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BME-059

DIPLOMA IN MECHANICAL ENGINEERING (DME)

Term-End Examination

00358

June, 2015

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 principle of a vertical milling machine with a neat sketch. 7

(b) Explain the effect of cutting speed, feed and depth of cut on the finish obtainable on a milling machine, with suitable examples. 7

2. (a) Explain the working of a horizontal broaching machine with a neat sketch. 7

(b) Differentiate between Internal broaching and External broaching. 7

3. (a) Explain the working of a mechanical press with a neat sketch. 7

(b) What is a die ? What are its uses ? Describe with a sketch the working of commonly used dies. 7

4. (a) What points should be considered for selecting and designing a jig and a fixture ? 7

(b) What is the difference between a jig and a fixture ? Explain with suitable examples. 7

5. (a) Explain the process of Electric Discharge Machining (EDM) with a neat sketch and state its application. 7

(b) Explain the process of an ultrasonic machine with a neat sketch and state its application. 7

6. (a) Explain the working principle of a gear shaping machine with a neat sketch. 7

(b) Describe about the gear finishing operations with suitable examples. 7

7. (a) Explain the working of a compression moulding machine with a neat sketch. 7

(b) What are the advantages and limitations in the use of plastics ? 7

8. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$

(a) Universal Dividing Head

(b) Stripper Plate

(c) Locating Devices

(d) Laser Beam Machining