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**DIPLOMA IN MECHANICAL ENGINEERING  
(DME)  
DIPLOMA - VIEP - MECHANICAL  
ENGINEERING**

**Term-End Examination  
December, 2013**

**BME-059 : MANUFACTURING PROCESS - III**

*Time : 2 hours*

*Maximum Marks : 70*

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*Note : Attempt **any five** questions. All questions carry equal marks. Use of scientific calculator may be **allowed**.*

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1. (a) How milling machines are classified ? 7  
Describe different specification parameters and their effect in milling machines.
- (b) With the help of neat sketch explain 7  
nomenclature of milling cutter.
2. (a) Explain different types of broaches and their 7  
applications.
- (b) What are the various factors to be 7  
considered while selecting the broaching tools ?
3. (a) What are the economic aspects of the use of 7  
Jigs and fixtures ? Differentiate between Jig and a fixture.
- (b) What are the main types of Jigs ? Discuss 7  
these with the help of suitable sketches.

4. (a) What are the various locating devices ? Explain with the help of sketch. 7  
(b) State the principle of Electron Beam Machining and state its application. 7
5. (a) Describe working mechanism of electro chemical machine with the help of neat diagram. 7  
(b) Explain the working principle of plasma arc machining. 7
6. (a) Describe any one gear finishing operations and list the factors on which these operation depend. 7  
(b) Explain the various types of gear shaping cutters. 7
7. (a) Differentiate between thermoplastics and thermosetting plastics. 6  
(b) Describe in brief the role of plastic in present manufacturing environment. Also explain the process of injection moulding. 8
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