Problems of Measure of Dispersion: Standard Deviation to solve.		N.A.
	73	Coefficient of rank correlation.		N.A.
	74	Problems of Coefficient of rank correlation to solve.		N.A.
	75	Test of unit 3 and 4.		N.A.