

IES COLLEGE OF TECHNOLOGY , BHOPAL

SUBJECT NAME: Engg. Maths - II
SUBJECT CODE: BE - 301

DATE OF AWARD: 16 /7/2014
DATE OF SUBMISSION: 24 /07/2014

1	Find the Laplace transform of $te^{-2t}\sin 2t$	2008
2	Solve the equation by the transform method: $d^2y/dt^2 - 3dy/dt + 2y = 4t + e^{3t}$ when $y(0) = 1$ and $y'(0) = -1$	2010
3	Find the Inverse Laplace Transform of $1/s^3 - a^3$	2007
4	Find the Laplace Transform of $t^2\sin at$.	2008
5	Solve the equation by the transform method: $d^2y/dt^2 - 3dy/dt + 2y = 4t + e^{3t}$ when $y(0) = 1$ and $y'(0) = -1$	2008

IES COLLEGE OF TECHNOLOGY, BHOPAL
 B.E. (Third Semester) Assignment-I
 (Electrical & Electronics Eng. Branch)
 Electrical Machine- II (EX-302)

Date of issue:

Date of submission: 24/07/14

1	State the Gauss law.	(June 2014)
2	Using Gauss law find the expression for \bar{D} for uniformly charge sphere.	(Dec 2013)
3	If $D = y^2z^3a_x + 2xyz^3a_y + 3xy^2z^2a_z$ pC/m ² in free space (i) Find the total electric flux passing through the surface $x = 3, 0 \leq y \leq 2, 0 \leq z \leq 1$ in a direction away from the origin, (ii) Find E at P(3,2,1), and (iii) Find the total charge contained in an incremental sphere having a radius of $2 \mu\text{m}$ centered at P(3,2,1).	
4	A charged ring of radius 'a' carries a uniform charge distribution. Determine the potential and electric field intensity at any point on the axis.	(Dec 2012)
5	Transform the vector field $w = 10 a_x^- - 8 a_y^- + 6 a_z^-$ to cylindrical co-ordinate at point P (10, - 8, 6).	(Dec 2013)

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**B.E. (Third Semester) Assignment-I
(Electrical & Electronics Engg.Branch)
EI (EX-303)**

Date of issue:16/07/14

Date of submission:24/July/2014

1	Define w.r.t. to instrument: Sensitivity, Precision, Reproducibility, and Sensitivity.	Jan 2012
2	Discuss various types of errors in measurements.	June2012
3	Describe the theory and operation of the Ballistic Galvanometers.	June 2009
4	Describe the theory and operation of the Flux meter.	June 2012
5	Describe the theory and operation of the d'arsonval galvanometer.	June 2012

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EDC-1(EX -304)

Assignment -1

Date of Assign: 16/07/14

Date of Submission:24/07/14

Q.1	. Give the ideal and practical diode equivalent circuit. (+Numerical) [RGTU:2014]	
Q.2	Explain clipping and clamping circuits(Numerical on clamper) [RGTU:2012]	
Q.3	Explain briefly about half wave and full wave rectifier circuit. [RGTU:2012]	
Q.4	What are junction capacitance and diffusion capacitance. What is varactor diode? [RGTU:2012]	
Q.5	Short notes on (i) Tunnel diode (ii) zener diode (iii) LED (iv)schottkey diode.[RGTU:2013]	

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**B.E. (Third Semester) Assignment-I
(Electrical & Electronics Eng. Branch)
Network Analysis (EX-305)**

Date of issue:15.07.14

Date of submission:24.07.14

1	Ques-1 Explain followings: - 1] Circuit & Node 2] Independent & Dependent Source, 3] Unilateral & Bilateral network. (June 2014)
2	Ques-2 Explain the following (1) KVL and KCL (2) Star delta transformation (3) current division principle (Dec 2013)
3	3 Find the current across 2 ohm resistor.(Dec2012)
4	Statement of Superposition theorem with its proof and its limitation? (Dec 2012)
5	For the following graph determine tie set & cutset matrix (Dec 2013)