

**B.TECH. – VIEP – MECHANICAL ENGINEERING (BTMEVI)**

**Term-End Examination**

**December, 2018**

**BIME-003 : MACHINE DRAWING**

*Time : 3 hours*

*Maximum Marks : 70*

**Note :** Question no. 5 is **compulsory**. Attempt any **three** questions from the remaining questions. Use of scientific calculator is permitted.

1. (a) Sketch the following thread profiles for a nominal diameter of 25 mm and pitch 3 mm : 6
  - (i) ACME thread
  - (ii) Isometric thread
  - (iii) Knuckle thread
- (b) With the help of sketch, differentiate between the following : 8
  - (i) Bolt and Screw
  - (ii) Machine screw and Set screw
2. (a) Sketch the following keys and write their applications : 4
  - (i) Feather key
  - (ii) Woodruff key
- (b) Draw the half-sectional view from the front, and view from the side of a cotter joint with sleeve used to connect two rods of 60 mm diameter each. 10
3. (a) Describe the ways in which a riveted joint may fail. What are the steps required to prevent the failures ? Illustrate your answer with neat sketches. 7
- (b) Sketch two views of a single riveted butt joint, with two cover plates for 10 mm thick plates. 7
4. (a) A pentagon is to be drawn using AutoCAD with one of its sides vertical. If the length of the side is 11 mm, write down the commands to complete the task. 7
- (b) Draw the conventional representation of Bevel Gear. 7

