



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Session - (2018-2019)

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:- 10/04/2019

Course: BTME 321 – Operation Research

Assignment No: 2

Due date of submission: **22/04/2019**

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 are aware of the Operations Research, explain the Hungarian method.
- (b) Define the algorithm of simplex method.

Q2.

- (a) As you are aware of the transportation problems, give an solved problem on MODI method.
- (b) What are the replacement problems, define with an example?



DEPARTMENT OF MECHANICAL ENGINEERING MONAD UNIVERSITY, HAPUR

Dated:- 10/04/2019

Course: BTME 322 - Refrigeration & Air conditioning

Assignment No: 2

Due date of submission: **22/04/2019**

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.
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Q.1

(a) You are aware about vapour compression refrigeration system. Explain vapour compression refrigeration system with neat diagram.

(b) You know about T-S and P-h chart. Explain the effect on coefficient of performance when evaporator pressure decreases.

Q.2

(a) You are familiar about multistage vapour compression refrigeration system. Explain working principle of multistage vapour compression refrigeration system.

(b) You are aware about refrigeration system. Write the advantage of vapour compression refrigeration system over air refrigeration system.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2019

Course: BTME-323, Machine Design -II
Assignment No: 2

Due date of submission: **22 /04/2019**

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 are already known about bearing. If yes, explain the terminologies involved in a bearing and also explain properties of bearing.
- (b) You are already aware of worm wheel and worm gear; explain the classification of worm and worm gear.

Q.2

- (a) As you are familiar with the sliding contact bearing, explain the various types of sliding contact bearing.
- (b) You are aware about I.C. Engine part; explain the cylinder liner.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2019

Course: BTME-324 Measurement and Instrumentation.

Assignment No: 2

Due date of submission: 22/04/2019

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 **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 are aware about bimetallic thermometer. How can you measure temperature with the help of bimetallic thermometer?
- (b) You know about hydraulic load cell. Explain the working principle of hydraulic load cell.

Q.2

- (a) You are familiar with U-tube manometer. How can you measure pressure with the help of U-tube manometer?
- (b) You are aware about rope brake dynamometer. Write short note on rope brake dynamometer.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2019

Course: BTME-325, Heat & Mass Transfer

Assignment No: 2

Due date of submission: **22 /04/2019**

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 already know about heat exchanger. Explain the types of heat exchanger.

(b) As you are aware about radiation heat transfer. Define the following terms:

- i. Total emissive power
- ii. Emissivity
- iii. Black body

Q.2

(a) As you are familiar with fins. Explain the role of fins in a heat exchanger.

(b) As you already know the modes of heat transfer. Define the following terms:

- i. NTU
- ii. Effectiveness of a heat exchanger