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**COURSE CODE: MIE 162**
**COURSE TITLE:   ENGINEERING DRAWING II**

**DATE:**       25/04/2022        **TIME:**   08:00 – 11:00 AM

**INSTRUCTIONS TO CANDIDATES**

Question ONE (1) is compulsory
Answer Any Other TWO (2) questions

TIME:   3 Hours
MMUST observes ZERO tolerance to examination cheating

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## QUESTION ONE (COMPULSORY)                                    (40 Marks)

A cylindrical slab of 75 mm diameter and 45 mm thick is surmounted by a cube of 38 mm side as shown in FIG Q1. On the top of the cube rests a square pyramid of altitude of 38 mm and side of base 25 mm. The axes of the solids are in the same straight line. Draw the isometric view of the set up.

## QUESTION TWO                                                 (30 Marks)

A hexagonal prism of 35 mm side and 65 mm height has a concentric hexagonal hole of 18 mm side. It rests with its base on HP such two rectangular faces make equal inclination to VP. The prism is cut by a section plane inclined at 60° to HP. The section plane bisects the axis of the prism. Draw the sectional top and left end views. Add the true shape of section

## QUESTION THREE                                               (30 Marks)

A lampshade is formed by cutting a cone of base 144 mm diameter and 174 mm height by a horizontal plane at a distance of 72 mm from the apex and another plane inclined at 30° to HP, passing through one extremity of the base. Draw the surface development

## QUESTION FOUR                                                (30 Marks)

ABCD is a four bar mechanism with link AD as the fixed link. Crank AB rotates about A while the follower CD oscillates about D. Draw the locus of a point on the oscillating linkBC for one revolution of crank. AB = 30 mm, CD = 50 mm, BC = 70 mm, AD = 80 mm and BP = 30 mm. 162
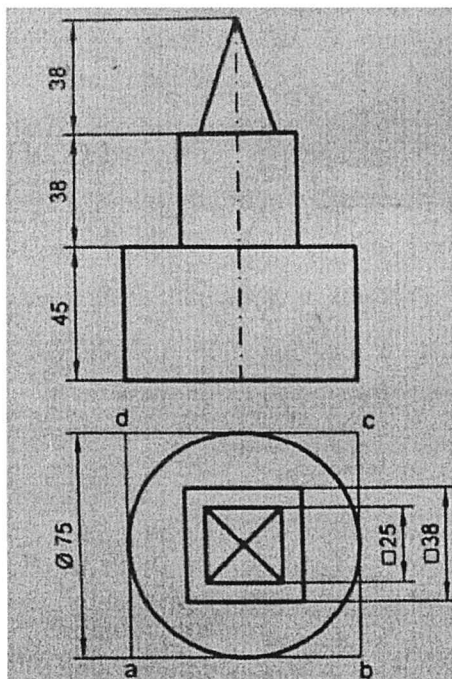


**FIG Q 1**