

**DIPLOMA IN MECHANICAL ENGINEERING  
(DME)**

**Term-End Examination**

**December, 2015**

**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) What is Powder Metallurgy ? How is it different from casting ? 5
- (b) Distinguish between hot working and cold working process. 5
2. (a) Explain the process of extrusion with a neat sketch. 5
- (b) What is the role of recrystallization temperature in metal forming ? Explain in detail. 5
3. (a) How are the grinding wheels classified and specified ? Discuss the salient features of alphanumeric system used for grinding wheel specification. 5
- (b) Discuss the parameters used in grinding operation. 5

4. (a) What is surface roughness ? How is it measured ? Explain the centre line average method. 5
- (b) Explain the honing process with a neat sketch. 5
5. (a) How is the super finishing attachment used on centre lathe ? Explain with a suitable sketch. 5
- (b) Explain the process of metal spraying with a neat sketch. 5
6. (a) What are applications of metallic and non-metallic coating ? Explain. 5
- (b) Explain the process of anodizing with a neat sketch. 5
7. (a) Explain the process of electric arc welding with a neat sketch. 5
- (b) Give various welding defects. How can these be minimized ? 5
8. (a) Explain the laser beam welding process with a neat sketch. 5
- (b) Describe the various steps of soldering procedure. 5

9. (a) Explain the brazing process and give its two important applications. 5
- (b) Enumerate the construction and working of power saw with a neat sketch. 5
10. Write short notes on any *two* of the following :  $2 \times 5 = 10$
- (a) Sintering
- (b) Specification of Electrodes
- (c) Seam Welding
- (d) Care and Use of Band Saw
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