



**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MONAD UNIVERSITY, HAPUR**

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Dated:-01/09/2017

Course: EME-351, Engineering Managerial Economics

Assignment No: I

Due date of submission: 11/09/2017

**Instructions**

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
2. Submit the responses to your **course faculty** 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) As you can define Economics according to Smith, Marshall, Robbins, Mehta & Growth centered Economists.
- b) You are aware about Economics than differentiate between Micro and Macro Economics.

**Q.2**

- a) As you are aware about demand, now discuss about its definition, types and law.
- b) You can draw a figure and define Elasticity of demand with its types & degrees.



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Dated:-01/09/2017

Course: EME-352, Machine Design -I

Assignment No: I

Due date of submission: 11/09/2017

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Q.1

- (a) You know about machine Design. If yes, explain the machine design in its procedure.
- (b) You are already aware of engineering materials, can you explain their properties.

Q.2

- (a) As you are familiar with the concept of preferred number, explain the various types of preferred number with suitable example.
- (b) You know about design against of static load. Explain mode of failure.



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Dated:-01/09/2017

Course: EME-353, Theory of Machines

Assignment No: 1

Due date of submission: 11/09/2017

Instructions

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Q 1.

- (a) As you already know about kinematic pairs. Explain the classification of kinematic pairs based on nature of relative motion.
- (b) As you already know about pairs. Explain rigid, flexible and fluid links with example.

Q2.

- (a) As you are familiar with the study of relative motion in machine elements. Explain the differences between :
  - i. Kinematics and dynamics
  - ii. Kinetics and Statics
- (b) As you already know about mechanisms. Explain the single slider crank mechanism with diagram.



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Course: EME- 354, Heat and Mass Transfer

Dated:-01/09/2017

Assignment No: 1

Due date of submission: 11/09/2017

Instructions

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**Q.1**

(a) You are aware about heat transfer. Differentiate between thermodynamics and heat transfer.

(b) You know about convection & radiation. Explain Newton's law of cooling & Stefan-Boltzmann law.

**Q.2**

(a) As you are aware about thermal conductivity of materials. Explain effect of temperature on thermal conductivity of materials.

(b) You are familiar about heat conduction. Derive general heat conduction equation in Cartesian coordinates.



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Dated:-01/09/2017

Course: EME-355, I C Engine & Compression

Assignment No: 1

Due date of submission: 11/09/2017

Instructions

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**Q.1**

- (a) You are aware about the alternative fuels. Write short notes on LPG and CNG.
- (b) You know about Otto cycle. Derive the expression for thermal efficiency of Otto cycle.

**Q.2**

- (a) You know about SI Engine and CI engine. What are the differences between them?
- (b) You are familiar about IC engine. Describe the different components of an IC engine.



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Dated:-01/09/2017

Course: EME-356-MFS-II

Assignment No: 1

Due date of submission: 11/09/2017

Instructions

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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) I know you are aware about metal cutting. Explain the conditions which have an important influence on metal cutting.

(b) We know very well that during the metal cutting process chip formation takes place. Explain the types of Chips.

**Q.2**

(a) We know very about cutting tools. Classify the types cutting tools.

(b) We are aware about orthogonal and oblique cutting. Compare between orthogonal cutting and oblique cutting.