

**DIPLOMA - VIEP - MECHANICAL
ENGINEERING (DMEVI)**

Term-End Examination

June, 2015

00386

BIME-033 : MACHINE TOOLS

Time : 2 hours

Maximum Marks : 70

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

1. (a) How are lathe machines classified ? Write four differences between Capstan and Turret lathe. 7
- (b) What are the different operations performed on a lathe ? Explain, how the work is centred. 7
2. (a) What are the safety guidelines and precautions to be followed while working on a lathe machine ? 7
- (b) Draw a block diagram of a lathe machine showing its different parts. 7

3. (a) Describe Bench drilling machine with a block diagram. 7
- (b) What are the different operations performed on a drilling machine ? Discuss any one of them. 7
4. (a) Write about the different abrasives used in making grinding wheels. 7
- (b) Based on surface generated, classify the 'grinding machines'. 7
5. (a) Explain the parts and angles of a milling cutter with neat diagram. 7
- (b) What are the different types of milling methods ? Explain any one of them. 7
6. (a) What is the difference between Bed type and Planer type milling machines ? 7
- (b) What are the common 'work' holding devices used on milling machines ? Explain any one of them with a neat sketch. 7
7. (a) What are the advantages and limitations of broaching machine ? 7
- (b) What are the different broaches ? Explain about continuous broaching. 7

8. Write short notes on any *four* of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) NC and CNC Machines
 - (b) Flexible Manufacturing System
 - (c) Buffing and Burnishing
 - (d) Cam Milling
 - (e) Gear Hobbing
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