ES 101: Engineering Graphics
Semester 1, 2024-25
Exam 1 (Mid-sem Exam)

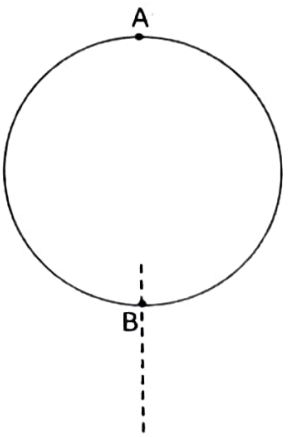
Date: 01st October 2024 **Time: 9:00 AM - 11:00 AM**

Instructions

- *Write your name, roll number, and group number in the designated space before you start drawing. Drawing sheets with incomplete or no details will not be graded.*
- *Pen should not be used anywhere on the drawing sheet.*
- *Extra sheets will not be provided.*
- *Scale should be mentioned below each drawing.*

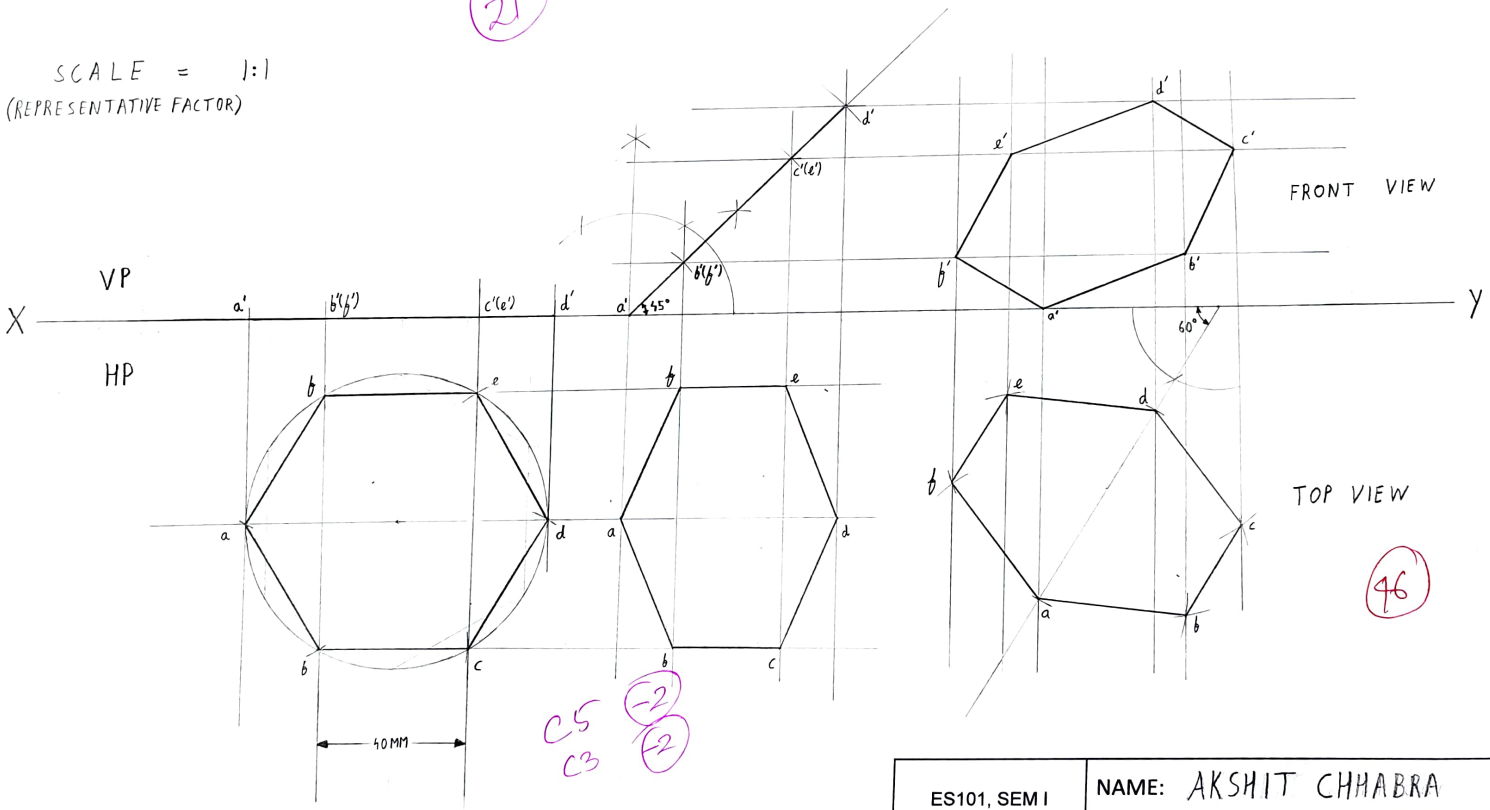
1. A regular hexagon with a 40 mm side has a corner in the HP. Its surface is inclined at 45° to the HP, and the top view of the diagonal through the corner, which is in the HP, makes an angle of 60° with the VP. Draw the front and top view. Mark the two angles at appropriate places in the drawing. *(25 points)*

2. A string is wrapped around a circle of diameter 50 mm such that its one end is fixed at point A and the free end is at point B. The location of A and B is such that the length of the string is equal to half of the circle circumference. The free end of the string starts moving clockwise while ensuring the string is always taut. Draw the trajectory of the free end of the string as it completes a full revolution, i.e., till it meets the dashed line shown in the diagram. Use geometric construction principles for dividing line(s). The circle should be divided into 8 sections. *(25points)*



21

SCALE = 1:1
(REPRESENTATIVE FACTOR)



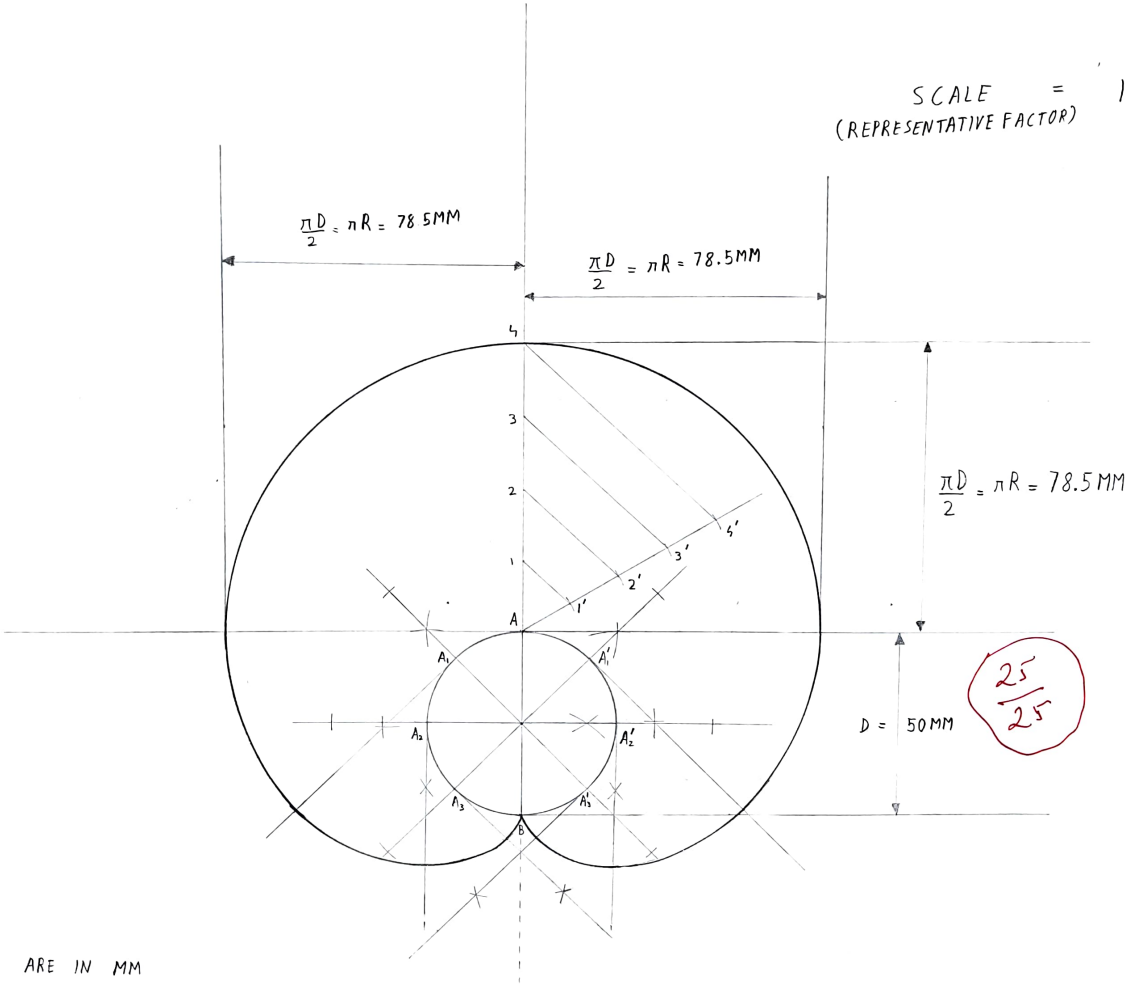
C5 -2
C3 -2

46

ALL DIMENSIONS ARE IN MM

ES101, SEM I AY 2024-25 IITGN **EXAM I: 01/10/2024**	NAME: AKSHIT CHHABRA
	ROLL NUMBER: 24110026
	GROUP NUMBER: 3

SCALE = 1:1
(REPRESENTATIVE FACTOR)



25/25

ALL DIMENSIONS ARE IN MM