Sai Nath University

Assignment For B.TECH in Mechanical 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
BTME 501	**Metal Cutting and Tool Design**
BTME -502	**Control System**
BTME-503	**Computer Graphics**
BTME -504	**CNC Programming**
BTME 505	**Operation Research**

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Cover page of Assignment

ID NUMBER …….

NAME …… ……

COURSE **B.Tech**……

STREAM Mechanical……

SEM 5ST ……..

SUBJECT CODE ……..

SUBJECT NAME ……..

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

BTME 501
Metal Cutting and Tool Design
Part A

1. Name the factors that contribute to the formation of segmental chips.
2. Why two sets of guide ways are required in lathe machine.
3. Why reaming operation is performed.
4. Explain the relative characteristics of climb milling and up milling.
5. How are the grit size and surface finis

Part B

1. Explain any one milling fixture with neat sketch
2. Describe the following tool positioning systems:

   (a) Point to point system (b) Straight line system (c) Contouring system

BTME 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?

BTME-503
Computer Graphics

Part A

1. Write down any two line attributes
2. Differentiate window and view port
3. What are spline curves?
4. Define quadric surfaces>
5. What is animation?

Part B

1. Write down and explain the midpoint circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the centre of the circle

2. Differentiate parallel and perspective projections and derive their projection matrices.

BTME-504
CNC Programming

Part A

1. Define numeraical control machine
2. What is NC part programming?
3. What is APT language?
4. What is CNC?
5. What is meant by machining centre?

Part B

1. How the heat effect on the machine bed, tool holder can be taken care?
2. Explain the term “stick-up”

BTME-505
Operation Research
Part A

1. Briefly describe the steps for solving a Transportation Problem.
2. Write short note on two person zero sums game.
3. What do you mean by crashing? Write two advantages.
4. What are the basic characteristics of a queuing system.
5. What is the importance of Poisson and Exponential distribution in Queuing theory.

Part B

1. Draw a flowchart for the computational procedure for a LPP using simplex method.
2. Explain any three applications of LPP in management.