

**DIPLOMA – VIEP – MECHANICAL  
ENGINEERING (DMEVI)****Term-End Examination**

00955

June, 2017

**BIME-033 : MACHINE TOOLS**

Time : 2 hours

Maximum Marks : 70

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

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1. (a) Draw the block diagram of a lathe machine and briefly explain its various parts. 10
- (b) Briefly explain the commonly used lathe attachments. 4
2. (a) Explain different lathe centres and their applications with diagrams. 7
- (b) What are the different operations performed on a lathe machine ? Explain them. 7
3. (a) Explain briefly with a neat sketch, the principal parts of a shaper machine. 7
- (b) What is the fundamental difference between a planer and a shaper machine ? 7

4. (a) Describe the bench drilling machine with a block diagram. 7
- (b) Explain the parts and angles of a milling cutter with a neat diagram. 7
5. (a) How is the size of a drilling machine specified ? Differentiate between drilling, boring and reaming operations. 7
- (b) Explain briefly the following milling processes : 7
- (i) Up milling
- (ii) Down milling
6. (a) Explain briefly the main elements of a broaching tool with the help of a neat sketch. 7
- (b) Explain the process of centreless grinding with a neat sketch. 7
7. (a) Explain the working of the Quick Return Motion mechanism with a neat sketch. 7
- (b) Write about the working of a planer machine with a neat sketch. 7
8. (a) Explain briefly the lapping process. Give the examples of lapping work. 7
- (b) Briefly explain the difference between NC, CNC and DNC machines. 7
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