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THE OPEN UNIVERSITY OF SRI LANKA

FACULTY OF ENGINEERING TECHNOLOGY

DIPLOMA IN TECHNOLOGY (LEVEL 03)

FINAL EXAMINATION – 2010

IN

ENGINEERING DRAWING - MEX3234

DATE	**: 02nd MARCH 2011**
TIME	**: 0930 – 1330 HRS**
DURATION	**: FOUR (04) HRS.**

READ CAREFULLY THE FOLLOWING INSTRUCTIONS BEFORE ATTEMPTING TO ANSWER THE QUESTION PAPER

1. Clarify any doubts with the supervisor / invigilator in the examination hall.
2. Question in SECTION A is compulsory. Answer this question and one another of your choice from SECTION B.
3. It is strongly advised to prepare a sketch of the solution on a rough paper, before drawing it on the drawing paper. If you wish, you could attach the sketch to your answer script.
4. Spend approximately three hours for Question 01 and the rest of the time for the other question.
5. Use both sides of the drawing paper.
6. Draw the standard cage, title block, projection symbol, etc. only for the Question 01. (Marks will be deducted if the title block is not properly placed)
7. All construction details, centerlines, etc. should be clearly shown.
8. Candidate is strictly advised to write his/her Index Number, Registration Number and Course Code only on the drawing paper. Do not write your name or provide any other information.

This Question paper consists of five (05) pages.

SECTION A

QUESTION 01

Fig. Q1 shows exploded orthographic views of the following components of a Tool Holder which is used to hold the cutting tools of a lathe machine.

1.	Base Plate	7.	Stud
2.	Tool Holder	8.	Groove Screw (04 Nos.)
3.	Mover	9.	Set Screw (04 Nos)
4.	Spring Washer (04 Nos.)	10.	Spring (04 Nos.)
5.	Knob	11.	Spherical Steel Ball (04 Nos.)
6.	Handle		

Assemble the above components with the Handle of the tool holder (6) positioned to the right hand side of the Mover (3) and draw the following views to a scale of full size in first angle projection.

(a) Sectional Front Elevation on B – B

(b) End Elevation projected to the right of view (a)

(c) Plan projected from view (a).

Your answer should contain ten main dimensions and indicate the symbol of projection, main title, sub titles and scale.

Radii of casting curves may be taken suitably. Assume any missing dimensions.

SECTION B

(Answer only <u>one</u> question)

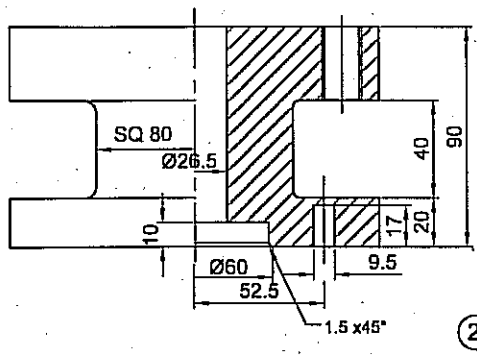
QUESTION 02

Fig. Q2 shows incomplete orthographic views that resulted from intersection of a right circular cone and a horizontal cylinder. Complete the plan and the front elevation.

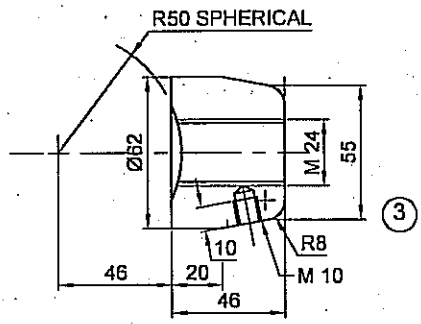
QUESTION 03

Draw the isometric view of the object shown in Fig. Q3, taking the near point as indicated by the arrows shown in the figure. Use isometric scale. Do not show hidden details and dimensions in your answer.

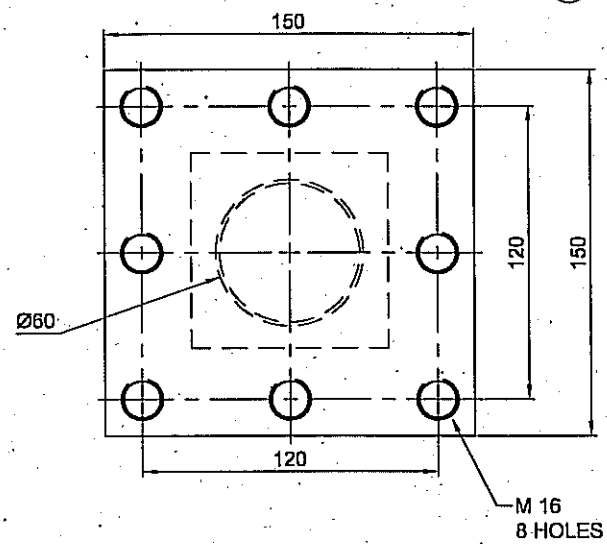
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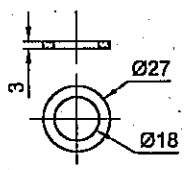


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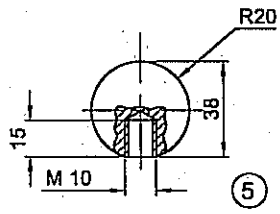


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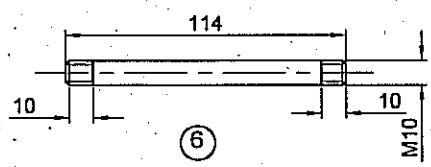




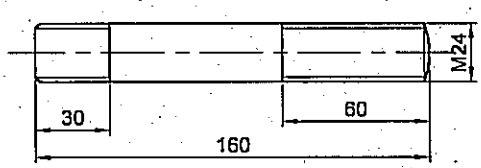
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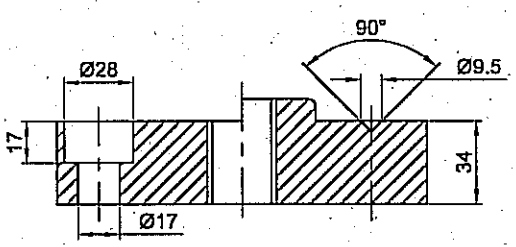
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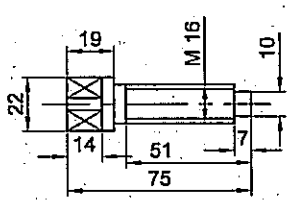
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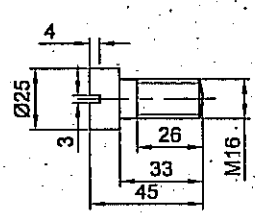
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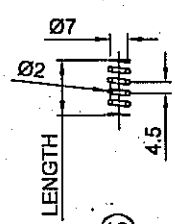
SECTION B-B ①



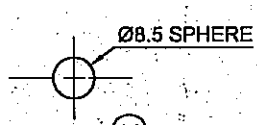
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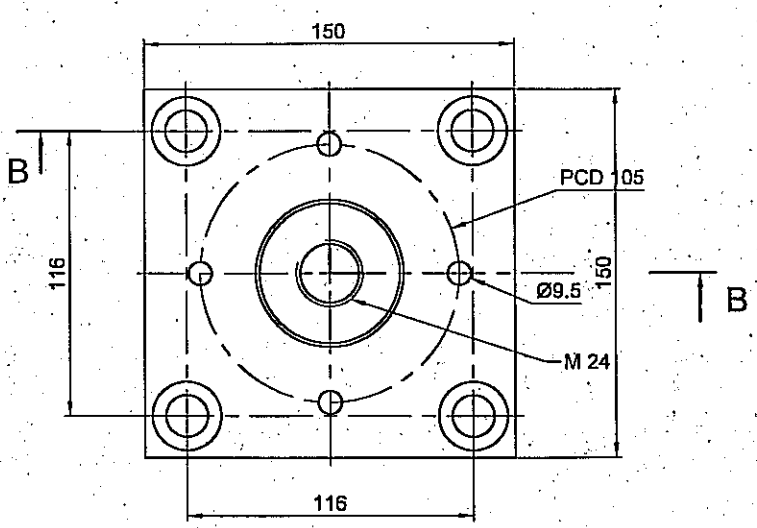
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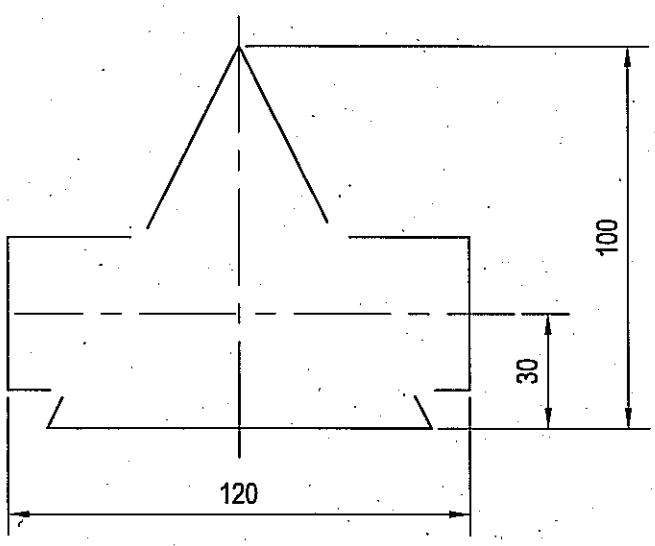


TOOL HOLDER

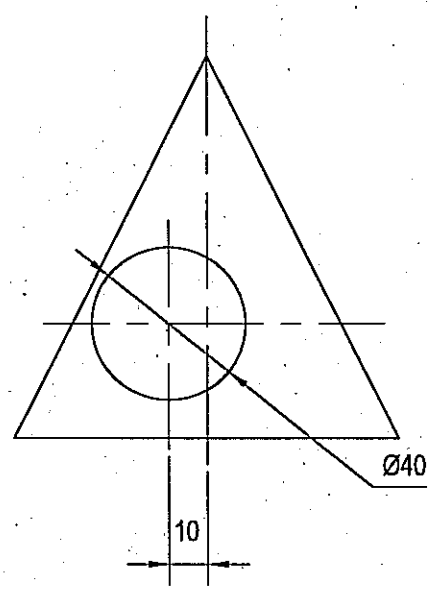
Not to scale

All dimensions in mm

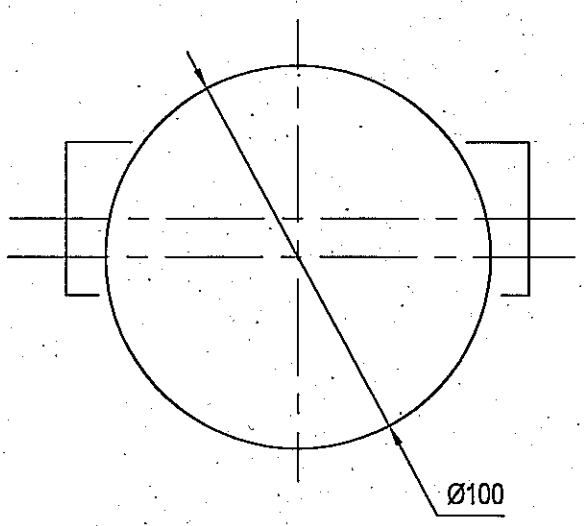
Fig. Q1



FRONT ELEVATION



END ELEVATION

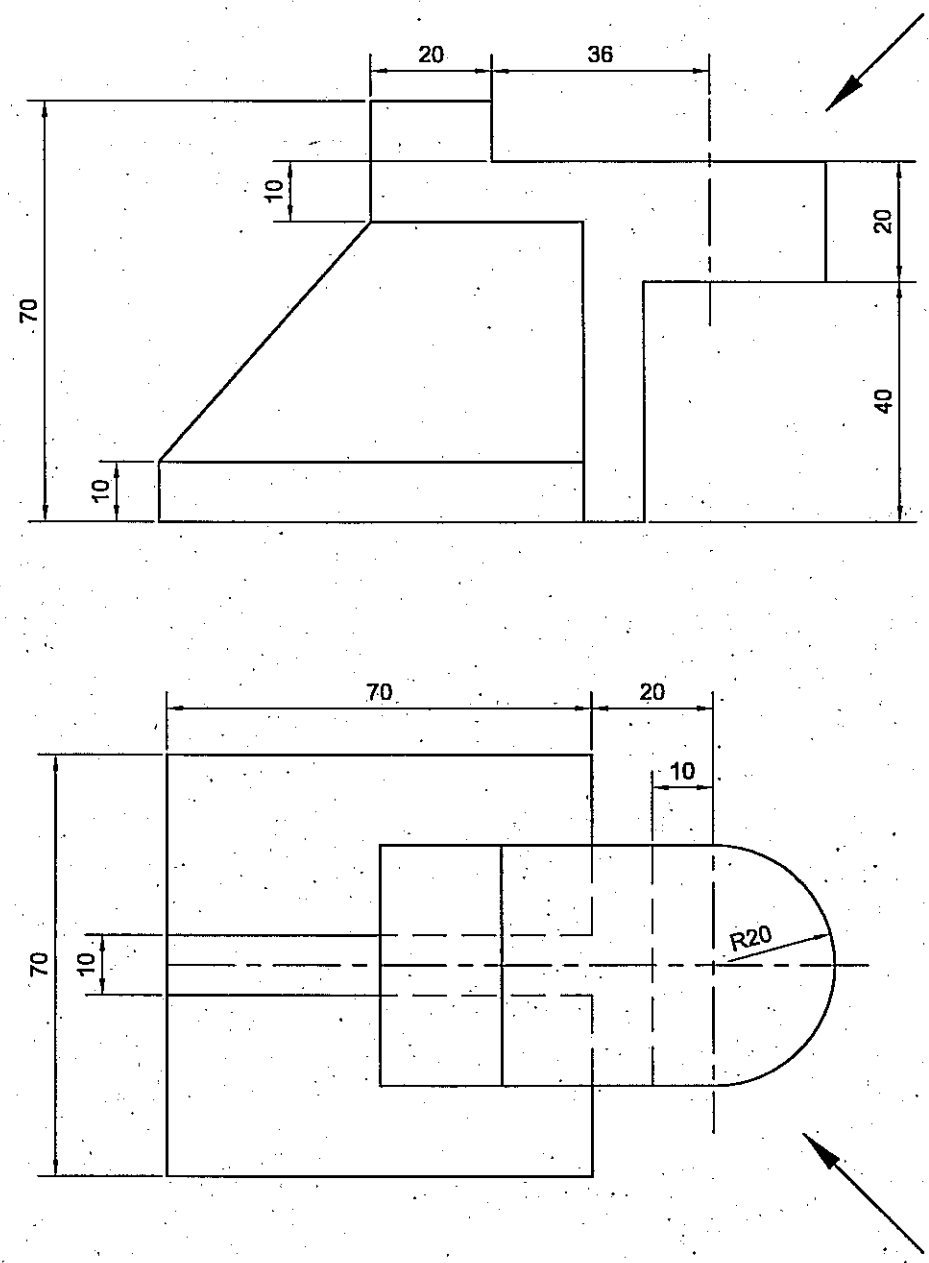


PLAN

ALL DIMENSIONS IN mm

Not to scale

Fig.Q 2



All Dimensions in mm

Not to scale

Fig. Q3