

# **Sai Nath University**

## **Assignment For Diploma in Mechanical Engineering 6<sup>th</sup> Sem.**

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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:

➤ Session-2019

### **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.

<b>Subject code</b>	<b>Subject name</b>
DME 1	INDUSTRIAL MANAGEMENT
DME 2	INSPECTION AND QUALITY CONTROL
DME 3	AUTOMOBILE ENGINEERING
DME 4	ENTREPRENEURSHIP DEVELOPMENT AND MANAGEMENT
DME 5	INSTALLATION, TESTING & MAINTENANCE



# **SAI NATH UNIVERSITY**

## **Cover page of Assignment**

ID NUMBER .....

NAME .....

COURSE Diploma Engineering

STREAM MECHANICAL.....

SEM 6<sup>th</sup> .....

SUBJECT CODE .....

SUBJECT NAME .....

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

## INDUSTRIAL MANAGEMENT

### **Assignment**

#### **SEC A**

1. What are the major limitations of Taylor's idea on Management ?
2. Define and describe co-ordination, decision making and controlling.
3. Define leadership. What are the various characteristics of leadership ?
4. Define safety. What is the role of management in safety ?
5. What is planning ? Why is planning important ? Explain

#### **Sec B**

1. Explain the policies and procedures in planning.
2. What do you understand about decision making according to your industry needs ? Explain.

## **DIPLOMA 6th SEMESTER**

### **INSPECTION AND QUALITY CONTROL**

## **Assignment**

### **SEC A**

1. Describe the working of radius gauge with suitable diagram.
2. Explain any two methods of an ar measurement.
3. What are slip gauges ? Discuss their uses and advantages.
4. Explain the working of Try square and Straight edge with the help of suitable diagrams.
5. What are limit gauges ? Explain their uses.

### **Sec B**

1. List and explain three important parameters used in case of external screw thread measurement.
2. Describe roughness and waviness of a surface. Also explain their differences.

## **DIPLOMA 6th SEMESTER**

### **AUTOMOBILE ENGINEERING**

## **Assignment**

### **SEC A**

1. Describe the working of Ackerman's steering system used in automobile.
2. Explain the working principle of a constant mesh gear box with the help of a neat sketch.
3. What is need of carburetor an automobile ? Explain its working principle.
4. Why ignition system is required in automobile ? Explain any one of them in detail.
5. With the help of neat sketch differentiate and explain front wheel drive and rear wheel drive.

### **Sec B**

1. (a) Explain the working principle of differential gear box with the help of neat sketch.  
(b) Why clutch is required in an automobile ? Classify different types of clutch and explain briefly.
2. Differentiate between the functions of clutch and brake used in automobile.

## **DIPLOMA 6th SEMESTER**

### **ENTREPRENEURSHIP DEVELOPMENT AND MANAGEMENT**

#### **Part A**

1. Differentiate between 'Display buffer' and 'Frame buffer'.
2. How is the frame buffer used to control the intensity of pixels ?
3. Explain the Sutherland-Hodgman Polygon Clipping algorithm
4. Write DDA algorithm.
5. Compare and contrast between Perspective projection and Parallel projection.

#### **Part B**

1. (a) Differentiate between Gouraud and Phong shading. Give suitable diagrams and expressions for comparison.  
  
(b) Briefly describe any two of the following file formats :  
  
(i) jpeg                      (ii) tiff                      (iii) gif
  
2. (a) Explain the Area Subdivision algorithm. Use a suitable diagram to support your explanation.  
  
(b) What are the advantages of homogeneous coordinate system over Euclidean coordinate system ?

## **DIPLOMA 6th SEMESTER**

### **INSTALLATION, TESTING & MAINTENANCE**

#### **Part A**

- Q.1** What are the advantages of casting process ? Enumerate applications of different casting processes.
- Q.2** Name any five types of patterns. Briefly explain any two of them with neat diagram.
- Q.3** What are the four major parts of a carriage ? Briefly explain with the help of diagram.
- Q.4** . Sketch the tool head of a shaper and write its functions.
- Q.5** (i) ketch and explain the working of a slotter.
- (ii) Write note on pattern allowances, chaplet and plastic fabrication.

#### **Part B**

- Q1.** How does up-milling differ from down-milling ? Explain with the help of neat diagram.
- Q2.** Name any five types of milling cutters. Explain the working principle of any one.