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SET 2



INDIAN SCHOOL MUSCAT FIRST TERM EXAMINATION ENGINEERING GRAPHICS

CLASS: XII
09.05.2018

Sub.Code: 046

Time Allotted: 3 Hrs
Max. Marks: 70

General Instructions:

- (i) *All dimensions are in millimeters.*
- (ii) *Missing and mismatching dimensions, if any, may be suitably assumed.*
- (iii) *Follow the SP: 46, 2003 revised codes. (with First angle method of projection)*
- (iv) *In no view of ISOMETRY, are hidden edges or lines required.*
- (v) *Use both the sides of the drawing sheet.*

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| 1 | Construct an Isometric scale. | 3 |
| 2 | Draw to isometric scale the isometric projection of an inverted pentagonal pyramid (side 35mm, height=75mm). The axis of the pyramid being perpendicular to HP and one of the sides of the pentagon parallel to VP and away from it. Mark all dimensions and indicate the direction of view. | 7 |
| 3 | Draw to isometric scale the isometric projection of a cylinder (diameter 50 mm and height 70 mm), with its axis perpendicular to HP and parallel to VP. Mark all dimensions and indicate the direction of view | 7 |
| 4 | Draw to isometric scale the isometric projection of combination of a triangular pyramid (side =24mm, height= 50mm) resting centrally on the hexagonal end of a hexagonal prism (side=30 mm, height = 60 mm) .The common axis being perpendicular to HP. One of the base sides of the triangle and prism being perpendicular to VP. Mark all dimensions and indicate the direction of view. | 14 |
| 5 | Draw to isometric scale the isometric projection of combination of a cone (diameter = 44 mm height =60 mm) resting centrally and vertically on the rectangular face of a pentagonal prism (side = 34 mm, height = 80 mm).The axis of prism perpendicular to VP. Mark all dimensions and indicate the direction of view. | 14 |
| 6 | Draw to scale 1:1, the front view and the left side view of a square headed bolt (across flat) diameter 25 mm, keeping its axis parallel to VP and HP. Give standard dimensions. | 10 |
| 7 | Draw to scale 1:1, the front view and the left side view of a hexagonal headed bolt of diameter 30 mm, keeping its axis parallel to VP and HP. Give standard dimensions. | 10 |

1. Isometric projection is a kind of projection.
 - a. Oblique
 - b. Axonometric
 - c. Perspective
 - d. None of the above

2. The angle between the true length and the isometric length is
 - a. 120°
 - b. 45°
 - c. 30°
 - d. 15°

3. The head of a hexagonal head bolt is a hexagonal prism with a chamfer rounded off at an angle of 30° on the outer end face
 - a. Conical
 - b. Triangular
 - c. Cylindrical
 - d. None of the above

4.is done to remove sharp corners to ensure the safety of the user.
 - a. Lathing
 - b. Chamfering
 - c. Crowing
 - d. None of the above

5. is placed below the nut to provide "a flat smooth bearing surface".
 - a. Bolt
 - b. Nut
 - c. Washer
 - d. None of the above

End of the Question Paper