

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

June, 2016

00790

BME-051 : MANUFACTURING PROCESSES - I

Time : 2 hours

Maximum Marks : 70

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

1. (a) Describe and explain the taper turning by a form tool and setting over the tail stock method with the help of a neat sketch. 8
- (b) Explain thread cutting operation with the help of a neat diagram. 6
2. (a) Explain and differentiate between drilling and reaming operations with neat sketches. 8
- (b) Explain the working principle of a Radial drilling machine with the help of a diagram. 6
3. (a) Explain the working principle of a Vertical Boring machine with the help of a neat sketch. 8
- (b) Draw the different types of Boring tools and briefly explain them. 6

4. (a) Explain the following terms : 6
(i) Lapping
(ii) Grinding
(b) Describe the working principle of a shaper machine with the help of a neat sketch. 8
5. (a) List various operations performed on a planar machine. Explain at least five operations in detail. 10
(b) Define cutting speed and feed. 4
6. Explain the industrial applications of milling machines. Also explain at least seven operations performed on a milling machine with the help of neat sketches. 14
7. (a) What do you understand by the term gating system ? Explain the functions of different elements of gating system with the help of a neat sketch. 8
(b) What are the commonly used materials for pattern making ? Discuss their merits and demerits. 4
(c) Name the different properties of moulding sand. 2
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