ASSIGNMENT-1

Course- B.TECH (2nd year/ 3rd sem) **Sub code-EET/EEE-231**

Sub- Philosophy of measurement

Last date of Submission- 06/11/2016

Instruction

1) Write the responses to the assignment in your own handwriting.

2) Submit the responses to your HOD within the due date.

3) Write your name, program and Enrollment number clearly at the top of the page.

Q1.

a) What is measuring instruments? Explain the various terms of measuring system?

b) Explain the electrical measuring instruments in brief?

Q2

a) Explain the instrument transformer and their application in brief?

b) Define the AC bridges in brief with explanation?

ASSIGNMENT-2

Course- B.TECH (2nd year/ 3rd sem) **Sub code- EEE/EET-231**

Sub- Philosophy of measurement

Last date of Submission-06/11/2016

Instruction

1) Write the responses to the assignment in your own handwriting.

2) Submit the responses to your HOD within the due date.

3) Write your name, program and Enrollment number clearly at the top of the page.

Q1

a) Explain the different methods of measuring resistances in brief?

b) What is potentiometer? How many types of potentiometer? Explain it in brief with the applications?

Q2

a) What is the concept of digital measurement? Explain the digital voltmeter in brief?

b) Explain the CRO in brief with suitable examples?

MONAD UNIVERSITY
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Tehsil Hapur (U.P), India
EE Department

Course: B. Tech. EE- 3rd Sem. (Basic System System)-EET-232

Assignment No: 1

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a) Define a signal and also describe the different types of the signals.

b) What is Direct formula (or KM formula) ? Illustrate the use of Direct formula with the help of an example.

Q.2

a) For a continuous time system, the input and output relationship is given by

$$y(t) = t^2 \times (t-1)$$

Determine whether the system is linear.

b) Derive :- i)—Force Voltage Analogy

ii)---Force Current Analogy

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EE Department

Course: B. Tech. EE- 3rd Sem. (Basic System System)-EET-232

Assignment No: 2

Due date of submission: 10.11.2016

Instructions:-

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a) Give a comparison between energy and power signals.

b) What is the region of convergence ? Explain in detail.

Q.2

a) Find a Fourier series to represent $f(x)= x$, from $x = 0$ to 2π.

b) What are initial and final value theorems.

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EE Department

Course: B.Tech. (3rd Sem)- Advance Electronic Circuits-EET-233

Assignment No: 1

Due date of submission: 10.11.2016

Instructions

4. Write the responses to the assignment in your own handwriting.
5. Submit the responses to your HOD within the due date.
6. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a)Explain working and VI- characteristics with suitable diagram of the following;

(i) Light Emitting Diode (LED)

(ii) Photo Diode

(iii) Tunnel Diode

b)Explain Transistor as a switch with circuit diagram and VI- characteristics.

Q.2

a)Draw and explain Series-Shunt Feedback amplifier.

b) Explain in detail R-C phase shift oscillator with suitable diagram.

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EE Department

Course: B. Tech. (3rdSem)-Advance Electronic Circuits-EET-233

Assignment No: 2

Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme and Enrolment No. clearly at the top of this page.

Q.1

a)What is Multiplexer and De-Multiplexer? Draw 16:1 Mux using four 4:1 Mux.

b)What is counter? Compare synchronous and asynchronous counters.

Q.2

a)i) What is Flip-flop? Explain RS Flip- flop.

ii) What is race around condition? Explain the operation of JK flip-flop with truth table.

b) i) Explain Schmitt trigger with diagram.

ii) What is Memory? Classify them. Explain RAM and ROM.

MONAD UNIVERSITY
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EE Department

Course: ETD-234Thermodynamics

Assignment No: 1

Due date of submission: 10/11/2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your Hod within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q.1

a) Prove that the polytropic specific heat, C_n is given by equation

$C_n=C_V$ (n-Ɣ/n-1)* work done

b) 10 kg of air is heated at constant pressure from a temperature of 100^0c to 200^0c. Calculate the heat added during the process and also the change in internal energy. Take gas constant R 0.287 KJ/KG and ratio of specific heats,Ɣ=1.4

Q.2

a) State the limitations of first law of thermodynamics and explain the second law. Also state the significance of Carnot cycle and Carnot engine in thermodynamics.

b) A reversible engine takes in 4800 kJ of heat from a reservoir at 800 k per minute and develops 20 kWpower. Engine rejects heat to two reservoirs at 300 K and 360K. Determine the heat rejected to each sink in kj/min.

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EE Department

Course: ETD -234 THERMODYNAMICS

Assignment No: 2

Due date of submission: 10/11/2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within due date.
3. Write your name, programme, and Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q. 1

a. Prove that entropy of an isolated system always increases?

b. Is it possible to convert one form of work energy into another form of work energy completely by any device? If not why?

Q.2

a. Explain critical point and explain its significance. State critical pressure and temperature for water vapor

b. Describe the operating principles of a four stroke diesel engine label various parts with their function?

Course: Industrial Sociology

Program:B.Tech III Sem(All Branch)

Submission Date: 05 November 2016

Instructions:

1. **Write the assignment in your own handwriting.**
2. **Submit assignment to your concerned faculty (Dr. Soma Das) within given time.**
3. **Write your name,programme, course, roll no. and enrollment number clearly at the separate sheet.**

Assignment No: 1

1.

(a) Discuss concept of industrialization.

(b) Define the factory System.

2.

(a) Discuss various scope of Industrial Sociology.

(b) Make a comparison between Industrial Sociology and Economics.

Assignment No: 2

3.

(a) Define Indian Industrial Policy 1948.

(b) Describe 1956 Industrial Policy Resolution.

4.

(a) Describe Grievance Handling Procedure.

(b) Explain Bipartite andTripartite Agreement.

COURSE: - **EEM-236 ENGINEERIENG MATHEMATICS-III**

Assignment No-1

Date of submission:-

Instructions

a) Write the response to the assignment in your own handwriting.
b) Submit the response to your HoD within the due date.
c) Write your name, Programme and Enrolment No. clearly at the top of the page.

Q.1

a) If $f(z)$ is a harmonic function of z, show that

$$\left\{\frac{\partial}{\partial x}|f(z)|\right\}^2+\left\{\frac{\partial}{\partial y}|f(x)|\right\}^2=|f'(z)|^2$$

b) Use residue calculus to evaluate the following integral.

$$\int_0^{2\pi}\frac{1}{5-4\sin\theta}d\theta$$

Q.2

a) By contour integration, prove that $\int_0^x \frac{\sin mx}{x}dx=\frac{\pi}{2}$

b) fit a straight line to the following data

X	0	1	2	3	4
Y	1.0	2.9	4.8	6.7	8.6

COURSE: - **EEM-236 ENGINEERIENG MATHEMATICS-III**

Assignment No-2

Date of submission:-

Instructions

d) Write the response to the assignment in your own handwriting.
e) Submit the response to your HoD within the due date.
f) Write your name, Programme and Enrolment No. clearly at the top of the page.

Q.1

a) Prove $\Delta\nabla = \Delta - \nabla$

b) find the root of $(17)^{\frac{1}{3}}$ correct upto three decimal places

Q.2

a) If θ be the acute angle between to the two regression lines in the case of two variable x and y. Show that

$$\tan\theta = \frac{1-r^2}{r}\frac{\sigma_x\sigma_y}{\sigma_x^{\,2}+\sigma_y^{\,2}}$$

b) A sample of 100 dry cells tested to find the length of life produced the following results: $\bar{x}$ = 12 hours, σ = 3 hours

Assuming the data to be normally distributed, what percentage ofbattery cells are expected to have life-

(i) More than 15 hours

(ii) Less than 6 hours

(iii) Between 10 and 14 hours?