The Open University of Sri Lanka
Faculty of Engineering Technology

Study Programme	:	Bachelor of Technology Honours in Engineering
Name of the Examination	:	Final Examination
Course Code and Title	:	**DMX3534 / MEX3234 - Engineering Drawing**
Academic Year	:	2019/20
Date	:	26th July 2020 (Sunday)
Time	:	0930 hrs – 1330 hrs.
Duration	:	Four (04) hours

General instructions:

(i) Clarify any doubts with the supervisor/invigilator in your examination hall.
(ii) **The Question 01 in Section A is compulsory.** Answer this question and another one of your choice from **Section B.**
(iii) 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.
(iv) **Spend approximately three hours for question 01** and the remaining time for the other question.
(v) Use both sides of the drawing paper.
(vi) Draw the standard cage, Title box, projection symbol, etc. only for question 01. **(Marks will be deducted if the title block is not properly placed)**
(vii) All construction details, centerlines, etc. should be clearly shown.
(viii) You are strictly advised to write your index number, Registration Number and course code only on the drawing paper. Do not write your name or provide any other information.

Section A (Compulsory)

Q1. The Figure Q1 shows the exploded view of a PLUMMBER BLOCK. It consists of the following parts.

BASE
BRASSES (two halves)
CAP
SQUARE HEAD BOLTS (2 Nos)
STD WASHERS (2 Nos)
STD. HEXAGONAL NUTS (2 Nos)
STD. HEXAGONAL LOCK NUTS (2 Nos)

Draw to a scale of full size in first angle projection the following views of the assembled Plummber Block.

(a) Half Sectional Front Elevation in the direction of arrow "p" with right half in section and the left half in Elevation. The section plane is through the center line of the two bolts.

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

(c) Plan projected from view "a".

Note: 1. No hidden details are necessary.

2. Give only ten main dimensions in the drawing. Radii of casting curves may be taken as suitably.

3. Assume any missing dimensions.

4. All dimensions are in millimeters.

5. Indicate the projection symbol and print the main title, sub titles and the scale.

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Section B

Q2. Two circular cylinders, A and B are joined in such a way that their axes intersect at 60° angles to each other as shown in Figure Q2.

(a) Complete the given elevation with interpenetration curve.
(b) Draw the development of the small cylinder (B) taking CD as seam.

Q3. Figure Q3 shows two orthographic views of an object in first angle projection. Draw to a scale of full size the isometric view of the object taking the near points as shown by the arrows.
Note: Use natural scale and no hidden details are necessary.

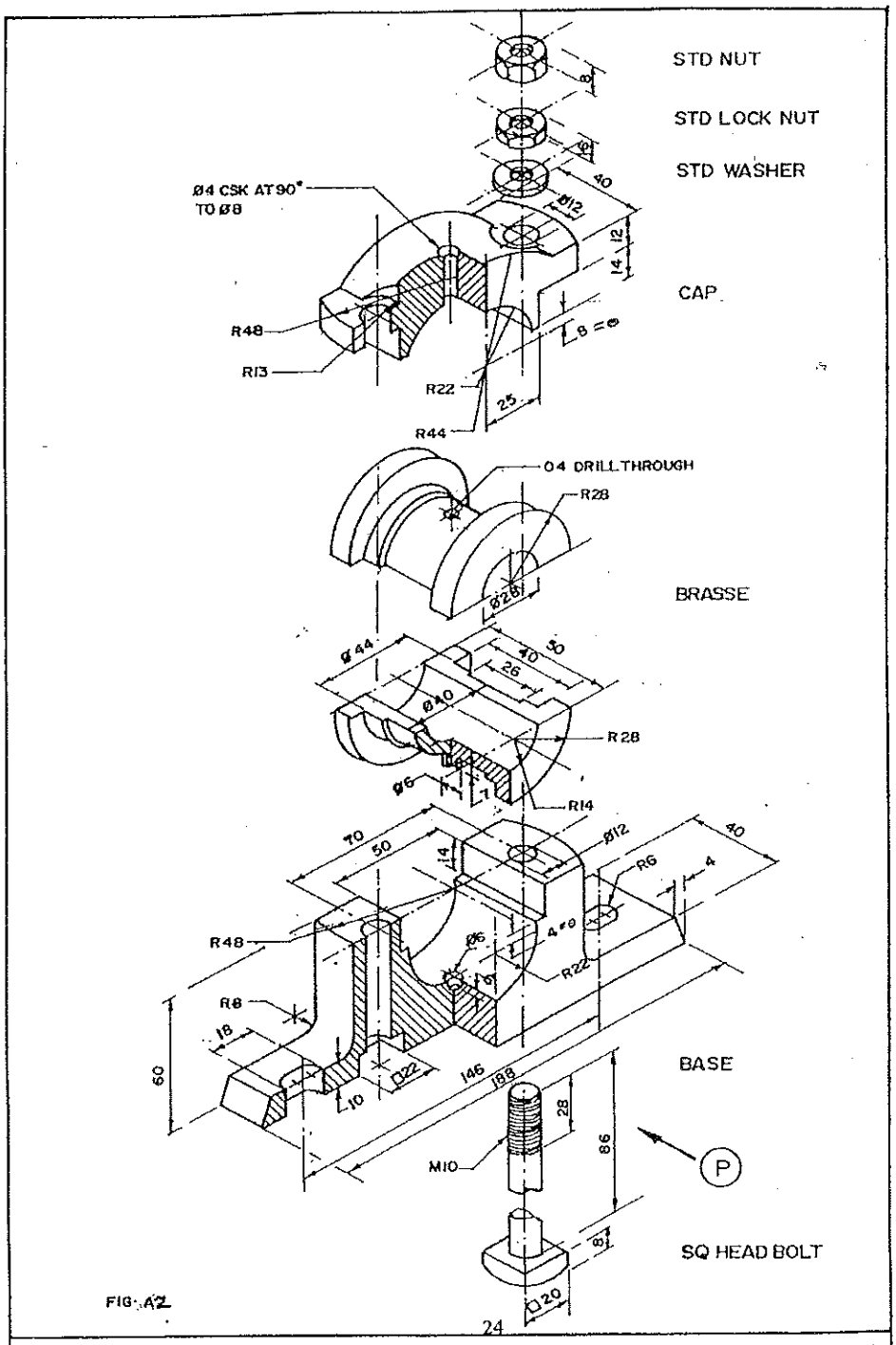

FIG. A2

PLUMMER BLOCK

Figure Q1

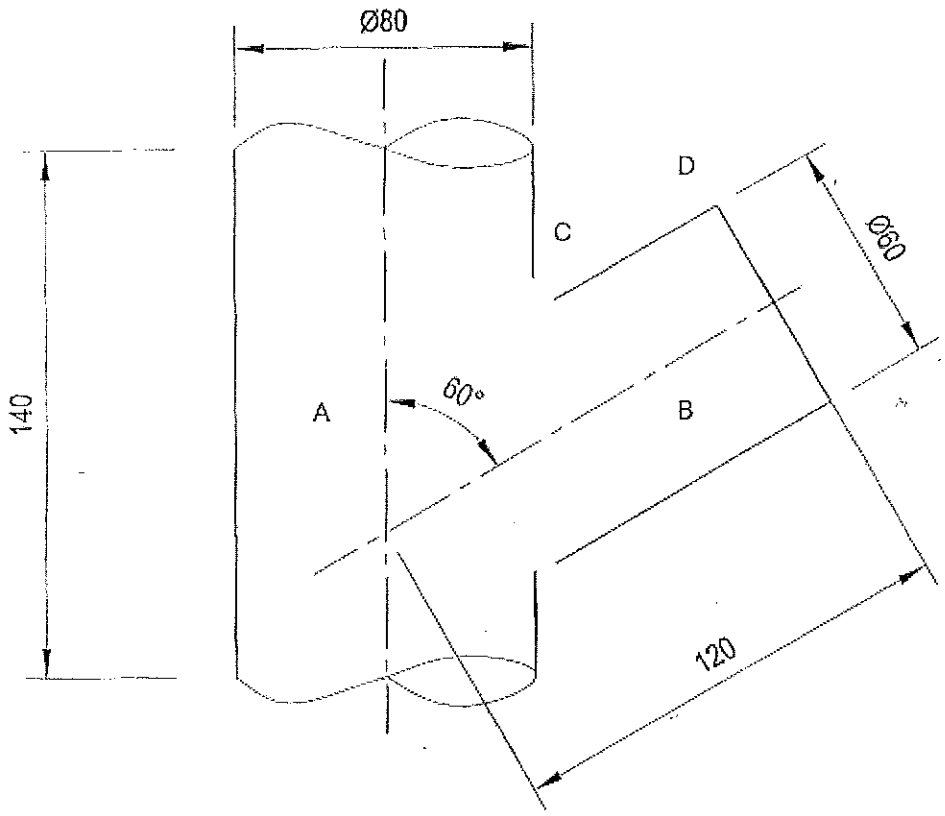

Figure Q2

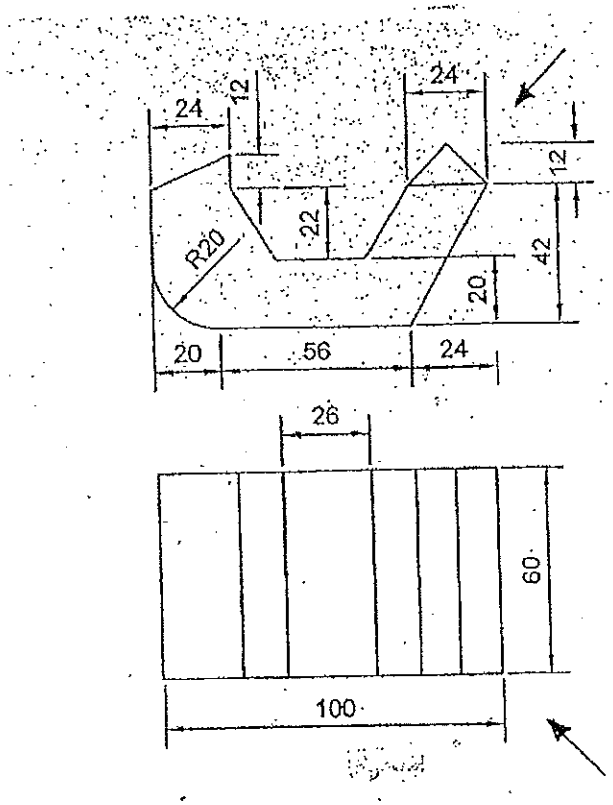

Figure Q3