



# TECHNICAL UNIVERSITY OF MOMBASA

---

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF MECHANICAL & AUTOMOTIVE ENGINEERING

**UNIVERSITY EXAMINATION FOR:**

BTAP, BTRE, BTAC, BSFQ & BTMB

EME 4140 : TECHNICAL DRAWING

END OF SEMESTER EXAMINATION

**SERIES:** APRIL 2016

**TIME:** 3 HOURS

**DATE:** 20 May 2016

## Instructions to Candidates

You should have the following for this examination

*-Answer Booklet, examination pass and student ID, Drawing paper A2*

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

---

## **Question ONE**

A pictorial view of a MACHINE BRACKET is shown in the figure QN1 below. Draw to a FULL scale in **first angle orthographic** projection the following views;

- (a) Sectional front elevation along cutting plane FF
- (b) End elevation in direction of arrow E
- (c) Plan

Include SIX major dimensions and the symbol of projection.

(30 marks)

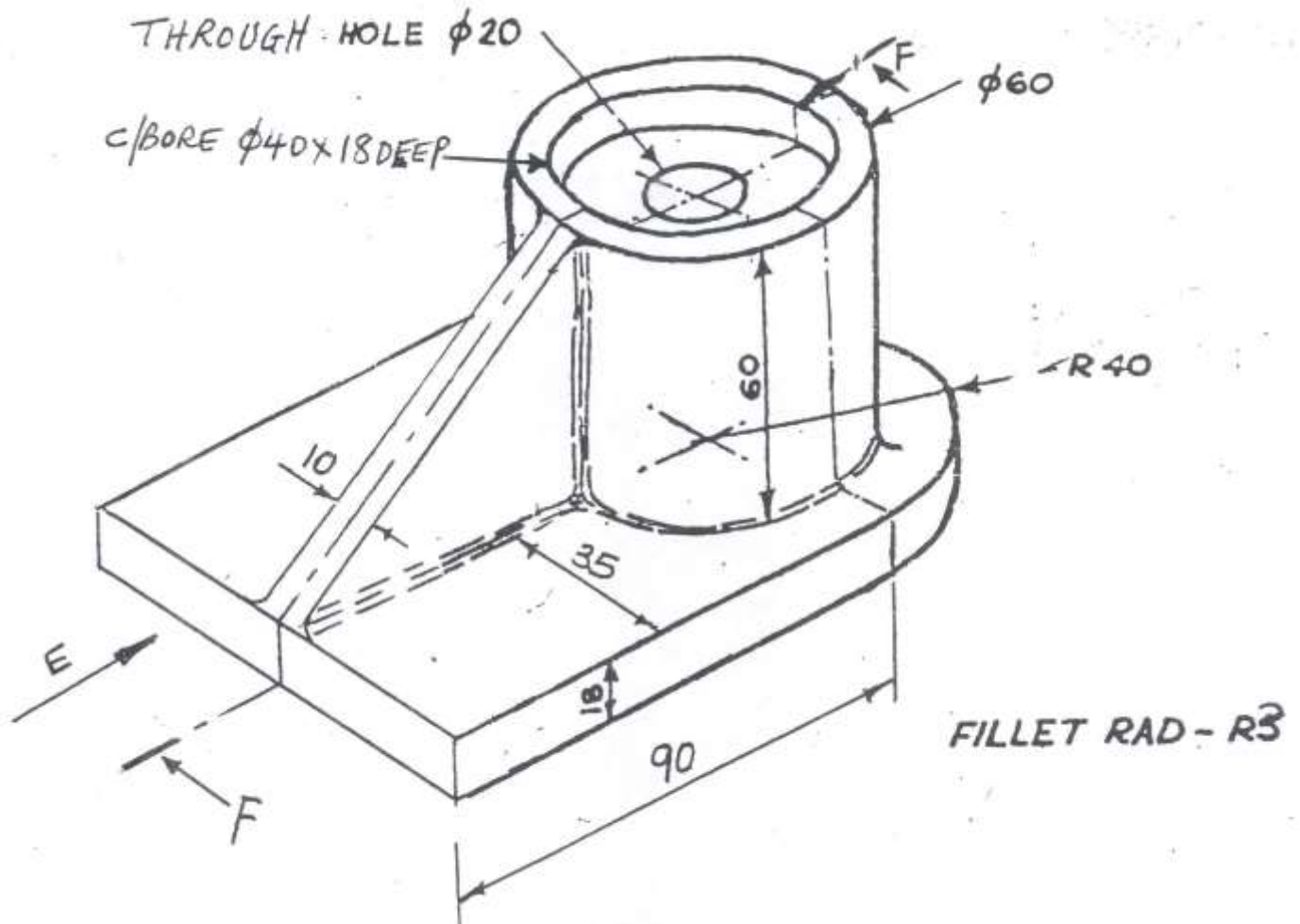


Figure QN1

### Question TWO

(a) Construct a diagonal scale in which 45mm represent 1m. The scale is to cover a range of 4m and to read to an accuracy of 10mm.

(10 marks)

(b) Using the scale construct a pentagon given circumscribing diameter 2m 470mm.

(10 marks)

### Question THREE

Figure QN3 shows a truncated right cone. Copy the given view and draw

(a) Complete plan

(b) End elevation from EE

(c) True shape of the cut surface

(d) Surface development

(20 marks)

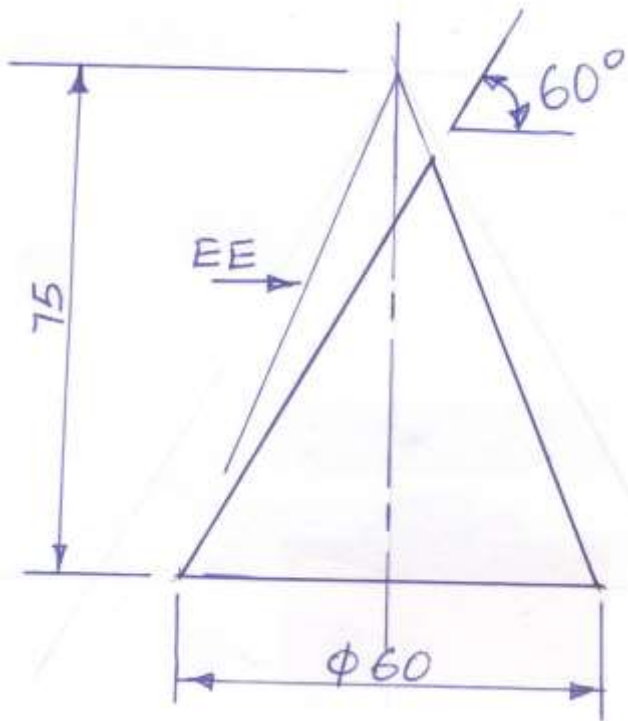


Figure QN3.

#### Question FOUR

Figure QN4 shows the outline of a flower pot. Draw the outline, marking the centre of each radius and showing clearly the method by which the centre was obtained.

(20 marks)

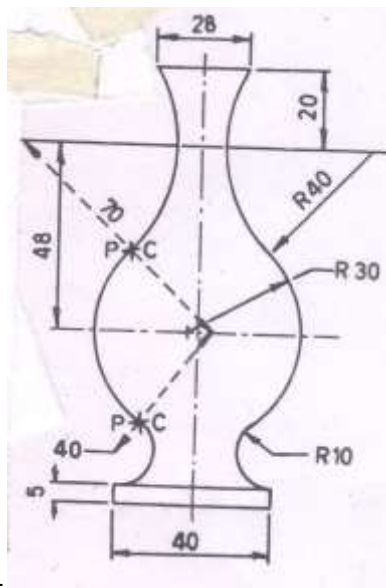


Figure QN4

**Question FIVE**

Three views of a BRACKET drawn in first angle projection are shown in figure QN5. Draw the bracket in ISOMETRIC projection taking corner X as the lowest point.

(20 marks)

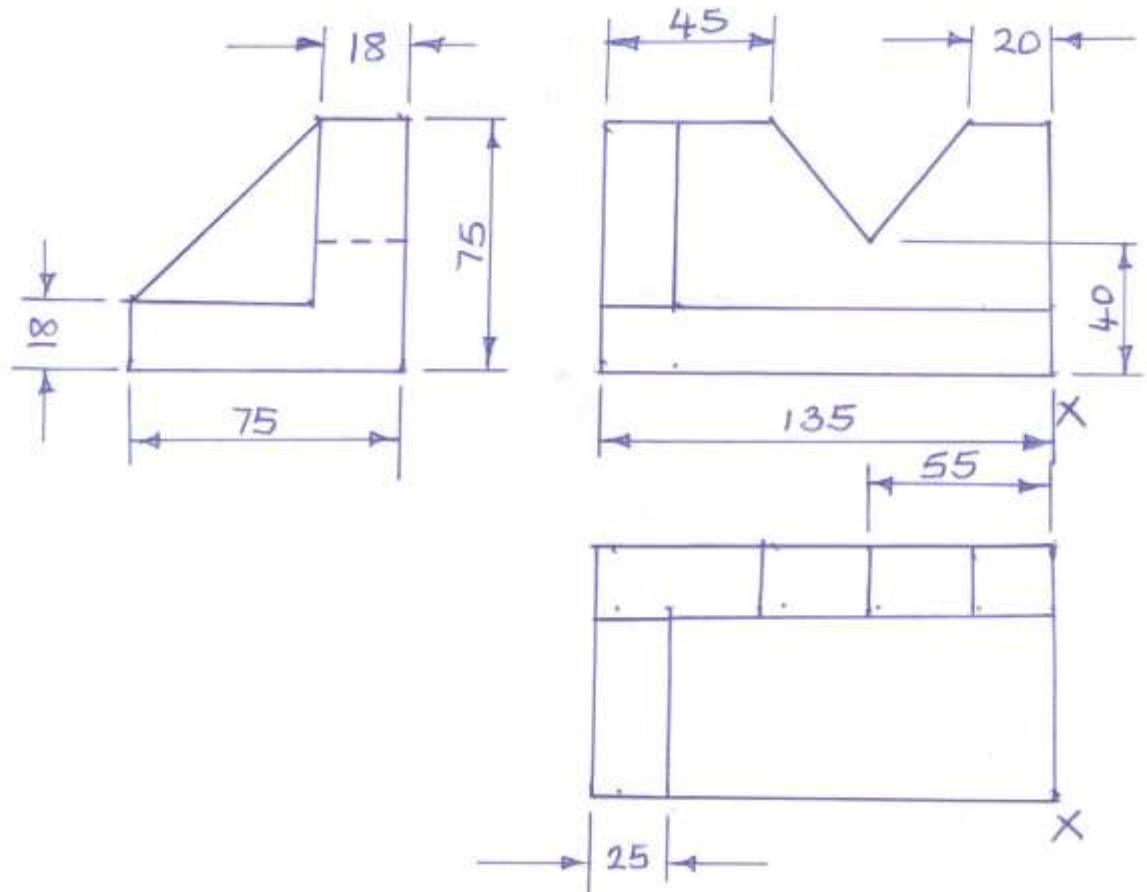


Figure QN5