

IES COLLEGE OF TECHNOLOGY , BHOPAL
ASSIGNMENT #1

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

IES COLLEGE OF TECHNOLOGY, BHOPAL
EC (IIIth SEM) Assignment Paper-1
Computer System Organization (EC-302)

Date of Assignment: 16/07/2014

Submission Date: 24/07/2014

Q.1	Explain Different types of Register related to the CPU; Also explain functionality of special purpose register.
Q.2	Explain different types of addressing modes of registers.
Q.3	Differentiate between RISC & CISC.
Q.4	Explain basic model of computer with subsystem work.
Q.5	What are the no of stages & operations involved in instruction execution.

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Assignment 1

SUB: EI (EC-303)

Date of Assign: 16/07/14

Date of Submission: 24/07/14

1	Describe the different criteria for selection of transducer.	2011
2	What is the difference between Active & Passive transducers? Give construction working & application of strain gauge.	2010
3	Draw and Explain the circuit suitable for low capacitance measurement.	2007,2008,2011
4	A Maxwell's capacitance bridge is used to measure an unknown inductance $R_2=400\Omega$, $R_3=600\Omega$, $R_4=1000\Omega$, $C_4=0.5\mu F$. calculate R & L and also Q factor of coil if frequency 1000Hz.	2007
5	An A.C bridge is in balance with the following constant arm AB, $R=450\Omega$ arm BC, $R=300\Omega$ in series with $C=0.265\mu F$ and arm DC, unknown arm DA, $R=200\Omega$ in series with $L=15.9mH$. freq=1kHz. Find constant of arms CD.	2010,2007

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B.E. (3rd SEM) Assignment Paper-1

Electronic Devices (EC-304)

Date of Assign: 16/07/14

Date of Submission: 24/07/14

1	Describe the different criteria for selection of transducer.	2011
2	What is the difference between Active & Passive transducers? Give construction working & application of strain gauge.	2010
3	Draw and Explain the circuit suitable for low capacitance measurement.	2007,2008,2011
4	A Maxwell's capacitance bridge is used to measure an unknown inductance $R_2=400\Omega$, $R_3=600\Omega$, $R_4=1000\Omega$, $C_4=0.5\mu F$. calculate R & L and also Q factor of coil if frequency 1000Hz.	2007
5	An A.C bridge is in balance with the following constant arm AB, $R=450\Omega$ arm BC, $R=300\Omega$ in series with $C=0.265\mu F$ and arm DC, unknown arm DA, $R=200\Omega$ in series with $L=15.9mH$. freq=1kHz. Find constant of arms CD.	2010,2007

IES COLLEGE OF TECHNOLOGY , BHOPAL

ASSIGNMENT-1

Date of Assign: 16/07/14

Date of Submission: 24/07/14

Department	ELECTRONICS & COMMUNICATION	Session	JULY 2014- DEC 2014
Name of Teacher	JEETENDRA SINGH CHAUHAN	Semester	III
Subject	NETWORK ANALYSIS	Sub. Code	E.C.-305

Ques-1 Explain followings: -

- 1] Circuit & Node.
- 2] Independent & Dependent Source.
- 3] Unilateral & Bilateral network.

Ques-2 Explain the following

- (1) KVL and KCL
- (2) Star delta transformation
- (3) current and division principle

Ques-3 Find the current across 2 ohm resistor.

Ques-4 Explain Dual network with example and Derive the expression for

parallel opposing

$$L_{\text{eff}} = (L_1 L_2 - M^2) / (L_1 + L_2 + 2M)$$

Ques-5 Find the voltage V1, V2, V3.