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[5558]-107

**F.E. EXAMINATION, 2019  
ENGINEERING GRAPHICS—I  
(2015 PATTERN)**

**Time : 2 Hours**

**Maximum Marks : 50**

Instructions:

1. Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
2. Use only half imperial size drawing sheet as answer book.
3. Retain all construction lines.
4. Assume suitable data if necessary.

**Q.1** A line AB 90mm long, having its endpoint A is on HP and 20 mm in front of VP. The Plan length of the line AB is 70 mm and makes an angle of  $40^\circ$  with VP. Draw the Projections of line AB. Find the inclinations made by the line with HP and VP Also locate its traces. **12**

**OR**

**Q.2** A circular plane lamina having diameter 60 mm is resting on one of its Circumferential point on HP in such a way that its plan appears as an ellipse having a major axis 60 mm long and minor axis is 40mm. Draw the projections, if the plan of the minor axis makes an angle of  $40^\circ$  to the VP. **12**

**Q.3** A pentagonal pyramid having base edge 40 mm and axis 80 mm long is resting on HP on one of its base edge in such a way that the axis of the solid makes an angle of  $50^\circ$  to HP and the base edge on the HP makes an angle of  $20^\circ$  to VP, draw the projections of the solid when its apex is towards the observer. **13**

**OR**

**Q.4** A Draw a cycloid of the rolling circle of diameter 55 mm along a straight line for one convolution and consider the starting point is farthest from the ground **07**

P.T.O.

**B** Draw the development of lateral surface for a pentagonal prism having a base edge 30 mm and axis height is 80 mm 06

**Q.5** Figure shows a pictorial view of an object. By using first angle method of projections, draw; 13

- i. Draw the FV in the direction of X, [04]
- ii. Top View [04]
- iii. Sectional RHSV along the section line A-A for Figure A. [04]
- iv. Overall Dimensions [01]

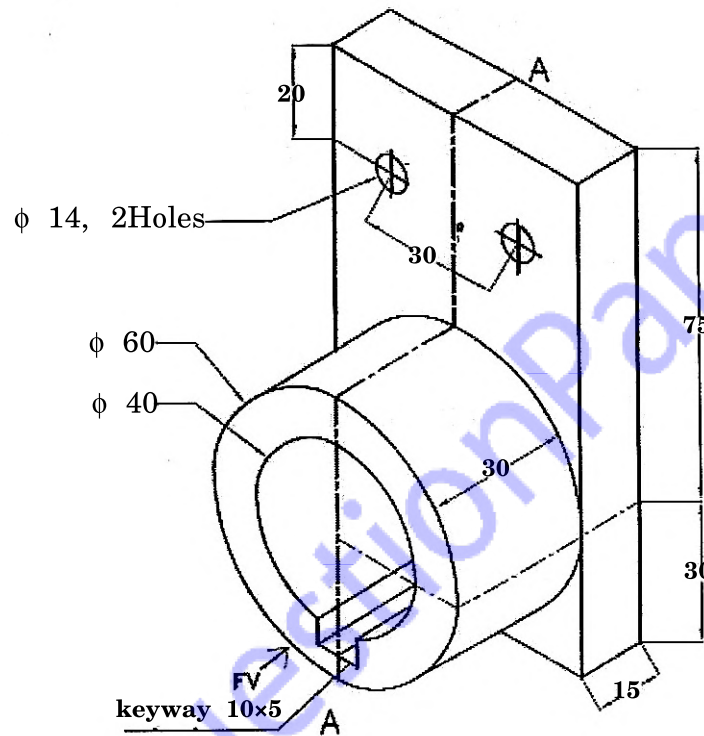


Fig. A

OR

**Q.6** Figure shows a pictorial view of an object. By using first angle method of projections, draw; 13

- i. Draw the sectional FV along cutting plane line A-A, [04]
- ii. Top View, [04]
- iii. LHSV for figure B given below [04]
- iv. Overall Dimensions [01]

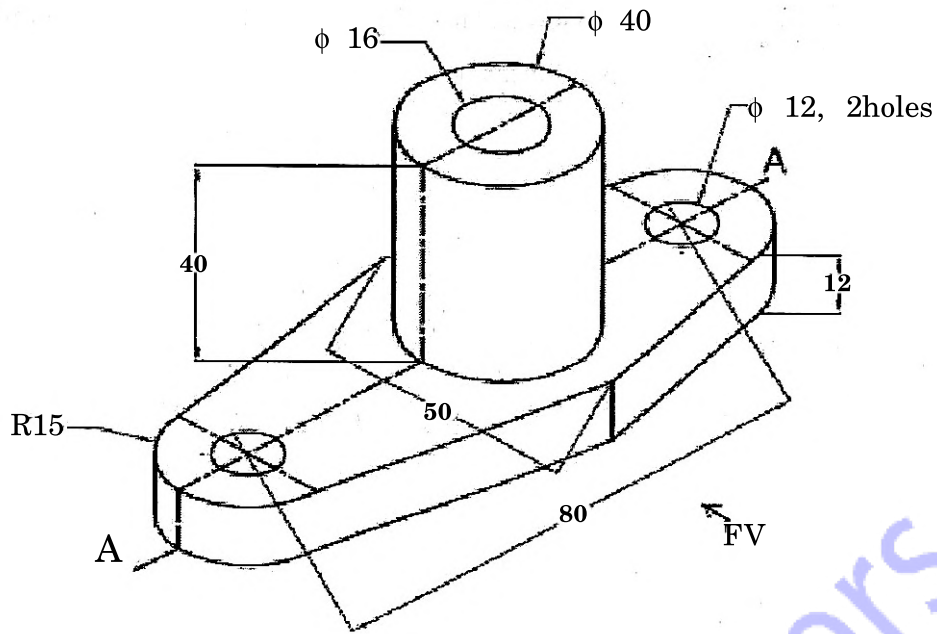


Fig. B

Q.7

Figure C shows the FV and SV of a bracket. Draw the isometric view and show the overall dimensions.

12

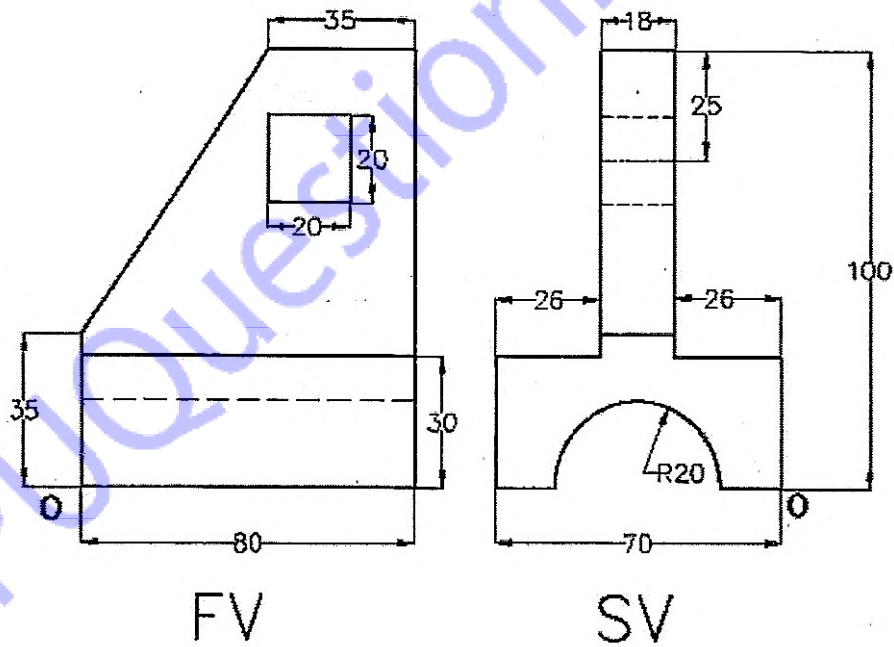


Fig. C

OR

Q.8

Figure D shows the front view and top view of an object. Draw an isometric view and show the overall dimensions

12

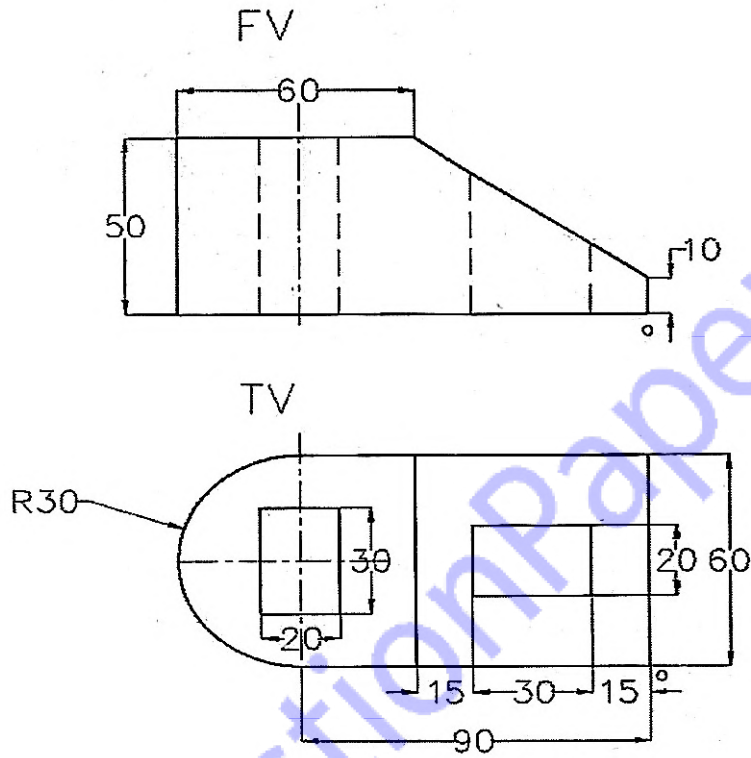


Fig. D

!!All the Best!!