

Code: 9A03303

R09

B.Tech II Year II Semester (R09) Supplementary Examinations December/January 2015/2016

MACHINE DRAWING

(Mechatronics)

Time: 4 hours

Max. Marks: 70

Answer all sections

All answers should be on drawing sheet only.

Answers on the drawing sheet only will be evaluated.

First angle projection to be adopted.

Section – I

(Answer any two questions, 02 x 4 = 8 Marks)

- 1 Sketch the conventional representation of the following materials:
 - (a) Cast iron.
 - (b) Wood.
- 2 Sketch the conventional representation of a helical gear.
- 3 Sketch the method of dimensioning chamfers & countersinks.

Section – II

(Answer any two questions, 02 x 10 = 20 Marks)

- 4 Draw the sectional front view and top view of a Knuckle joint to fasten two circular rods of each 20^ϕ mm.
- 5 Sketch the sectional view from front and side view of a Butt-Muff coupling for connecting shafts of diameter each 25 mm.
- 6 Sketch a stud bolt and nut assembly to join a plate of 8 mm thick to a machine block. Choose nominal diameter of stud 12 mm.

Section – III

(Compulsory question, 01 x 42 = 42 Marks)

- 7 Assemble the parts of a steam engine cross head shown below and draw (i) Half sectional view from the front with bottom half in section. (ii) View from above.

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