JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

UNIVERSITY EXAMINATIONS FOR THE DIPLOMA IN CIVIL ENGINEERING (TVET)

1ST YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR

CENTRE: MAIN CAMPUS

COURSE CODE: TDC 2122

COURSE TITLE: TECHNICAL DRAWING

EXAM VENUE: **STREAM: Dip CIVIL ENGINEERING**

DATE: ../04/2024 **EXAM SESSION:**

DURATION: 2 HOURS

Instructions

1. **Answer ALL questions in Section A (Compulsory) and ANY other three questions in Section B**
2. **Candidates are advised not to write on question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**
4. **Indicate your course particulars IN a well prepared title block (scale** to be used is **1: 1)**

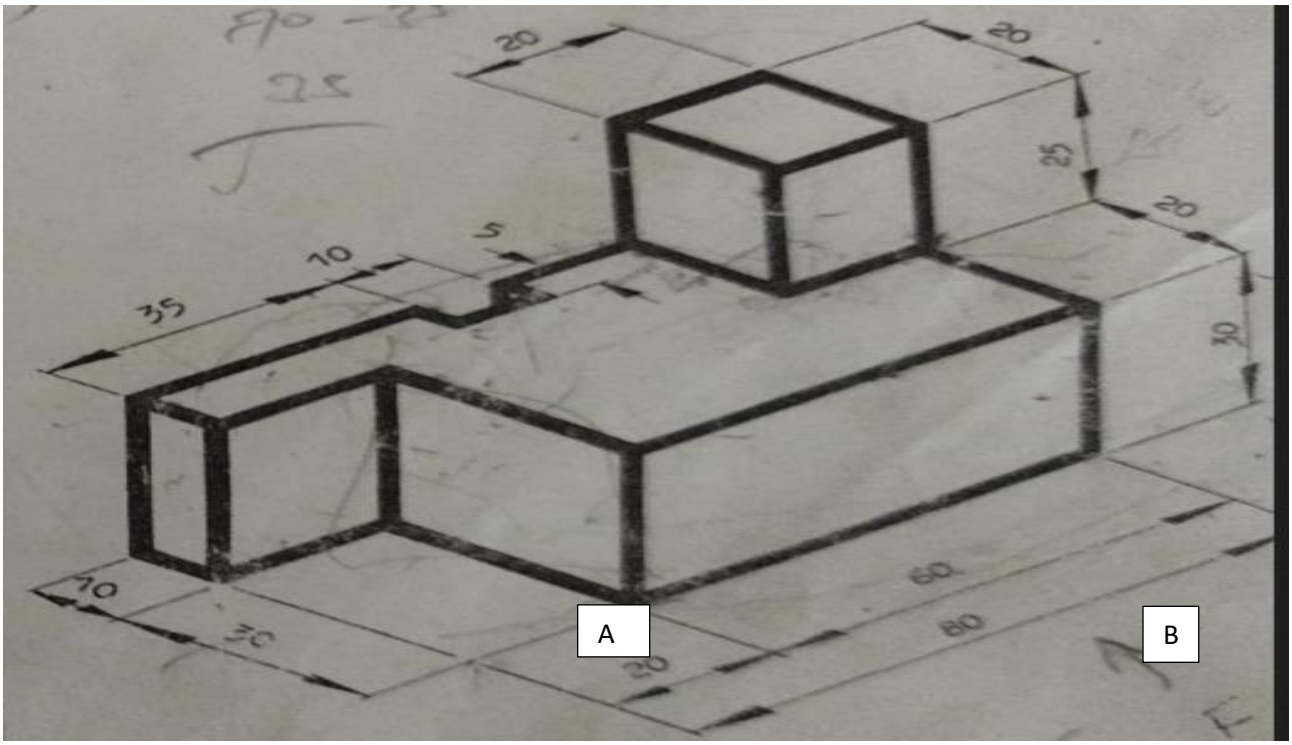
Section A (Compulsory) (40 Marks)

1. State five types of lines used in technical drawing (5 Marks)
2. Given that A3 SIZE of drawing paper is 210mm x 290mm, sketch on the same plane, the following paper sizes showing their respective sizes
   i. A4
   ii. A5
   iii. A6
   iv. A2
   v. A1 (10 Marks)

3. Divide a line AB 55mm into 8 equal parts (5 Marks)
4. Construct a right angle triangle whose perimeter is 75mm (5 Marks)
5. Construct each of the following angles
   i. 30^0
   ii. 135^0
   iii. 15^0
   iv. 22.5^0 (10 Marks)

Section B (Answer any three questions from this section) (60 Marks)

6. Construct a plain scale of 30 mm =300 mm to read to 10 mm up to 1200 mm. Using this scale, draw to scale a triangle having a perimeter of 1200 mm and having sides in the ratio 3:4:6. Print neatly along each side the length to the nearest 10 mm (20 Marks)
7. Draw a line AB 40mm long. On the line, construct 45^0 at A and 60^0 at B. use line AB and the angles constructed to draw the following angles (20 Marks)
   i. pentagon
   ii. heptagon
   iii. nonagon
   iv. hexagon
8. Refer to the block shown below: redraw the block in isometric projection TAKING corner A as the lowest point. all dimensions in mm (20 Marks)



9. Draw in 3rd angle orthographic projection the views of the block in question 8 above taking B as the front elevation (20 Marks)