# (pages-2) MODEL QUESTION PAPER

### University of Kerala

Fourth Semester B. Tech. Degree Examination, April/May 2015

(2013 Scheme)

## **13.406 MACHINE DRAWING (M)**

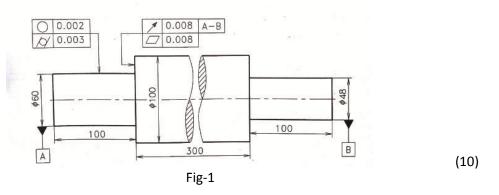
Time : 4 Hours

Max. Marks: 100

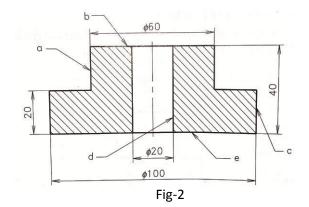
Answer any TWO questions from Part-A and ALL questions from Part-B

### PART –A

- I. a) Find the dimensions of the hole and shaft for a given clearance fit using hole basis system and show the limit diameter on a schematic diagram. Basic size of shaft is 50mm, minimum clearance is 0.05mm, tolerance of the hole is 0.062mm and tolerance on shaft is 0.039mm. (10)
  - b) Drawing of a shaft with bearing surface is given in Fig-1 . Interpret the meaning of the geometrical tolerances given, after copying the drawing.



c) Sectional view of a flange is given in Fig-2. Copy the drawing and indicate the surface finish as given below using roughness grade number: Surface a to 1.6mm, Surface b to 3.2mm, Surface c to 6.3mm, Surface d to 0.8mm and Surface e to 3.2mm.



(10)

#### PART-B

II. A lever safety valve has the part details as shown in Fig-3. Prepare the following<br/>assembled views. i) Elevation left half in section, ii) Plan.(80)

