

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**  
**SCHOOL OF SCIENCE AND TECHNOLOGY EDUCATION**  
**DEPARTMENT OF INDUSTRIAL AND TECHNOLOGY EDUCATION**  
**FIRST SEMESTER EXAMINATION 2021/ 2022 SESSION**

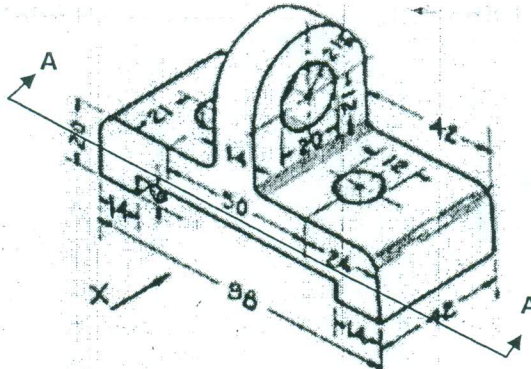
**COURSE CODE:** ITE 313

**COURSE TITLE:** TECHNICAL DRAWING III

**TIME:** 2 HOURS

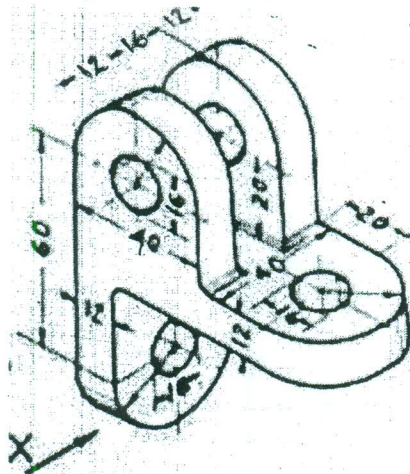
**INSTRUCTION:** ANSWER QUESTION (1) COMPULSORY AND ANY OTHER TWO (2) QUESTIONS IN SECTION B

1. Draw full size in first angle orthographic projection the following views: looking at the direction of point X and the Sectional top view A-A of the block

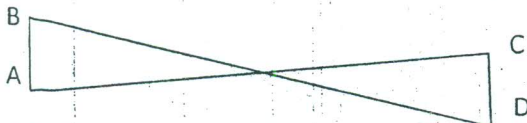


**SECTION B: ANSWER ANY OTHER TWO (2) QUESTIONS**

2. Draw the Isometric block into third angle orthographic projection.



3. A frustrum of a square pyramid has its base 50 mm side, top 25 mm side and height 60 mm. It is resting with its base on HP, with two of its sides parallel to VP. Draw the projections of the frustrum and show the development of its lateral surface.
4. A linked crank mechanism consisting of two cranks, AB and CD, joined by a link DB which is fixed at D and slides through B as shown below:
- Draw to a scale of 1:1 the given schematic of the mechanism
  - Trace the locust generated by point P for one complete revolution of the mechanism



NB: As crank AB rotates in anticlockwise direction, crank CD rotates in a clockwise direction at the same velocity; AB=20mm; AC 40mm

5. Make a freehand drawing of the spanner shown below



Make a freehand drawing of the spanner shown.