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Total No. of Questions : 09] [Total No. of Pages : 04

B.Tech. (Sem. - 3rd)

MACHINE DRAWING

SUBJECT CODE : ME - 207

Paper ID : [A0804]

[Note : Please fill subject code and paper ID on OMR]

Time : 04 Hours **Maximum Marks : 60**

Instruction to Candidates:

1) Section - A is **Compulsory**.
2) Attempt any **Four** questions from Section - B.
3) Attempt any **Two** questions from Section - C.

Section - A

Q1) *(10 × 2 = 20)*

a) Draw the sketch of five types of lines used in machine drawing?

b) Sketch the convention of a round section?

c) Draw the symbol of third angle projections?

d) The root angles in BIS metric thread and BSW threads are respectively _____and_____?

e) Name two head forms of rivets?

f) What is difference between pitch and lead?

g) What are the functions of connecting rod in IC engines?

h) Mention various types of bearings?

i) Draw the free hand sketch of hexagonal bolt.

j) Draw a symbol of fillet welding?

Section - B

(4 × 5 = 20)

Q2) What are the different types of machine drawing? Explain Production drawing in detail.

Q3) Represent two views of hexagonal nut and square nut with proportions and dia of bolt as 30mm.

Q4) Draw free hand the sectional front view and right side view of the protective flanged coupling.

Q5) Draw to scale 1:1, the standard profile of a METRIC SCREW THREAD (external), taking an enlarged pitch = 50 mm. Give all the standard dimensions.

Q6) Two steel plates, each 12 mm thick are jointed by a single riveted lap joint. Draw two views to full size. Show 4 rivets and section line in plan.

Section - C

(2 × 10 = 20)

Q7) Figure 1 shows flanges, keys and shafts to be connected in a flange coupling, Assemble and draw elevation and side view in full. Note that nuts and bolts are to be added.

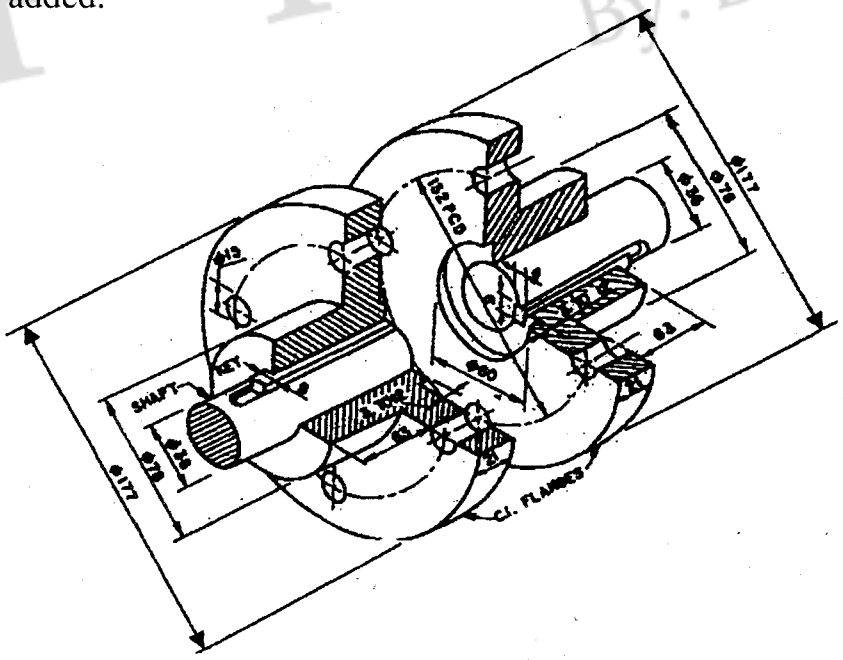

Figure 1

Q8) Draw the sectional top view and front view of the petrol engine connecting rod from the given figure 2 and part list

Part List

Part No.	Name	Material	Quantity
1	Rod	Forged steel	1
2	Cap	Forged steel	1
3	Bearing brass	Gun metal	2
4	Bearing bush	Phosphor bronze	1
5	Bolt	Medium carbon steel	2
6	Nut	Medium carbon steel	2

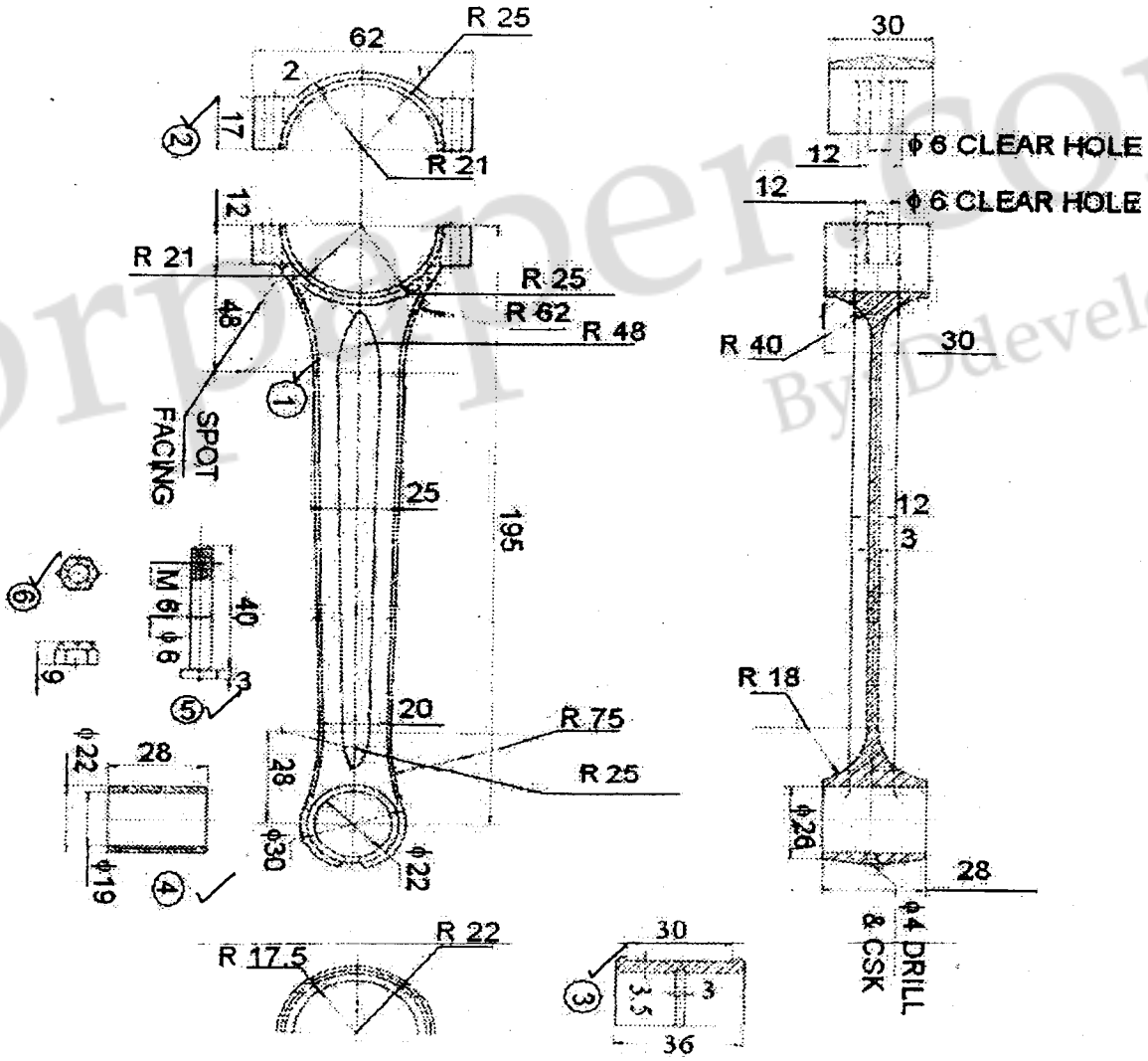

FIGURE-2

Q9) Figure 3 shows the pictorial view of a FOOT STEP BEARING. Draw to a conventional scale the following :

(a) Full sectional front view.

(b) Top View.

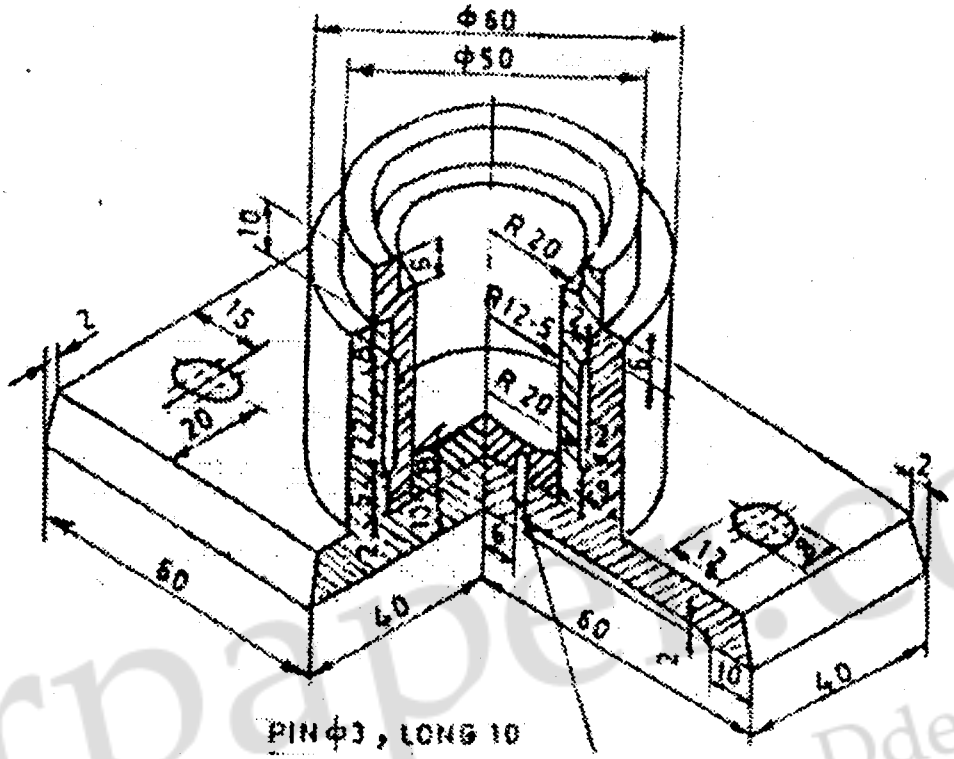

Figure-3

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