Code No: R1921036 **R19** SET - 1

II B. Tech I Semester Regular Examinations, March - 2021
MACHINE DRAWING
(Mechanical Engineering)

Time: 3 hours Max. Marks: 75

Note: Part A: Answer any TWO of the following questions:
PART-B is compulsory.

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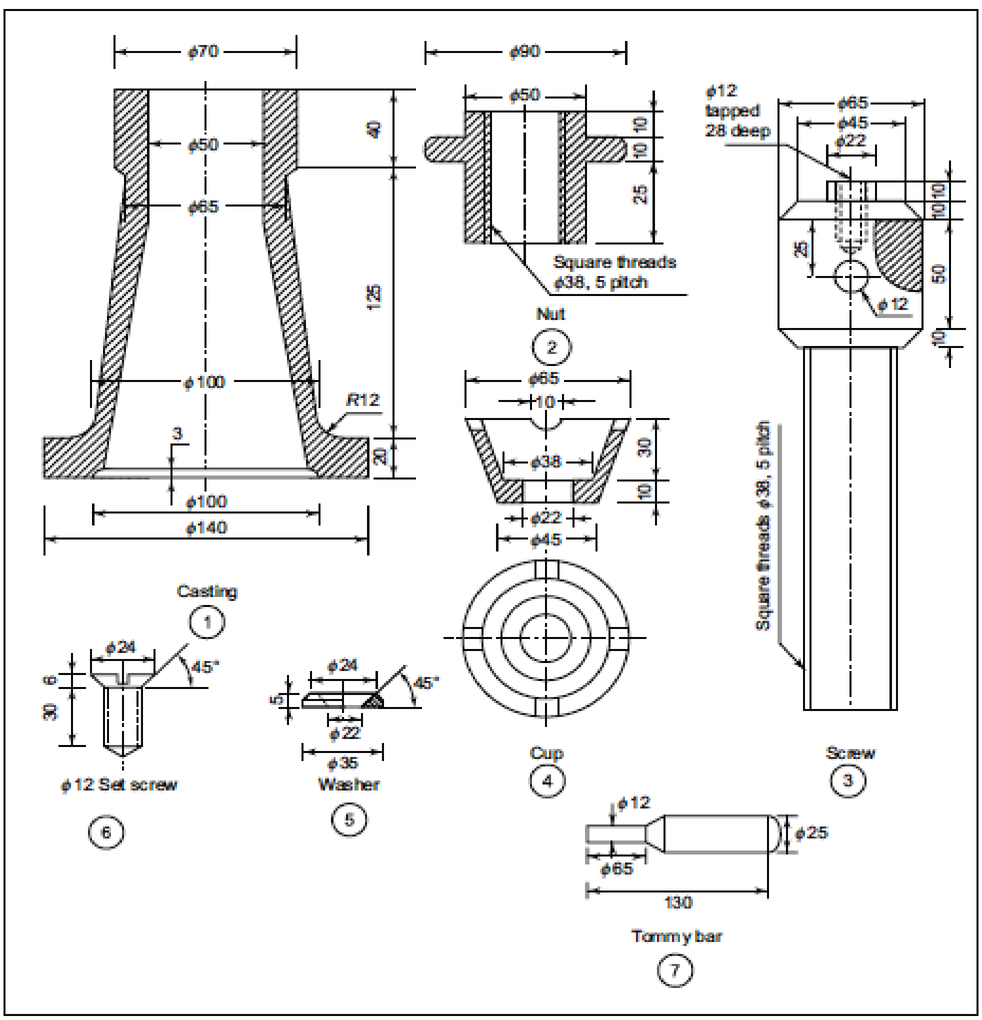
(12.5M×2=25M)

PART-A

1. Draw internal square threads for a diameter of 50 mm. Show at least 6 threads in schematic method. (12.5M)
2. Draw a double riveted lap joint for plate thickness of 16 mm with zigzag riveting. (12.5M)
3. Sketch the necessary views of a foot-step bearing, for supporting a shaft of diameter 50mm. (12.5M)

PART-B

4. Draw the following assembled views of a screwjack to a suitable scale. (50M)
   (a) Sectional front view (b) Side view (c) Top view.
   Also include a bill of material. All the dimensions are in mm only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II B. Tech I Semester Regular Examinations, March - 2021
MACHINE DRAWING
(Mechanical Engineering)

Time: 3 hours Max. Marks: 75

Note: Part A: Answer any TWO of the following questions:
PART-B is compulsory.
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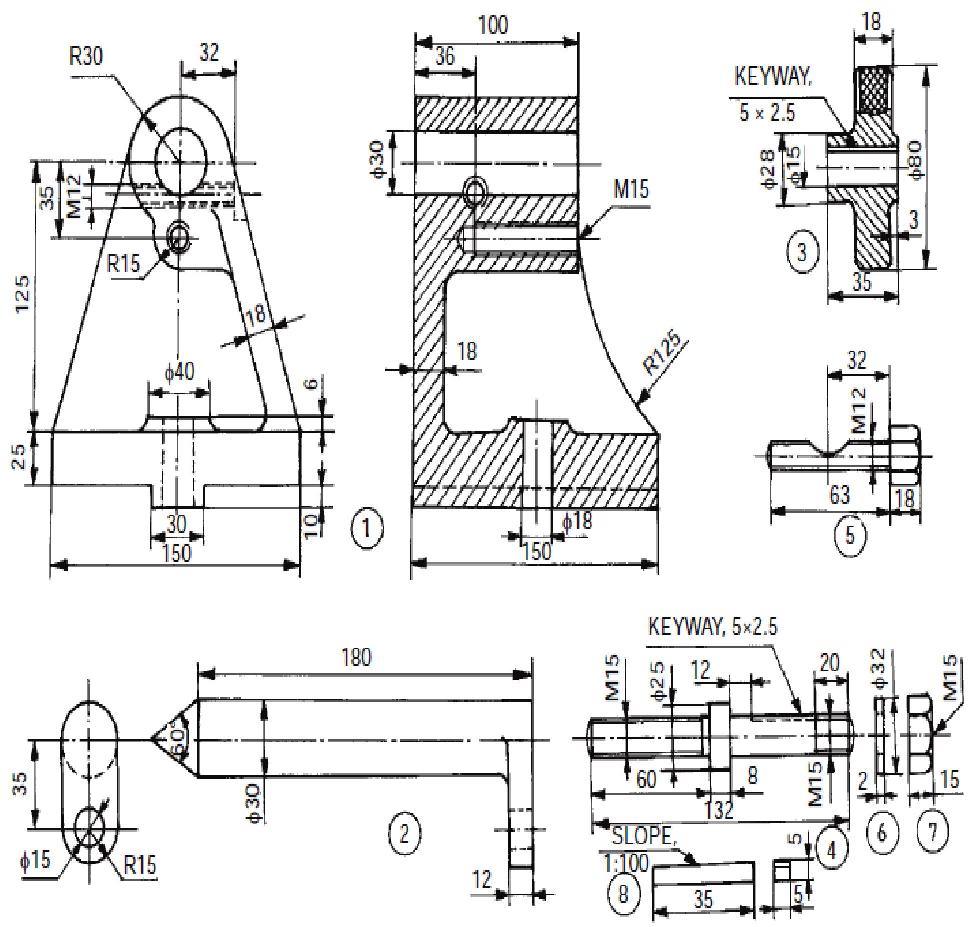
(12.5M×2=25M)

PART-A

1. Draw 8 turns of M25 thread with square threads in schematic method. (12.5M)
2. Draw front view, side view and sectional top view of knuckle joint for a rod size of 25 mm (12.5M)
3. Draw a sectional front view and side view of a rigid type flange coupling for a shaft diameter of 30 mm. (12.5M)

PART-B

4. Assemble the parts of the milling machine tail-stock, shown in the following figure and draw, (i) sectional view from the front and (ii) view from the right (50M)
Also include a bill of material. All the dimensions are in mm only.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Code No: R1921036 **R19** SET - 3

II B. Tech I Semester Regular Examinations, March - 2021
MACHINE DRAWING
(Mechanical Engineering)

Time: 3 hours Max. Marks: 75

Note: Part A: Answer any TWO of the following questions:
PART-B is compulsory.
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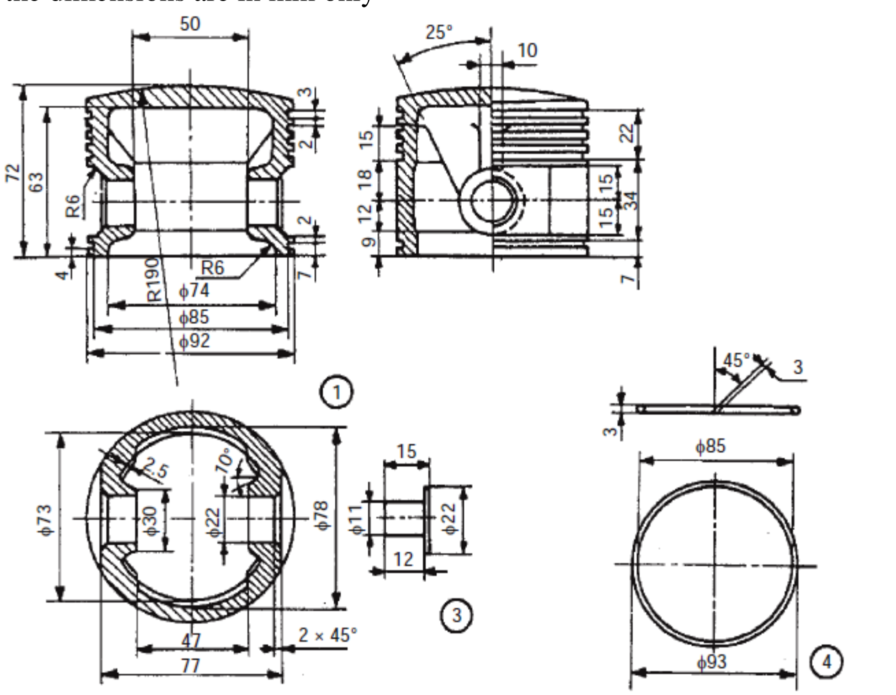
(12.5M×2=25M)

PART-A

1. Draw front, side and top view of a hexagonal bolt of diameter 24 mm and length 100 mm along with its nut and washer. (12.5M)
2. Draw a flat saddle key, rectangular taper key, and single head screw key for shaft diameter of 50 mm. (12.5M)
3. Sketch the required views of Oldham coupling used to connect two shafts, each of diameter 30 mm. (12.5M)

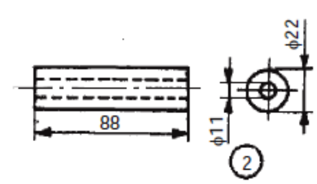
PART-B

4. Assemble the parts of the piston, shown in the following figure and draw the following views: (50M)
(i) Sectional view from the front,
(ii) Half sectional view from the left, and
(iii) Sectional view from above
All the dimensions are in mm only



Parts list

No.	Name	Matl	Qty
1	Piston	Al-alloy	1
2	Piston pin	HCS	1
3	Piston pin plug	HCS	2
4	Piston ring	CI	5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Code No: R1921036 **R19** SET - 4

II B. Tech I Semester Regular Examinations, March - 2021
MACHINE DRAWING
(Mechanical Engineering)

Time: 3 hours Max. Marks: 75

Note: Part A: Answer any TWO of the following questions:
PART-B is compulsory.

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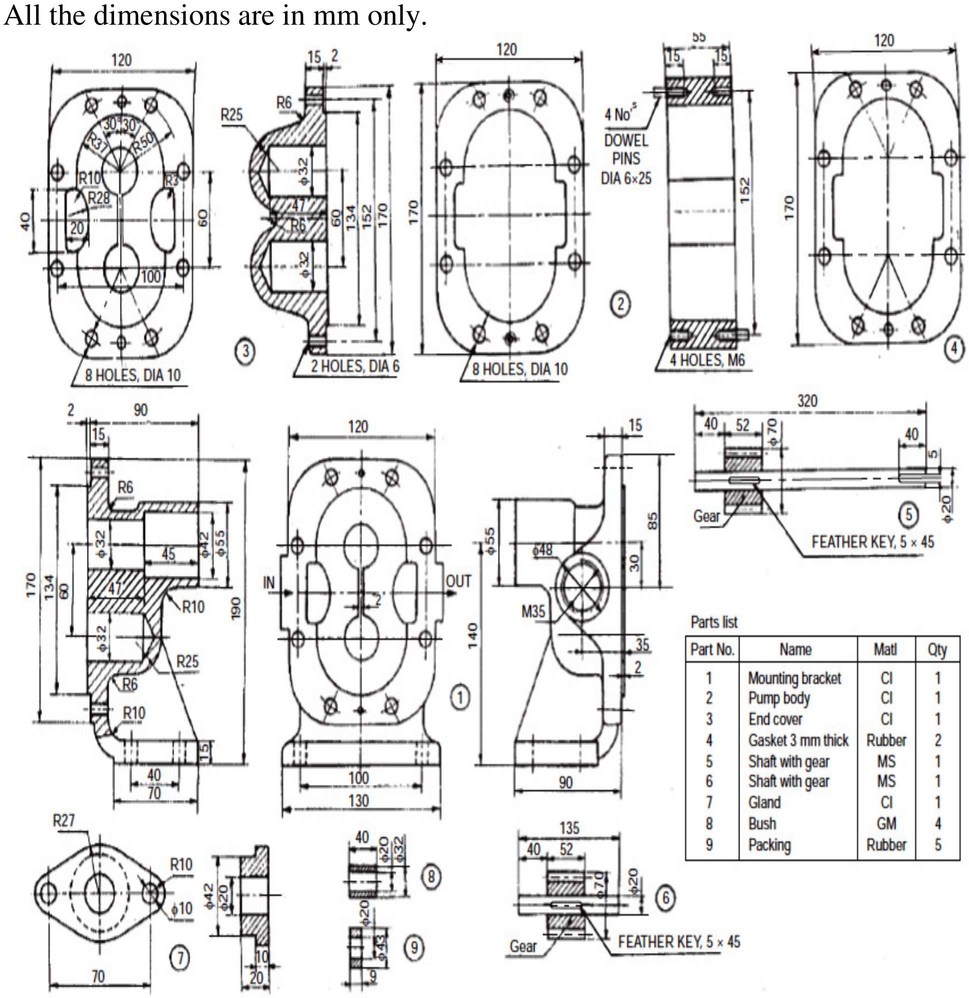
(12.5M×2=25M)

PART-A

1. Draw three views of a 24 mm diameter stud, 120 mm long, with a hexagonal nut and a split pin. (12.5M)
2. Draw the two views of a cotter joint for joining two 30 mm diameter rods. Mention the necessary dimensions in the drawing. (12.5M)
3. Draw the half sectional front view and side view of bushed pin type flange coupling to connect two shafts each of diameter of 40 mm. (12.5M)

PART-B

4. Assemble the parts of the rotary gear pump, shown in the following figure and draw, (i) sectional view from the front and (ii) view from the right. (50M)
All the dimensions are in mm only.



Part No.	Name	Matl	Qty
1	Mounting bracket	CI	1
2	Pump body	CI	1
3	End cover	CI	1
4	Gasket 3 mm thick	Rubber	2
5	Shaft with gear	MS	1
6	Shaft with gear	MS	1
7	Gland	CI	1
8	Bush	GM	4
9	Packing	Rubber	5
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