



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Course: EME-351, Engineering Managerial Economics

Dated:-10/10/2017

Assignment No: 2

Due date of submission: 23/10/2017

Instructions

1. Write the responses to the assignment in your own hand writing & don't copy from other's assignment.
2. Submit the responses to your "**course faculty**" within due date.
3. Write your name, programme, and Enrolment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Ques. No: - 1.

- (a) You are aware of the business fluctuations in the economy, now discuss about the phases of business cycle.
- (b) As you are familiar to the concept of Monetary Economics, now discuss about the merits and demerits of Demonetisation in the Economy.

Ques. No.:- 2.

- (a) Discuss about the concepts of Fixed Cost, Variable Cost, Average Cost, Marginal Cost and Opportunity Cost.
- (b) Define Managerial Economics with its scope in engineering perspective.



DEPARTMENT OF MECHANICAL ENGINEERING
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Dated:-10/10/2017

Course: EME-352, Machine Design -I

Assignment No: 2

Due date of submission: 23/10/2017

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Q.1

- (a) You know about Soderberg, Goodman & Gerber criteria. If yes, explain its procedure.
- (b) You are already aware of rivet joint, can you explain their properties.

Q.2

- (a) As you are familiar with the concept of keys, explain the various types of keys with suitable example.
- (b) You know about design of shafts subjected to twisting moment. Explain processes of design shafts subjected to twisting moment.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/10/2017

Course: EME-353, Theory of Machines-I

Assignment No: 2

Due date of submission: 23/10/2017

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Q 1.

- (a) As you already know about friction. Explain the laws of friction.
- (b) As you already know about the role of drives in power transmission. Explain belt drive with its advantages and disadvantages.

Q2.

- (a) As you already know about belt drives. Explain the differences between open belt drive and crossed belt drive.
- (b) A body is to be moved up an inclined plane by applying a force parallel to the plane surface. It is found that a force of 3KN is required to just move it up the plane when the angle of inclination is 10° whereas the force needed increases to 4KN when the angle of inclination is increased to 15° . Determine the weight of the body and the coefficient of friction.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Course: EME- 354, Heat and Mass Transfer

Dated: - 10/10/2017

Assignment No: 2

Due date of submission: 23/10/2017

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Q.1

(a) You are aware about critical thickness of insulation. Derive an expression for critical thickness of insulation of cylinder.

(b) You know about fins. Derive an expression for temperature distribution and heat dissipation in a straight fin of rectangular profile for infinitely long fin.

Q.2

(a) As you are aware about heat exchanger. Explain different types of heat exchanger.

(b) You are familiar about parallel flow heat exchanger. Derive an expression of logarithmic mean temperature difference (LMTD) for parallel flow heat exchanger.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/10/2016

Course: EME-355-I C Engine& Compression

Assignment No: 2

Due date of submission: 23/10/2016

Instructions

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4. Each question's part carries 5 marks.

Q.1

- (a) You are aware about the lubrication system of IC engine. Describe Wet sump lubrication system with the help of neat sketch.
- (b) You know about the emission of IC engine. Describe the Hydrocarbon emission in IC engine.

Q.2

- (a) You know about supercharging. Describe two different methods of supercharging.
- (b) You are familiar about ignition system of IC engine. Describe battery ignition system with the help of neat sketch.



DEPARTMENT OF MECHANICAL ENGINEERING
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Course: EME-356, Manufacturing Science-II

Dated:-10/10/2017

Assignment No: 2

Due date of submission: 23/10/2017

Instructions

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Q.1

(a) I know you are aware about lathe machine. Write the differences between a Turret lathe & Capstan lathe.

(b) I know you are aware with machining parameters. Define cutting speed, feed and Depth of cut.

Q.2

(a) I know you are familiar with shaping machine. Write the working principle of shaper machine.

(b) I know you are aware with planer machine. Compare between Planer machine & Shaper machine.