BIME-003

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 With the help of sketch, differentiate between the following: 8 (i) **Bolt and Screw** (ii) Machine screw and Set screw Sketch the following keys and write their applications: 4 (i) Feather key (ii) Woodruff key Draw the half-sectional view from the front, and view from the side of a (b) cotter joint with sleeve used to connect two rods of 60 mm diameter each. 10 Describe the ways in which a riveted joint may fail. What are the steps 3. required to prevent the failures? Illustrate your answer with neat sketches. 7 Sketch two views of a single riveted butt joint, with two cover plates for (b) 10 mm thick plates. 7 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. Draw the conventional representation of Bevel Gear. 7

P.T.O.

- 5. The details of a connecting rod for a gasoline engine are given below in Figure 1.

 18+10=28
 - (a) Front view in full section
 - (b) Right side view

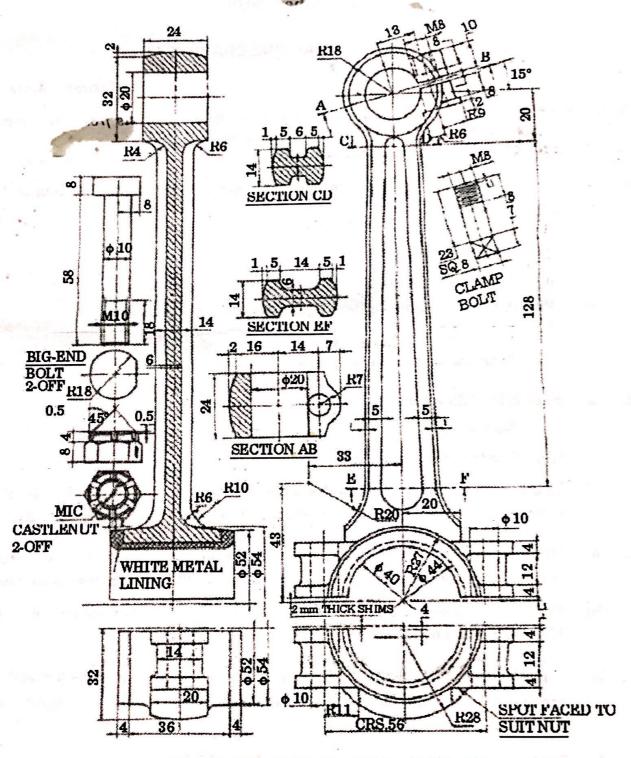


Figure 1