

BONDO UNIVERSITY COLLEGE

UNIVERSITY EXAMINATIONS

12/13 ACADEMIC YEAR

FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF SCIENCE IN
CONSTRUCTION MANAGEMENT

COURSE CODE: TCM 3122 TITLE: ENGINEERING DRAWING II

DATE:/... /2012

DURATION: 3 HOURS

INSTRUCTIONS

This paper consists of 5 questions

Answer question ONE and any other two questions

Draw the margin and title block on at least one of the drawing papers
(answer sheet provided)

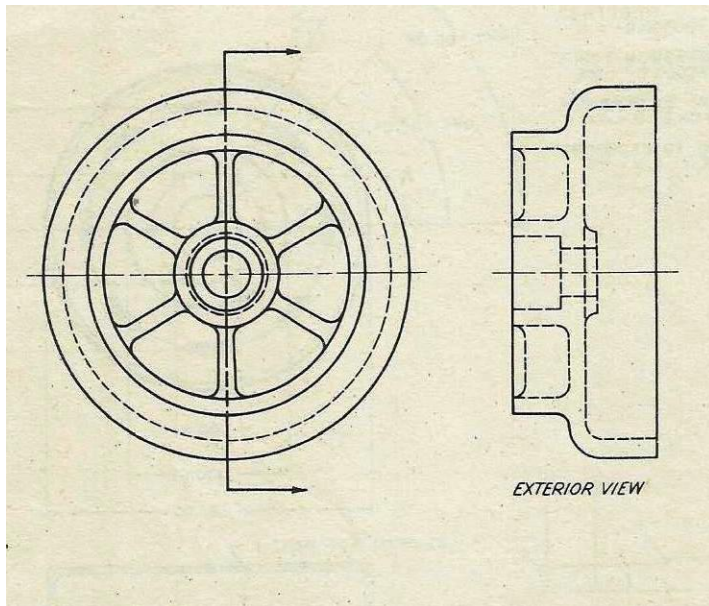
QUESTION ONE (20 MARKS)

- i. In preparing working drawings for an engineering structure in orthographic views, what determines the number of views to be presented?(2 MARKS)
- ii. Outline the procedures for drawing a straight line using freehand sketch (5 MARKS)
- iii. Outline the procedure for drawing a large circle while using free hand sketching techniques (5 MARKS)
- iv. Mention two factors in each case which one will may consider in position the following rooms within the floor plan of a residential house
 - a. Living room (4 MARKS)
 - b. Bedroom (4 MARKS)

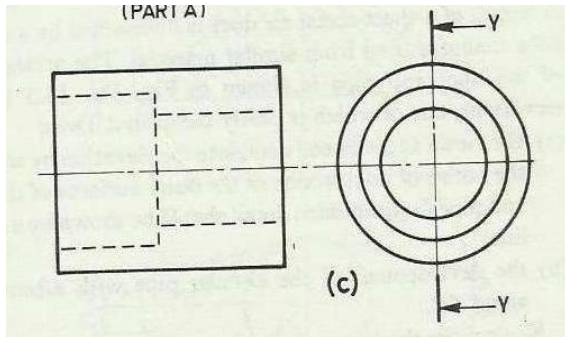
QUESTION TWO (15 MARKS)

Draw sectional views of the objects shown along the given cutting planes

- i) (9 MARKS)

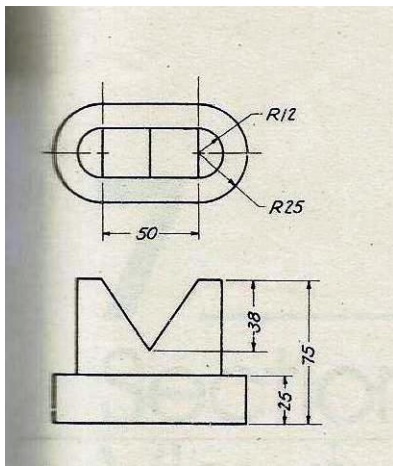


ii) (6 MARKS)

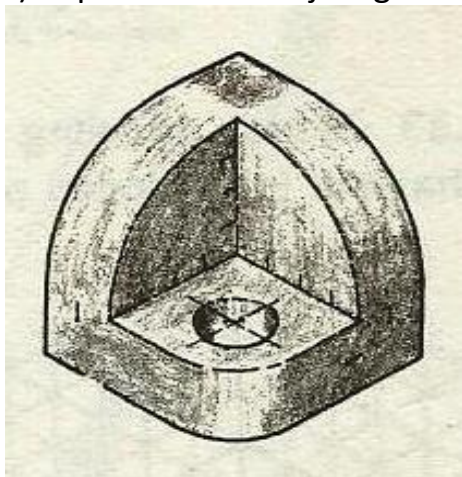


QUESTION THREE (15 MARKS)

i) Draw the pictorial view of the object presented below using freehand sketching techniques



ii) Reproduce the object given below by freehand sketching (7 MARKS)



QUESTION FOUR (15 MARKS)

Design a floor plan for a two bed room self contained residential unit to be used to developed a middle grade residential estate for Bondo University College staff at Bondo town.

QUESTION FIVE (15MARKS)

Drainage water in an irrigation scheme at Wagusu Scheme in Nyangoma village is to be conveyed to a main drainage channel a cross a rural earth road. It has been decided that a ring culvert be used. The suitable size of culvert ring to be used (as dictated by the maximum flow) is 60cm diameter. The following information has also been given

- Culvert rings to be haunched in mass concrete 10cm thick all round
- The design invert level of the drain is 80cm below the road level. The elevation of the road level is 1157.548 m above sea level
- Floor slab and all walls are 20cm thick and are reinforced with Y8 rods. Headwalls protrude 30cm from the road surface
- The road is 3.5m wide
- The soil underneath is deep black cotton soil

Prepare suitable working drawings to be used to tender the works giving at least three views