ISC QUESTION PAPER

2024

ISC SUDY MATERIAL

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GEOMETRICAL AND MECHANICAL DRAWING

Maximum Marks: 80
Time Allowed: Three Hours

*(Candidates are allowed **additional 15 minutes** for **only** reading the paper.*
*They must **NOT** start writing during this time.)*

All dimensions are in millimeters.
Arcs of circles less than 4mm radius may be drawn freehand.

*Candidates are required to attempt all questions from **Section A** and all questions **EITHER** from **Section B OR Section C**.*

The intended marks for questions or parts of questions are given in brackets [ ].

SECTION A – 25 MARKS

Question 1 **[25]**

Figure 1 given below shows a machine block. Draw the Front View, Top View and Side View by using first or third angle method of projection. Also, draw the symbol of method of projection which you have chosen.

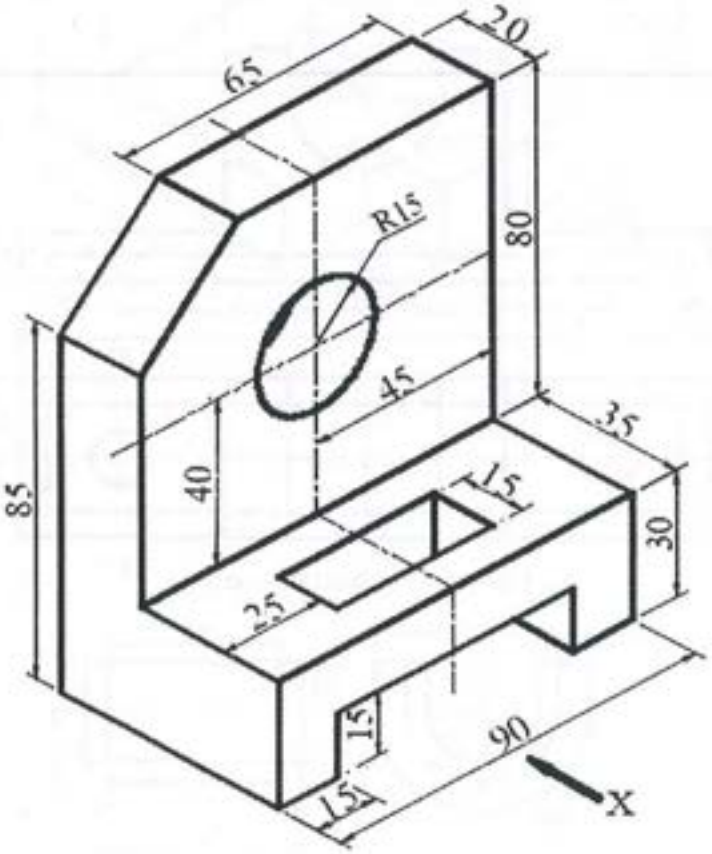


Figure 1

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SECTION B – 55 MARKS

Question 2

(i) ***Figure 2*** given below shows the details of the components of an open bush bearing assembly used for supporting a (stationary/ rotating) circular shaft without causing damage to the main body.

The bush (part 2, qty.1) is placed in the semi-circular cavity of the main body (part 1, qty, 1) having the radius of 21 mm. The thin part at the two ends of the bush (part 2, qty.1), having the radius of 30 mm remains outside the semi-circular cavity of the main body(part 2, qty 1).

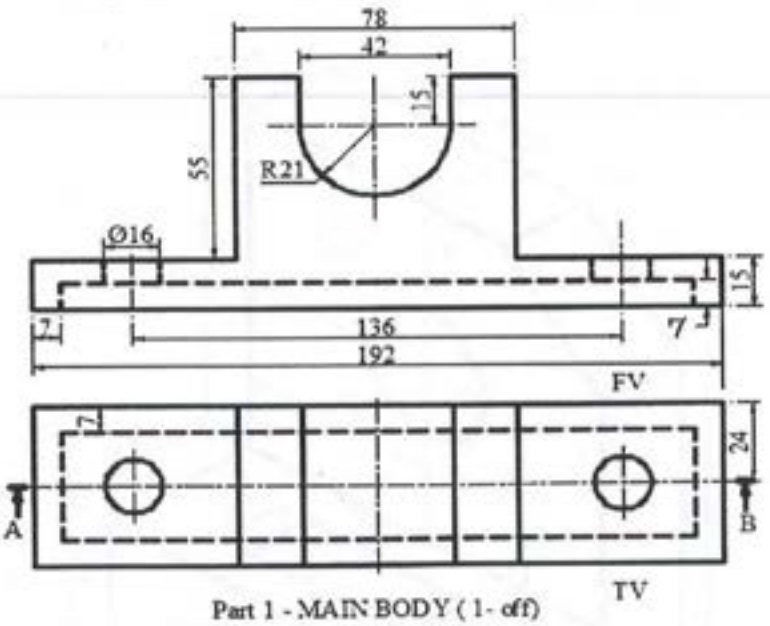
This provides a locking arrangement to the bush and the main body.

(a) Draw full size sectional elevation along A-B of the assembled components. **[25]**

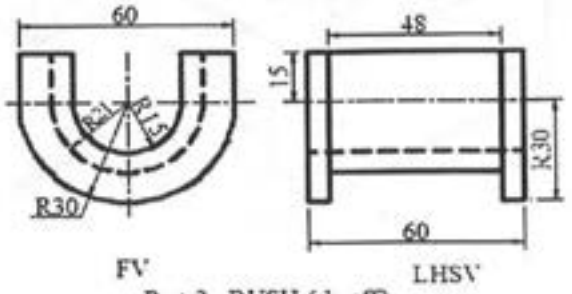
(b) Draw the plan (Top View) of the complete assembly omitting all hidden details. **[10]**

(c) Draw the Left-hand Side View of the assembly omitting all hidden details. **[10]**

(d) Make a neat parts list for all the components on your drawing sheet. **[10]**



Part 1 - MAIN BODY (1- off)



Part 2 - BUSH (1- off)

Figure 2

SECTION C – 55 MARKS

Question 3

(i) ***Figure 3*** given below shows the isometric view of a machine block. Copy the isometric view. **[20]**

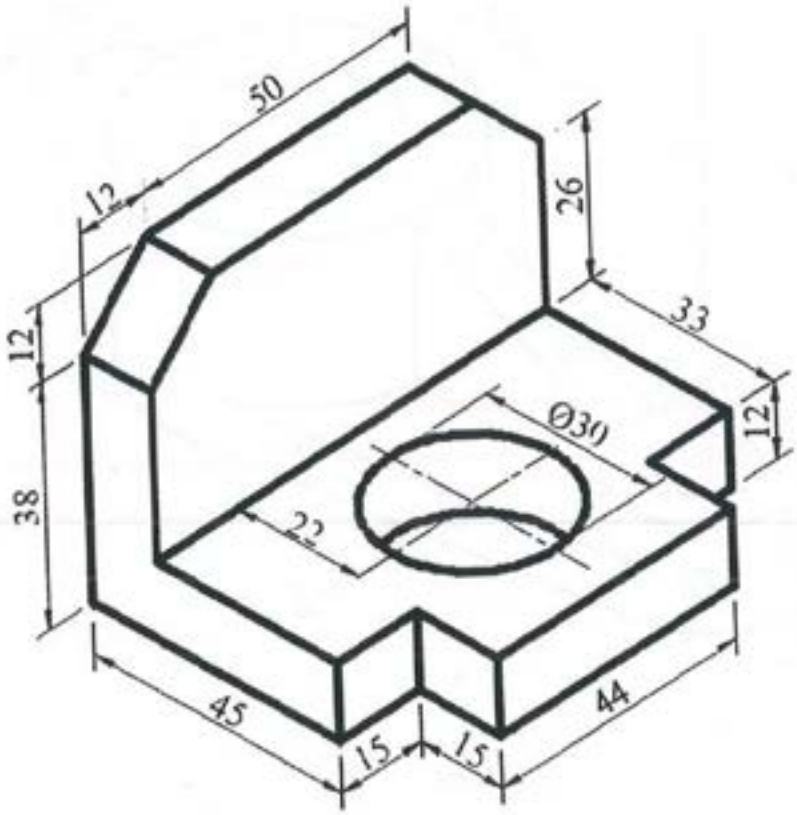


Figure 3

(ii) ***Figure 4*** given below shows the machine block. Draw Sectional Front View (along A-B) and Top View by using first or third angle method of projection. **[20]**

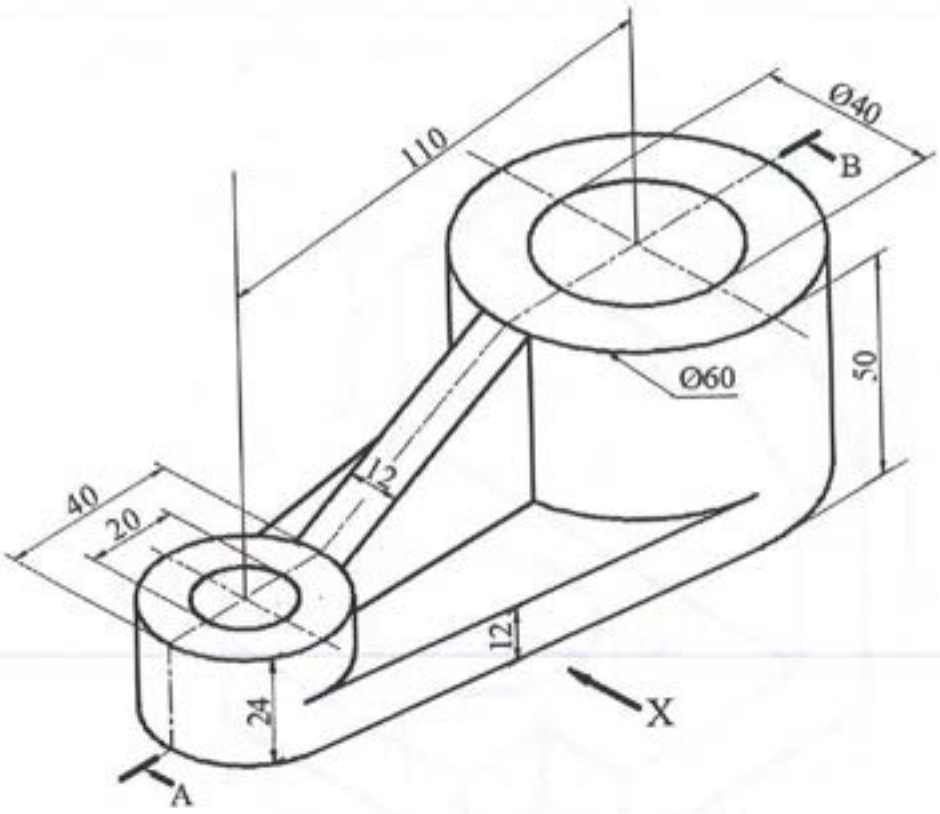


Figure 4

(iii) ***Figure 5*** given below shows the Top View of a hexagonal base **pyramid** in first angle method of projection. Copy the given figure. Complete the Front View and draw the Front View and Top View if the axis of the pyramid is inclined at 30° to Horizontal Plane and Top View of the axis is inclined at 45° to Vertical Plane. **[15]**

Given:
Axis height = 60 mm

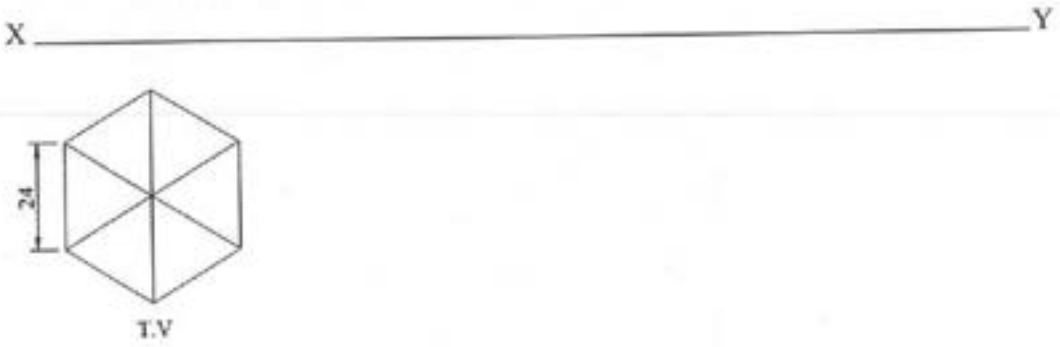


Figure 5

CISCE STUDY MATERIAL

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INFORMATION
1 Time Table
2 Result
3 Syllabus

OTHER RESOURCES
Maps of India, Maps of World
Writing Skill Formats
Periodic Table

BOOKS

- ICSE Class 10 Prescribed Books
- ISC Class 12 Prescribed Books
- ISC Class 12 Project Work

CLASS	STUDY MATERIAL
9	Specimen Paper
10	Specimen Paper
11	Specimen Paper
12	Specimen Paper
10	Question Paper
12	Question Paper
9/10	Lab Manuals
11/12	Lab Manuals

ENTRANCE EXAMS

JEE Main	CLAT	CUET UG
JEE Advanced	NEET UG	Fashion & Design