

**DIPLOMA IN MECHANICAL ENGINEERING  
(DME)**

**Term-End Examination**

**00795**

**December, 2014**

**BME-054 : MANUFACTURING PROCESS – II**

*Time : 2 hours*

*Maximum Marks : 70*

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

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1. (a) Explain using a neat sketch, how wire drawing of metals is done. 5  
(b) Differentiate between piercing and blanking. Explain using a sketch, a die used for piercing and blanking. 5
2. (a) Briefly explain the different types of rolling mills indicating the direction of rollers. 5  
(b) Describe in detail, the process of production of metal powders in powder metallurgy. 5
3. (a) List the different types of grinding machines. Give their specifications. 5  
(b) Briefly describe the different types of abrasives used in grinding wheel manufacture. Explain the desirable properties of abrasives. 5

4. (a) What are hones ? How is the honing tool fabricated ? 5
- (b) With a neat sketch, explain the lapping process. 5
5. (a) Explain the need for application of metallic and non-metallic coatings. 5
- (b) Using a neat sketch explain the electroplating process. 5
6. (a) What is galvanizing ? Explain the galvanizing process followed for pipes. 5
- (b) What are the advantages of anodizing ? How is this process carried out ? Explain. 5
7. (a) List the different tools used for gas welding. Also give the colour coding used in gas welding. 5
- (b) How are electric arc welding electrodes specified ? 5
8. (a) With neat sketch, distinguish between spot welding and seam welding. 5
- (b) List any five welding defects and give reasons for welding defects. 5
9. (a) Describe in detail how brazing is carried out. 5
- (b) Distinguish between soldering and brazing with examples. 5

**10. Write short notes on any *two* of the following :  $2 \times 5 = 10$**

- (a) TIG Welding
  - (b) Constructional features of a band saw machine
  - (c) Soldering defects and their remedies
  - (d) Thermit welding
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