



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: -MTME-121 Optimization For Engineering Design.

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 know about genetic algorithm. What are basic operations used in genetic algorithm?
- (b) You are aware about Rosenbrock method. Why is Rosenbrock method called the method of rotating coordinates?

Q.2

- (a) You are familiar with direct search method of unconstrained optimization techniques. What are the characteristics of a direct search method?
- (b) You are aware simulated annealing. Can you consider simulated annealing as a zeroth-order search method?



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated: -10/04/2018

Course: MTME-122, Advanced Mechanics of Solids

Assignment No: II

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

Instructions

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Q.1

(a) As you already know about stress; explain the stresses in uniform rotating rings and discs.

(b) As you are familiar with torsion; show that $\frac{T}{J} = \frac{\tau}{R} = \frac{C\theta}{L}$

Q.2

(a) As you are familiar with theories of failure; explain failure theories for fiber composites.

(b) You already have studied elastic constants; establish the relationship between Young's modulus of elasticity, Shear modulus and Poisson's ratio.



DEPARTMENT OF MECHANICAL ENGINEERING
MONAD UNIVERSITY, HAPUR

Dated:-10/04/2018

Course: MTME—123, Production Technology.

Assignment No: II

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

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) You are aware about the metal forming process. If yes, then explain it.

(b) You know that Tool geometry of metals is very important in the field of metal cutting. Please explain the classification of metal cutting process.

Q.2

(a) You know about the rolling, deep drawing and turning. If yes, then explain with example.

(b) You are aware about electron beam and induction welding fields in the welds. If yes, then explain it.



DEPARTMENT OF MECHANICAL ENGINEERING
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Dated:-10/04/2018

Course: MTME-124, Total Quality Systems

Assignment No: II

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

Instructions

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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 quality engineering. Write the importance of Quality engineering in the industry.
- (b) We know that you are aware about KAIZEN. Discuss the benefits of KAIZEN in the industry.

Q.2

- (a) You are familiar with philosophy of TQM. Write philosophy of TQM.
- (b) You are aware about quality system and standards. Elaborate the quality system and standards.