

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

December, 2015

BME-059 : MANUFACTURING PROCESS – III

Time : 2 hours

Maximum Marks : 70

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

1. (a) What are the types of milling machines ?
Explain the universal milling machine with a neat sketch. 7
- (b) Enumerate the various work holding devices used in a milling machine with the help of sketches, show the use of important work holding devices. 7
2. (a) Explain the working of horizontal broaching machine with a neat sketch. 7
- (b) Enumerate the various factors that need to be considered while selecting the cutting speed of broaching tool. 7

3. (a) What is high speed presses ? List out the various applications of press. 7
- (b) What are the types of punches ? Explain any one types with a neat sketch. 7
4. (a) What are the types of clamps ? Explain the purpose of clamping with suitable examples. 7
- (b) Differentiate between the compound die and combination die with neat sketches. 7
5. (a) Explain the process of electric chemical machining with a neat sketch. Also state its application. 7
- (b) Explain the working of laser beam machining with a suitable sketch. State its application. 7
6. (a) Explain the working principle of clear hobbing machine with a neat sketch. 7
- (b) What are the different types of plastics ? List out their uses and properties. 7

7. (a) What are the types of gear shaping cutters ? Explain any one type with a neat sketch. 7
- (b) Explain the working of injection moulding machine with a neat sketch. 7
8. Write short notes on any *two* of the following : $2 \times 7 = 14$
- (a) Index Plate
 - (b) Die Clearance
 - (c) Ultrasonic Machining
 - (d) Gear Shaping Cutters
-