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Code No: 155SK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, March - 2021

MACHINE DRAWING AND COMPUTER AIDED GRAPHICS

(Mechanical Engineering - Mechatronics)

Time: 3 hours

Max. Marks: 75

Answer any TWO questions from Part-A

Part-B is Compulsory

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**Note:** Part A Consists of 4 Questions out of which 2 questions have to be answered Carrying 10 marks each. Part B consists of only one question on Assembly drawing with no choice consisting of 45 marks.

**PART - A**

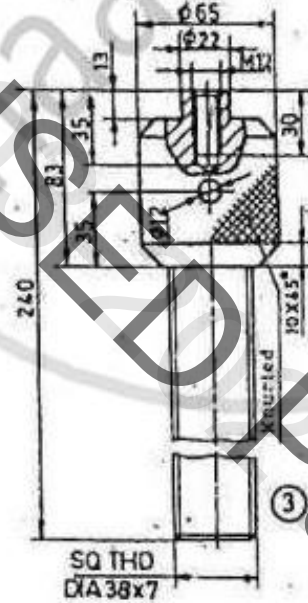
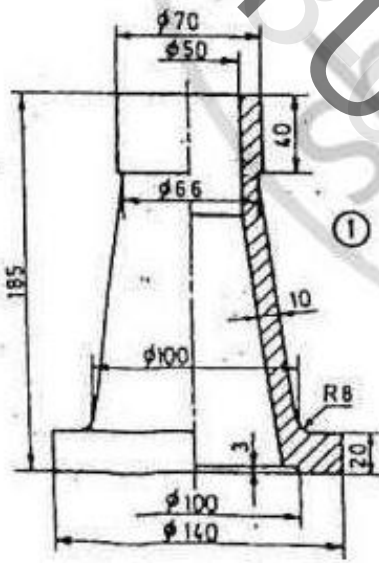
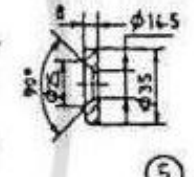
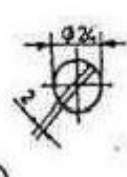
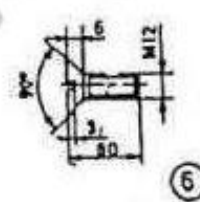
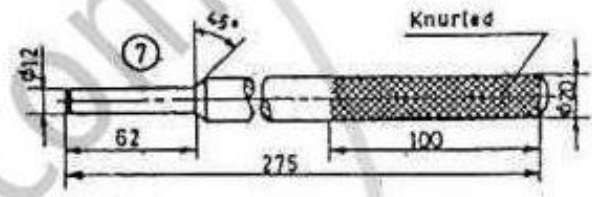
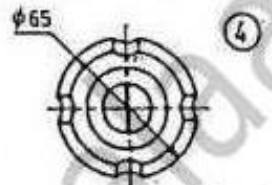
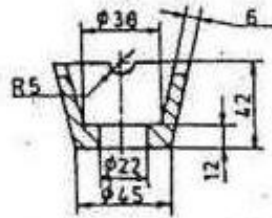
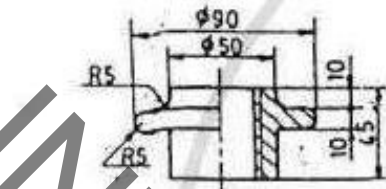
**(30 Marks)**

- 1.a) Draw three views of a hexagonal nut a 24 mm diameter bolt, according to standard dimensions.
- b) Draw the following to indicate conventional representation of (i) BSW thread having pitch of 50 mm and (ii) Acme thread having pitch of 60 mm. Show atleast 3 threads in section. [15]
2. Draw (a) sectional view from the front, and (b) view from above, of a double riveted, double strap, chain butt joint, to join plates of thickness 10 mm. [15]
3. Draw the sectional front view and side view of Oldham coupling to connect two shafts of 25 mm diameter each, with their axes offset by 4 mm. [15]
4. Sketch neatly two views of a footstep bearing for supporting a vertical shaft of 50 mm diameter. Show the important dimensions. [15]

**PART - B**

**(45 Marks)**

5. Figure shows the details of Screw jack. Draw the assembly as follows:
  - a) Left Half sectional front view,
  - b) Left hand Side view.All dimensions are in mm. [25+20]



Parts list

Part No.	Name	Matl	Qty
1	Body	CI	1
2	Nut	GM	1
3	Screw	MS	1
4	Cup	CS	1
5	Washer	MS	1
6	Screw	MS	1
7	Tommy bar	MS	1

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