

Sai Nath University

Assignment For B.TECH in Electrical Engineering 5st Sem.

The Assignment will consist of two parts, A and B. Part A will have 5 short answer questions(40-60 words) of 4 marks each. Part B will have 2 long answer questions of 10 marks each

All questions are compulsory.

These Assignments should be completed and submitted in written form by the student to his/her respective Faculty/ Examiners. Assignment Submission Dates are:

➤ Nov-17

List Of Suggested Questions

The list of suggested questions are for students to practice. Although optional, we recommend that students solve these questions, as they will help them in preparing for exams as well as in clearing the important concepts of the subject.

List of Practical and suggested practical's

The list of practical's should be done by the students in their Lab Sessions. These are the basic practical's, which each student should be able to do himself independently. While the list of suggested practicals are optional, but it is recommended that students should perform those practical so as to have a thorough knowledge of the subject

Education Delivery Schedule (EDS)

As per University Semester scheme, the minimum contact hours of each paper has been Divided into two hours theory and practical class.

The faculty will maintain this attendance paper wise for his/her batch.

Subject Code**Subject Name****BTEE 501****Computer Organization****BTEE -502****Control System****BTEE-503****Power Systems****BTEE -504****Electrical Measurement - II****BTEE 505****Advanced Electrical Machines**



SAI NATH UNIVERSITY

Cover page of Assignment

ID NUMBER

NAME

COURSE **B.Tech**.....

STREAM Electrical.....

SEM 5ST

SUBJECT CODE

SUBJECT NAME

Assignments will be completed by the Student in his/her own handwriting.

BTEE 501
Computer Organization
Part A

1. What is a stack frame? Explain its use in subroutines.
2. What is an interrupt? Explain its concepts and the hardware used to realize it.
3. Calculate the average access time experienced by a processor if cache hit rate is 0.88. miss penalty is 0.015 milliseconds and cache access time is 10 microseconds.
4. Explain the design of a 4-bit carry - look-ahead adder.
5. Draw the circuit diagram for binary division. Explain the non-restoring division algorithm with suitable example.

Part B

1. With a general block diagram, explain the functions of each of the processor registers.
2. Highlighting important technological features and advances, explain the evolution of computer over different generations.

BTEE 502
Control System

Part A

1. List the advantages of Closed loop System?
2. What is Block diagram? What are its basic components?
3. How to convert Mechanical system into a closed loop system.
4. What is a steady state error?
5. Give the specifications used in frequency domain analysis.

Part B

1. What are Constant M and N circles?
2. What is dominant pole?

BTEE-503
Power Systems

Part A

1. Write equation for converting the p.u impedance expressed in one base to other base.
2. Define steady state stability limit.
3. Explain bus classification in power flow analysis with their known and known quantities.
4. What is the need for acceleration factor?
5. Write equations to determine sequence components for unbalanced system of currents.

Part B

1. Draw the equivalent sequence network diagram for a single phase to ground fault in a power system.
2. Write the swing – equation and explain the term involved in it.

BTEE-504
Electrical Measurement - II

Part A

1. Explain why PMMC instruments are the most widely used instruments. Discuss their advantage and disadvantage.
2. Explain why electrodynamicometer type of instruments can be used both on ac and dc?
Why are these instruments used as transfer instruments?

3. Explain comparison between CTs and PTs.
4. What is a volt-ratio box? Explain its application with example.
5. Explain the reasons why a separate “standard cell dial circuit” is provided in modern dc potentiometers.

Part B

1. Why is it preferable in bridge circuits, that the equations of balance are independent of frequency? Explain.
2. Explain Guard-wise method for high resistance measurement.

BTEE-505 Advanced Electrical Machines Part A

1. Write a brief note on double cage rotor induction motors.
2. Explain the speed control of three phase induction motor by pole changing.
3. Explain the rotor rheostat control of 3 phase slip ring induction motor.
4. Explain the operation of shaded pole induction motor with neat diagram.
5. Explain the principle and operation of AC series motor.

Part B

1. Draw the equivalent circuit and pharos diagram of a synchronous motor.
2. Explain the significance of V and inverted V curves.