

**DIPLOMA IN MECHANICAL ENGINEERING
(DME)**

Term-End Examination

00061

June, 2015

BME-054 : MANUFACTURING PROCESS – II

Time : 2 hours

Maximum Marks : 70

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

1. (a) Explain with neat sketches, the rolling processes followed for plates, sheets and sections. 5
- (b) What is a mandrel ? How is it useful in tube drawing operation ? Explain using sketch. 5
2. (a) What is forging ? List the different types of forging operations. 5
- (b) What is the speciality of products formed by powder metallurgy ? Give their superior characteristics over metallic products. 5
3. (a) What is grinding process ? Sketch any four shapes of grinding wheels. 5
- (b) Write the applications of centreless grinding and surface grinding. 5

4. (a) Briefly highlight the defects associated with grinding process. How are they remedied ? 5
- (b) Describe how the grinding wheels are made from abrasive powder. Also give their nomenclature. 5
5. (a) Give the reasons for finishing operations on machined surfaces. Also list any four finishing processes and their applications. 5
- (b) Describe the honing process followed in the operation of cylinders. 5
6. (a) Write a note on lapping compounds and the tools used for lapping process. 5
- (b) Briefly explain any two super finishing operations. 5
7. (a) Explain the hot dip galvanizing process. 5
- (b) Describe the processes of electroplating. 5
8. (a) What are the different gases used as a fuel in gas welding ? Also sketch the flames structure and describe the different zones in it. 5
- (b) Describe the equipments and tools used for arc welding. Write some applications. 5

9. (a) Give a note on selection of electrode, flux, current and equipment for arc welding. 5
- (b) Describe the spot welding process performed on sheets. 5
10. (a) Differentiate between soldering and brazing with examples. 5
- (b) Explain the construction and working of a band saw, with a sketch. 5
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