

**DIPLOMA IN MECHANICAL ENGINEERING  
(DME)**

**Term-End Examination**

**June, 2017**

**00397**

**BME-059 : MANUFACTURING PROCESS – III**

*Time : 2 hours*

*Maximum Marks : 70*

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

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1. (a) What are the types of Milling Machines ?  
Explain any one with a labelled diagram. 7
- (b) What cutting tool materials are generally used for milling ? Discuss their relative advantages. 7
2. (a) What is face plate ? Discuss its applications. 7
- (b) What is eccentric turning ? How is it performed on a centre lathe ? 7
3. (a) What are the types of dies ? Explain any one type with a neat sketch. 7
- (b) List out the different manufacturing processes to produce the dies. 7

4. (a) Differentiate between jigs and fixtures.  
Discuss the use of fixtures with an example. 7
- (b) What are the types of drilling jigs ?  
Describe any one of them with suitable  
labelled diagram. 7
5. (a) What are the common mechanisms used for  
reciprocating ram in a shaper ? 7
- (b) Sketch the common shapes of shaper tool  
with application. 7
6. (a) Discuss the various types of Gear-cutters  
with neat sketches. 7
- (b) Explain the working of a broaching machine  
with a neat and labelled diagram. 7
7. Write short notes on any **two** of the  
following :  $2 \times 7 = 14$
- (a) Laser Beam Machining
- (b) Limitations in the use of plastic material
- (c) Types of Indexing
- (d) Injection Moulding
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