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337352 (37)

BE (3rd Semester)

Examination, April-May, 2014

Branch : Mechanical Engineering

MACHINE DRAWING (NEW)

Time Allowed : Four Hours

Maximum Marks : 80

Minimum Pass Marks : 28

Note : (i) Answer all questions.

(ii) All answer must be given on drawing sheet only.

(iii) Credit will be given for good line work and neat drawing.

(iv) Use proper conventions.

(v) All dimensions are in mm.

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UNIT - I

Q. 1. (a) Draw the conventional representation of the following machine components : 5

(i) Leaf spring with eye

(ii) Diamond khurling

(iii) Serrated sharf

(iv) Coil spring (compression type) with square section

(v) Disc spring

(b) Draw the welding symbols for following welds : 5

(i) Single V – butt

(ii) Single bevel butt with flush finish

(iii) Single U butt

(iv) Double J butt

(v) Fillet

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(c) Draw the conventional representation of the following geometrical tolerance : 3

(i) Parallelism

(ii) Cylindricity

(iii) Symmetry

(d) Draw the roughness symbols for the following roughness values : 3

(i) 25 μm

(ii) 6.3 μm

(iii) 0.8 μm

UNIT - II

Q. 2. Draw the following orthographic views of the object as shown in fig - 2 (a) below :

(i) Front view from arrow X - direction 7

(ii) Top view 5

(iii) Right side view 4

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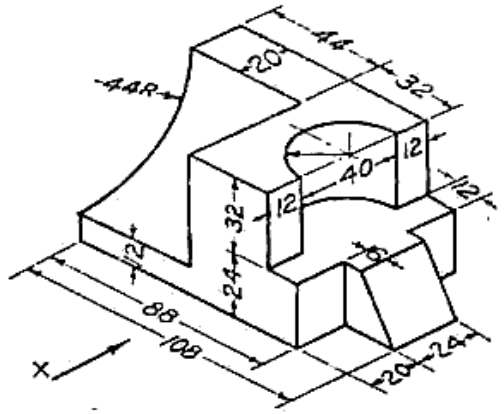

Fig. 2(a)

Or

Draw the sectional views of the object as shown in fig.-2 (b) below :

(i) Sectional front view 7

(ii) Top view 5

(iii) Side view from the left 4

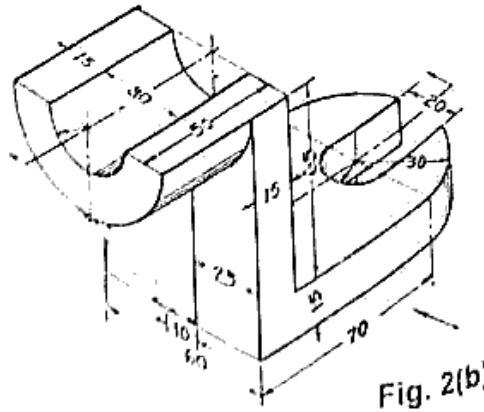

Fig. 2(b)

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UNIT - III

Q. 3. Draw three views of a Hexagonal Headed bolt 24 mm diameter and 100 long, with a hexagonal nut and washer. **6+6+4**

Or

Draw two orthographic views of a single rivetted butt joint with double straps. Take the thickness of the butting plates as 12 mm and nominal diameter of rivet as 20 mm. **8+8**

UNIT - IV

Q. 4. You have been supplied with the detail drawing of different parts of KNUCKLE JOINT. Assemble all parts and draw the following views of the assembly in scale full size :

(i) Front view, top half in section **12**

(ii) Top view, and **12**

(iii) Left side view **08**

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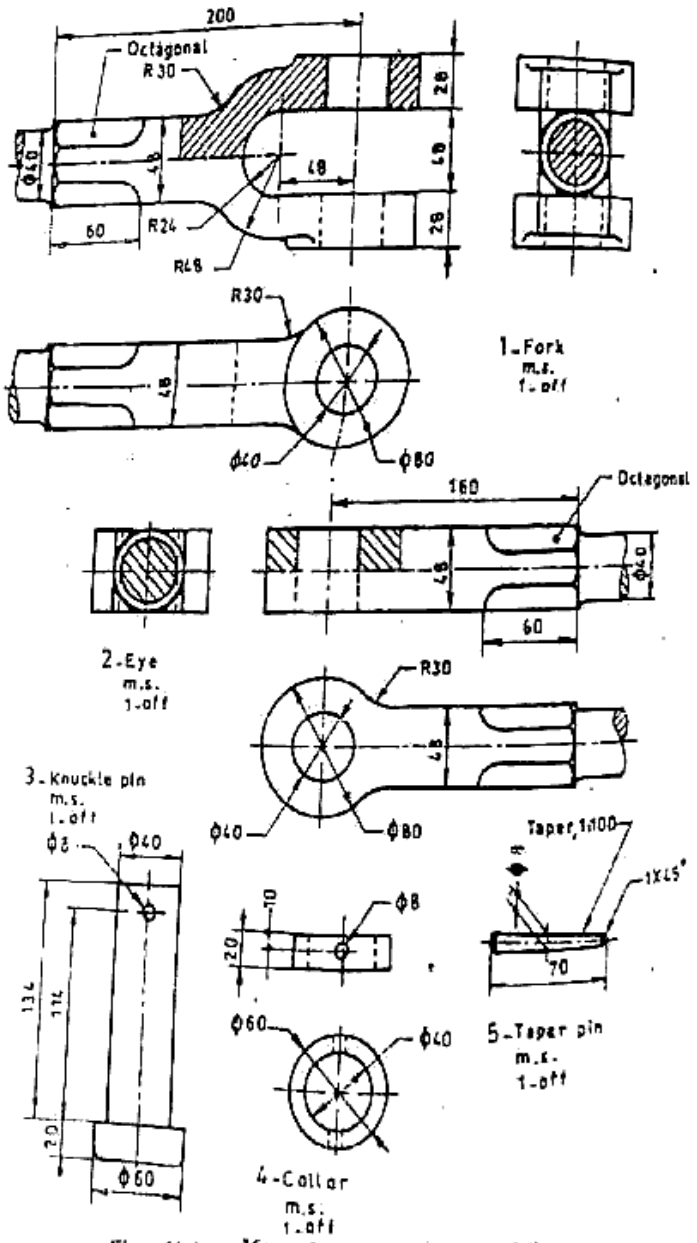

Fig.- 4(a) Knuckle Joint (Details).

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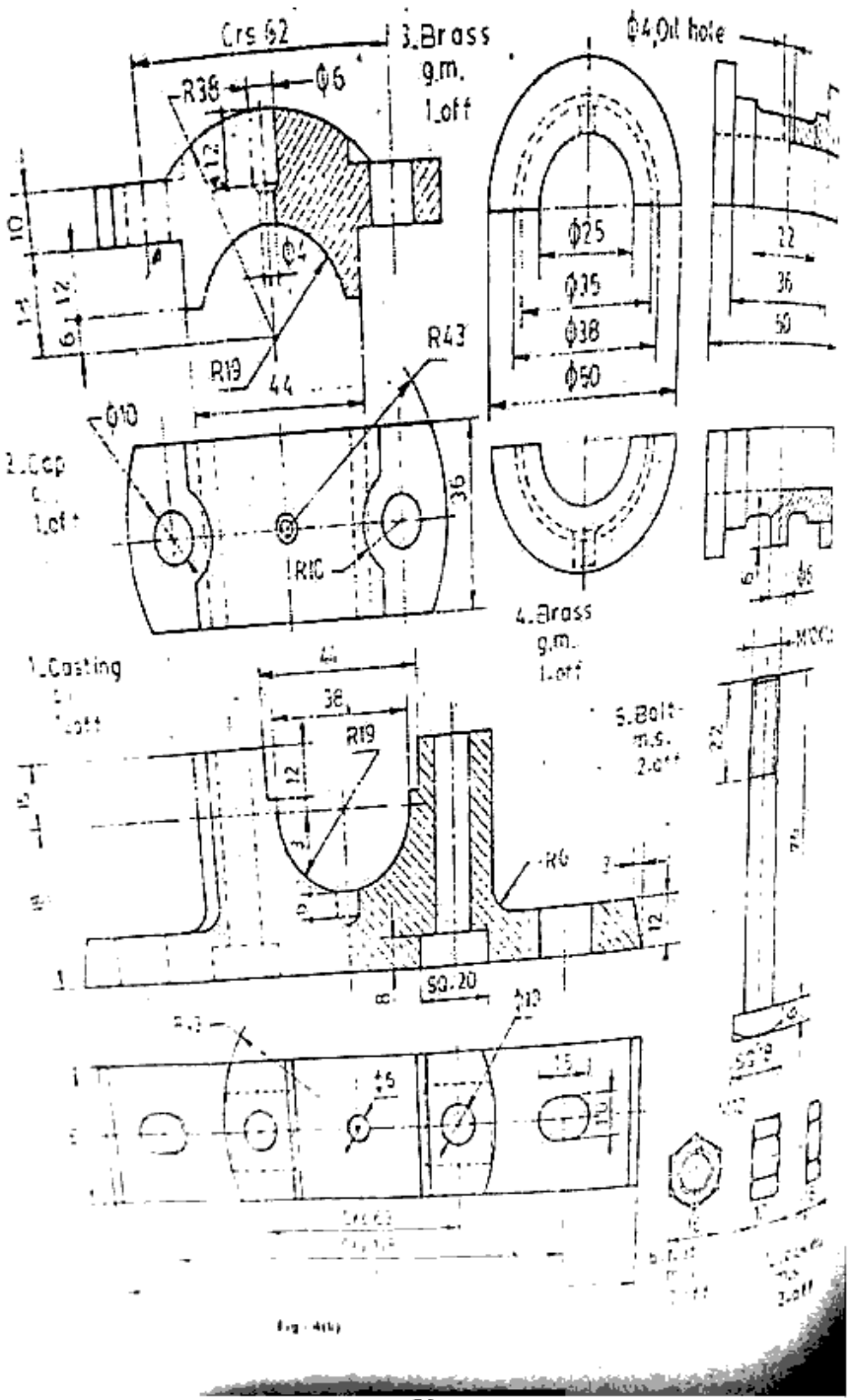
OR

Figure - 4(b) Shows the details of components/parts of a 25 mm diameter PLUMMER BLOCK. Assemble the details and draw the following views of assembly in scale full size :

(i) Front view – right half in section **16**

(ii) Top view – right half in section **10**

Also prepare the parts list and bill of material. **6**



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