



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF ENGINEERING AND TECHNOLOGY
UNIVERSITY EXAMINATION FOR DIPLOMA IN BUILDING AND CIVIL ENGINEERING
1ST YEAR 2ND SEMESTER 2015/2016 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: TBC 2122

COURSE TITLE: ENGINEERING DRAWING II

EXAM VENUE: LR 2

STREAM: (Dip. Building & Civil Eng.)

DATE: 22/04/16

EXAM SESSION: 9.00 – 10.30 AM

TIME: 1 ½ HOURS

Instructions:

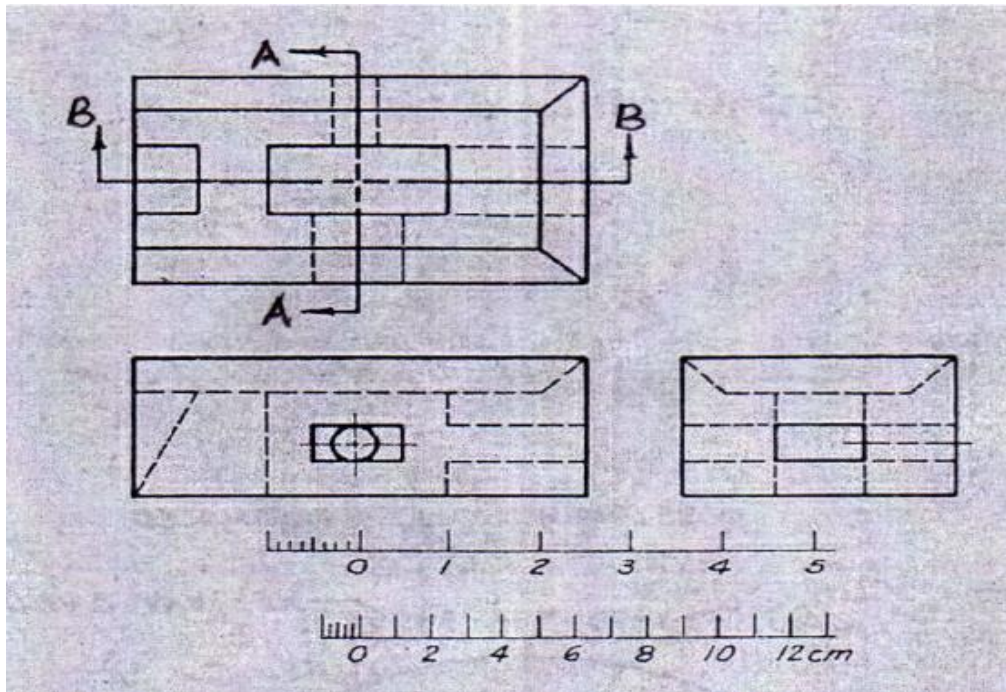
- 1. Answer Question ONE (COMPULSORY) and ANY other 2 questions**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the room**

QUESTION ONE (20 MARKS)

- i. Explain the process of producing copies of a drawing using blue printing technique **(5 MARKS)**
- ii. Mention any circumstance which may necessitate production of copies of a drawing **(2 MARKS)**
- iii. Drawings are often used by second or third party and rarely by draftsmen themselves. Therefore the draftsman needs to present the drawing to the user in a standard international format. Each organization however customizes the format to meet its own internal needs.
 - a) Design a suitable format for title block to be used by the school of engineering in its consultancy works **(5 MARKS)**
 - b) Why do you think any drawing needs to be checked by a second party before it can be approved for use? **(2 MARKS)**
- iv. A view “ in section” is obtained by imagining the object to have been cut by a cutting plane and then removing the front section to reveal the interior features
 - a) Mention any three reasons which may make you use sectional view(s) **(3MARKS)**
 - b) Differentiate between revolved section and removed section **(4MARKS)**

QUESTION TWO (15 MARKS)

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



QUESTION THREE (15 MARKS)

Free-hand technical sketching is one of the most widely used forms of communication and is a way of producing drawings quickly without the aid of any mechanical instrument. Sketch pictorial views of the objects whose multi-views are given in figures Q3.1, Q3.2 and Q3.3 respectively

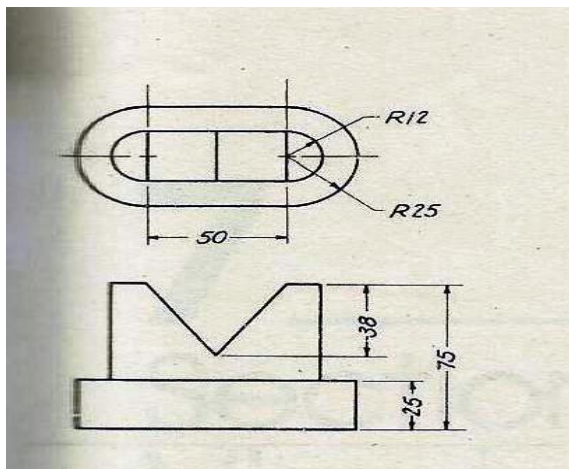


Fig Q3.1

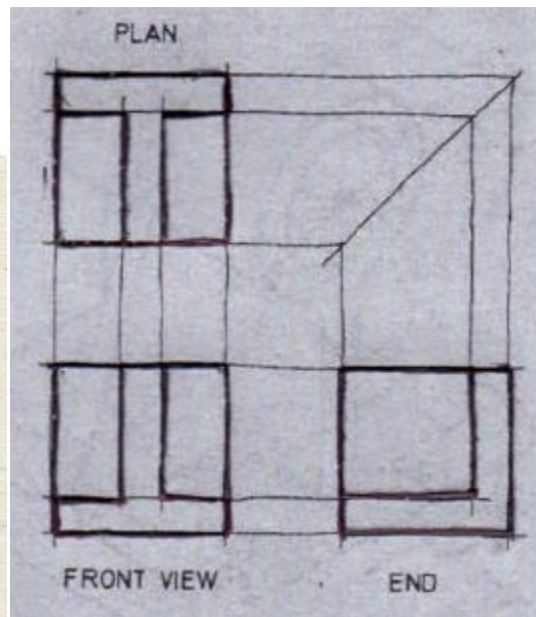


Fig Q3.2

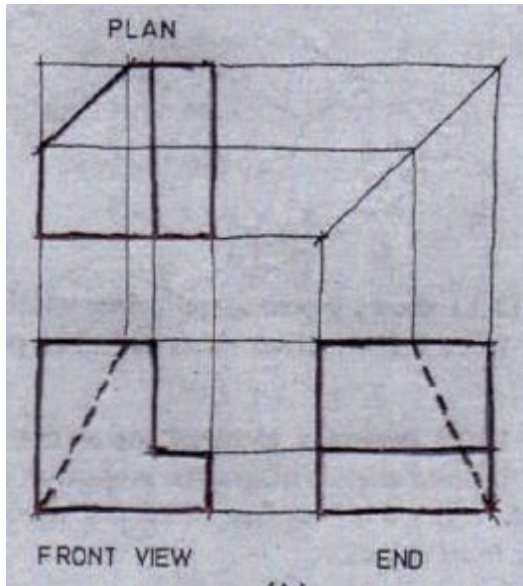


Fig Q3.3

QUESTION FOUR(15 MARKS)

Design and draw to scale a house plan for a one bedroom self-contained residential unit to be constructed in a rural village within Nyakasumbi village. The house is expected to have a bedroom, a lounge, a kitchen, bathroom and toilet. Present only a floor plan

QUESTION FIVE (15MARKS)

Design and draw to scale a simple box culvert to be used to convey irrigation water across Bondo-Usenge road in Nyangera irrigation scheme near Usigu urban center. The maximum flow in the scheme is 300l/s and the effective width of the road at the point of crossing is 10m. Present a plan, front sectional view and end sectional view. The cutting plane in both cases passes through the center of the culvert.