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BME-059

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination, 2019

BME-059 : MANUFACTURING PROCESS-III

Time : 2 Hours]

[Maximum Marks : 70

Note : Answer any five questions. All questions carry equal marks.

1. (a) Explain the working of horizontal and column type milling machine with the help of diagrams. [7]
- (b) With the help of neat diagram, explain the different type of milling operations. [7]
2. (a) Explain various operations performed on broaching machines. [7]
- (b) Describe in brief the following : [7]
 - (i) Cutting fluid
 - (ii) Machinability

3. (a) With the help of neat sketch, explain the working of mechanical press. Also mention the advantages and disadvantages. [7]
- (b) What are the factors to be considered for the selection of press for sheet metal operations ? Discuss in detail. [7]
4. (a) What points should be considered for selection and designing a jig and fixture ? [7]
- (b) What are the different types of clamps used ? Explain with the help of neat diagram anyone type of clamp. [7]
5. (a) With the help of neat diagram, explain working process of Ultrasonic machining. Also mention applications, advantages and disadvantages. [7]
- (b) With the help of neat sketch explain the working principle of Electro Chemical Machining (ECM); also mention the applications, advantages and disadvantages. [7]
6. (a) With the help of neat diagram, explain the working principle of gear hobbing machine. [7]

(b) What are the different methods for gear manufacturing ? Explain the advantages and disadvantages of gear shaping machine. [7]

7. Write short notes on the following : [2x7=14]

(i) Laser Beam Machining

(ii) Injection Moulding Machine

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