Seat No.

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| **First Year B. Tech** |
| **End Term Exam Trimester-III, (SAMPLE PATTERN)** |
| **Course: - Engineering Graphics (MEE103B/MEE1003A)** |

**Maximum Marks: 50 Tim:2 1/2 Hrs.**

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| **Instructions: -** | 1. | *All questions are compulsory.* |
|  | 2. | *Assume suitable data, if necessary and clearly state.* |
|  | 3. | *Use of cell phones is prohibited in the examination hall.* |

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|  |  | **Marks** |
| Q1) | A wheel of a motorcycle 40 mm in diameter rolls on a straight horizontal road. Draw the locus of a point 'P' on the wheel's periphery for one revolution of the wheel. Initially, point' P' is touching the road. | **[10]** |
| **OR** |
| The pictorial view of an object is as shown in the figure. Using the first angle method of projection, draw **a)** F.V. looking in the direction of arrow X **b)** T.V. and **c)** S.V. Give all dimensions. |
| Q2) | The figure shows orthographic views of an object by the First angle method of projection. Draw its isometric view taking origin at O and give major dimensions. | **[10]** |
| **OR** |
| A pentagonal prism of base edge 25 mm resting on one of its base edges in the HP. The height of Axis is 60 mm and axis is inclined at an angle of 300 with HP. Draw the projections of the pentagonal prism when base edge resting on HP becomes inclined to VP at an angle of 450 |
| Q3) | A line AB 65mm long is inclined at an angle of 450 to HP. The end point A of line AB is on the VP and 20mm above HP. Draw the projections of line when its plan is inclined at an angle of 300 to VP. | **[10]** |
| **OR** |
| A Line AB 70 mm long is inclined at 450 to the H.P. and 300 to the V.P It's endpoint A is on the H.P. and 25 mm in front of V.P. Draw the projections of the line AB. |
| Q4) | An isosceles triangle PQR having its base PQ = 40 mm and altitude 60 mm is resting on the HP on its base PQ. Draw the projections of the plane when its surface is inclined to H.P. at an angle of 350, and base PQ which is on HP, is making an angle of 400 to the VP. | **[10]** |
| **OR** |
| A rectangular plane of side 60 x 40 mm is resting on HP on its smaller side and its surface is inclined to HP at an angle of 450. Draw the projections of a plane when side resting on HP makes an angle of 300 to VP. |
| Q5) | Draw development of the lateral surface of a hexagonal prism with base edge 40 mm and axis height 65 mm. | **[10]** |
| **OR** |
| Draw development of the lateral surface of a pentagonal pyramid of base side 30 mm and axis height 70 mm. |