

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

00522

Term-End Examination

June, 2019

BME-051 : MANUFACTURING PROCESSES - I

Time : 2 hours

Maximum Marks : 70

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

1. (a) Explain the following lathe operations with neat sketch : 10
 - (i) Step Turning
 - (ii) Taper Turning

- (b) A shaft 900 mm long is to be turned taper for a length of 225 mm. The amount of taper is 1:100. Determine the set over required. 4

2. (a) Explain the method of Eccentric Turning with diagram. 6

- (b) With neat sketch, write about single-point cutting tool used for turning operations. 8

3. (a) What are the different operations performed on a drilling machine ? Explain any two. 8
- (b) Discuss about different drilling tools. 6
4. (a) Explain about vertical boring machine with neat diagram. 7
- (b) Write in brief about work holding devices used for vertical boring machine. 7
5. (a) Describe shaping machine and the mechanisms used. 7
- (b) With neat diagram, explain about slotting machine. 7
6. (a) Write about the following : 6
- (i) Cutting speed
- (ii) Feed
- (iii) Depth of cut
- (b) Explain milling machine with neat sketch. 8
7. (a) Define moulding. Explain any two types of moulding processes. 7
- (b) Explain the properties of moulding sand. 7
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