



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

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**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**

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Dated:-01/03/2018

Course: BTME –221, Engineering Thermodynamics

Assignment No: 1

Due date of submission: 12/03/2018

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 Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

**Q.1**

(a) You are aware about basics of thermodynamics. If yes, then explain open, closed and isolated system with examples.

(b) You are familiar about Zeroth law of thermodynamics. If yes, then explain the working of a thermometer.

**Q.2**

(a) You already have studied the basics of thermodynamics. Explain reversible, irreversible and quasi static processes.

(b) You are aware about thermodynamic properties. Explain intensive & extensive properties with examples.



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Dated:-01/03/2018

Course: BTME- 222, Strength of Materials- II

Assignment No: I

Due date of submission: **12/03/2018**

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.
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4. Each question's part carries 5 marks.

Q.1

(a) As you already know about properties of materials; explain strain energy, resilience and proof resilience.

(b) With your fundamental knowledge of strength of materials derive an expression for strain energy when load is applied gradually.

Q.2

(a) As you are familiar with the concept of torsion; derive an expression for strain energy stored in a solid cylindrical rod of length  $L$  and diameter  $D$  under a twisting moment  $T$ .

(b) You already have studied strain energy and impact loading; derive an expression for strain energy when load is applied suddenly.



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Dated:-01/03/2018

Course: BTME-223-Fluid Machine

Assignment No: 1

Due date of submission: 12/03/2018

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 Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

**Q.1**

- (a) You are aware about jet propulsion of ship. Derive an expression for propulsive force exerted on ship.
- (b) You know about impulse and reaction turbine. What are the differences between impulse and reaction turbine?

**Q.2**

- (a) You know about impact of jet. Derive an expression for force exerted by the jet of water when jet strikes on a stationary vertical plate.
- (b) You are familiar about efficiency of a turbine. Explain Hydraulic, Mechanical, Volumetric and Overall efficiency of a turbine.



# DEPARTMENT OF MECHANICAL ENGINEERING

## MONAD UNIVERSITY, HAPUR

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Dated:-01/03/2018

Course: BTME-224, Manufacturing Technology-II

Assignment No: 1

Due date of submission: 12/03/2018

### 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 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 the metal cutting process. Define mechanics of the metal cutting process.

(b) I know you are familiar with tool geometry. Discuss about the tool nomenclature systems.

### Q.2

(a) You are very well familiar with cutting tool materials. Elaborate the cutting tool materials.

(b) You know about cutting fluids very well. Explain the advantages of cutting fluids in the metal cutting process.



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**Dated:-01/03/2018**

Course: BTME—225, KINEMATICS OF MACHINES.

Assignment No: 1

Due date of submission: 12/03/2018

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 Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Q.1

(a) You are aware about the Mechanism and machine. If yes, then explain it.

(b) You know that links and kinematic pairs are very important in the field of Engineering. Please explain the classification of kinematic pair.

Q.2

(a) You know about the Degree of freedom. If yes, then explain with example.

b) You are aware about constrained motion . If yes, then explain it.



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**Dated:-01/03/2018**

Course: BCOM—221, Business Economics & Accounting.

Assignment No. 1

Due date of submission: 12/03/2018

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 Enrollment no. clearly at the top of the page.
4. Each question's part carries 5 marks.

Question:-1

- (a) What are the fundamental concepts and principles of management economics?
- (b) Explain significance of Managerial Economics in Decision-Making.

Question:-2

- (a) Define 'Managerial Economics'. Explain its characteristics also.
- (b) Who is Managerial Economist? Explain roles of Managerial Economist.