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Roll No. Total No. of Pages: 03

Total No. of Questions: 08

B.Tech.(AE)/(ANE)/(IE)/(ME) (ALL) (Sem.-3)

MACHINE DRAWING Subject Code: ME-207

Paper ID: [A0804]

Time: 4 Hrs. Max. Marks: 60

### **INSTRUCTION TO CANDIDATES:**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C is COMPULSORY carrying TWO questions of TEN marks each.
- 4. First angle projection to be used.
- 5. You may assume any missing dimension.

### **SECTION-A**

## 1. Write briefly:

- a) With suitable sketch, explain the method of dimensioning of (i) circle (ii) Arc.
- b) Draw conventions for (i) internal threads (ii) rubber.
- c) What is difference between allowance and tolerance?
- d) What do you understand by (i) length of weld (ii) size of weld?
- e) What is advantage of castle nut over common hexagonal nut?
- f) What do you understand by flexible coupling?
- g) What is expansion joint?
- h) What is function of blow off cock?
- i) Write two common materials which are used for making bushes.
- j) What is a stud?

### **SECTION-B**

- 2. Draw profile of BSW threads by taking pitch of 20 mm. Represent calculations and show dimensions on the drawing.
- 3. Draw free hand front view of muff coupling.
- 4. Draw free hand sketch of single plate friction clutch.
- 5. Draw two views of a hexagonal nut. Take diameter as 15 mm.
- 6. Discuss the following commands of Auto CAD. (i) Break (ii) Trim (iii) Extrude

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# **SECTION-C**

- 7. Assemble the parts of a Connecting rod given in **Fig. 1** and draw the following views :
  - (i) Elevation
  - (ii) Top view (full section).

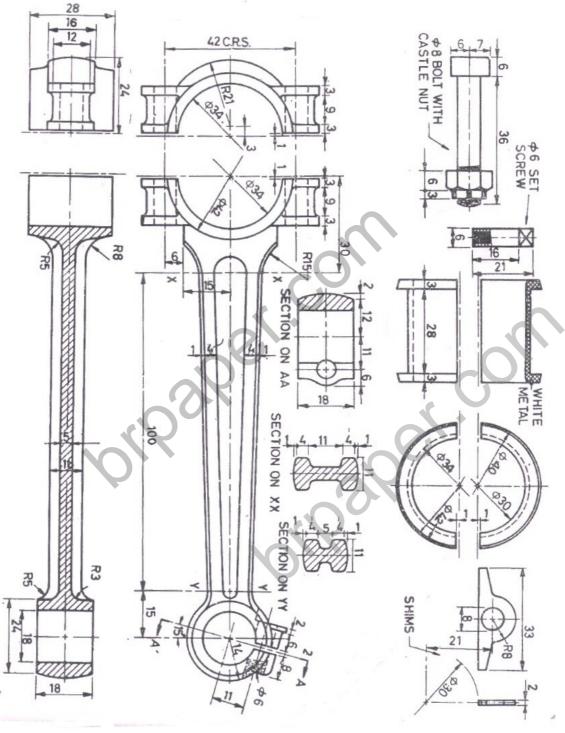


Fig. 1 Petrol engine connecting rod

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- 8. Assemble the parts of a crane hook given in **Fig. 2** and draw the following views:
  - (i) Elevation full in section
  - (ii) Side view.

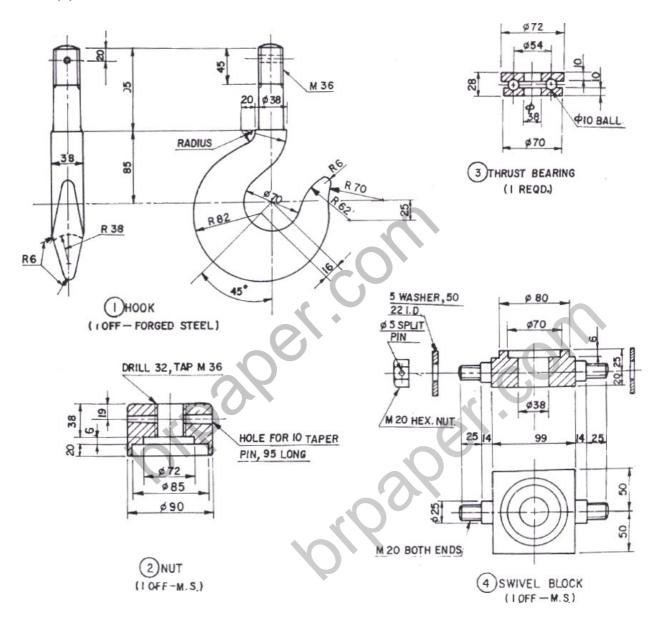


Fig. 2

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