

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

Term-End Examination

00115

December, 2014

BIME-033 : MACHINE TOOLS

Time : 2 hours

Maximum Marks : 70

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

1. (a) Draw the block diagram of a 'Lathe machine' and briefly explain its various parts. 10
- (b) Explain how a lathe is specified. 4
2. (a) Explain about different 'Lathe centres' and their applications with diagrams. 7
- (b) Explain about the classification of 'Locating surfaces' on a lathe machine. 7
3. (a) Describe the working of a Radial drilling machine with a neat diagram. 7
- (b) Explain the various drilling operations with neat diagrams. 7

4. (a) Explain the process of 'Deep Hole' boring with its applications. 7
- (b) Write about different types of Deep Hole tools. 7
5. (a) Write about the classification of Milling machines and briefly explain how Profile Milling machine works. 7
- (b) What are the different attachments used in a Milling Machine ? Explain any one of them. 7
6. (a) How is a grinding wheel selected ? Explain with an example. 7
- (b) Explain the process of 'Centreless' grinding with a neat sketch. 7
7. (a) Explain the working of 'Quick Return' mechanism with a neat diagram. 7
- (b) Write about the working of a 'Planer machine' with diagram showing its parts. 7
8. Write short notes on any **four** of the following : $4 \times 3 \frac{1}{2} = 14$
- (a) Thread cutting on a Lathe machine
- (b) Lapping and Honing
- (c) CNC Machines
- (d) Broaching Tool
- (e) Speed, feed and depth of cut of Lathe machine
- (f) Tapping and Reaming