



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Session - (2017-2018)

Programme Name:

Student's Name:

Father's Name:

Enrollment Number:

Course Name:

Course Code:

Assignment Number:

Date of Submission:

Course Faculty Signature



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: EME-361, Machine Design -II

Assignment No: II

Due date of submission: **20 /04/2018**

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) You already know about helical gear. If yes, explain the terminologies involved in a helical gear profile.

(b) You are already aware of herringbone gears, can you explain the design considerations for a spur gear.

Q.2

(a) As you are familiar with the concept of bearing, explain the various types of bearing.

(b) Based upon your knowledge about rolling contact bearing; explain ball bearing and thrust ball bearing.



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

Dated:-**10/04/2018**

Course: EME-362, Non Conventional Energy Resources

Assignment No: II

Due date of submission: **20/04/2018**

Instructions

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Q.1

(a) I know you are aware about biomass resources. Write the classification of biomass resources.

(b) I know you are aware about composition of biomass. Write the composition of biomass.

Q.2

(a) We are familiar with biogas energy. Define biogas energy and also discuss uses of biogas energy.

(b) You are familiar with process parameters which affect the biogas production. Define the process parameters which affect the biogas production.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: EME- 363, Theory of Machines- II

Assignment No: II

Due date of submission: **20/04/2018**

Instructions

5. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
6. Submit the responses to your **course faculty** within due date.
7. Write your name, Programme, and Enrollment no. clearly at the top of the page.
8. Each question's part carries 5 marks.

Q.1

(a) As you already know about Porter governor; Show that

$$N^2 = \frac{895}{h} \left(\frac{2mg + (Mg \pm f)(1+k)}{2mg} \right)$$

(b) As you are familiar with governor; explain the working of a centrifugal governor with neat diagram.

Q.2

(a) As you are familiar with fluctuations of load; explain the following terms:

- i. Sensitiveness
- ii. Isochronism
- iii. Hunting

(b) You already have studied balancing; explain the partial balancing of two cylinder locomotives.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: EME-364-Fluid Machinery

Assignment No: II

Due date of submission: **20/04/2018**

Instructions

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
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Q.1

- (a) You are aware about the reciprocating pump. Describe the working principle of reciprocating pump with neat sketch.
- (b) You know about hydraulic press. Describe it with neat sketch.

Q.2

- (a) You know about cavitation. What are the effects of cavitation? Give the necessary precaution against cavitation.
- (b) You are familiar about unit quantities. Describe unit discharge, unit speed and unit power.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: EME 365 - Refrigeration & Air conditioning

Assignment No: II

Due date of submission: **20/04/2018**

Instructions

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
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4. Each question's part carries 5 marks.

Q.1

(a) You are familiar about standard vapour compression refrigeration cycle. If yes, then explain its all processes with the help of P-h & T-S diagram.

(b) You are aware about multistage system. Derive the coefficient of performance of cascade refrigeration.

Q.2

(a) You know about vapour refrigeration cycle. Differentiate between theoretical vapour compression cycle and actual vapour compression refrigeration cycle.

(b) You are aware about vapour absorption refrigeration system. If yes, then differentiate between vapour absorption and vapour compression refrigeration system.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: EIM 366 – Industrial Management

Assignment No: II

Due date of submission: **20/04/2018**

Instructions

1. Write the responses to the assignment in your own handwriting & don't copy from other's assignment.
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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) You know that Quality Control & Total Quality Management are two different things. You will learn more if you define both of them & differentiate between them.

(b) Describe the various methods of controlling industrial pollution.

Q.2

(a) "Many productive activities and technologies that we use have a disastrous impact on mankind" Comment.

(b) What do you understand by Acceptance Sampling? Explain the methods of double sampling & sequential acceptance sampling.