

AMIETE – ET (OLD SCHEME)

Code: AE02
Time: 4 Hours

Subject: ENGINEERING GRAPHICS
Max. Marks: 100

JUNE 2011

NOTE:

1. (a) There are SEVEN questions in all and these are arranged in three Sections A, B and C.
(b) Sections A and B are compulsory and carry 20 marks and 32 marks respectively.
(c) Out of remaining 5 questions (of 16 marks each) in Section C students are required to answer any 3 questions.
2. Detach this sheet from the question paper and write answers on this sheet only on Pages 1 & 2. Attach it to the main drawing sheet. Remaining questions are to be answered on the main drawing sheet.
3. All dimensions given are in mm. Use suitable values of any missing and mismatching dimensions.
4. Use BIS Code: SP: 46-1988 for all drawings and do not rub off construction lines.

Roll No _____

SECTION A (Compulsory) – Marks – 20

Note : - Answer this on question paper itself and annex with the drawing sheet.

Q1. Choose the correct or best alternative in the following:

(2×10 = 20)

QUESTIONS

ANSWER HERE

a If a pentagonal plane is inclined to H.P. and perpendicular to V.P., its front view is a

- (A) line (B) regular pentagon
(C) irregular pentagon (D) none

b The hidden edge of an object is shown by:

- (A) Thin continuous line (B) Thin dotted line
(C) Thick continuous line (D) Thick dotted line

c. A square pyramid is cut by a section plane parallel to its base, the sectioned surface will be

- (A) Square (B) Rectangle
(C) Triangle (D) Trapezium

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- d. When a line is inclined to both H.P. & V.P. it has _____ trace
- (A) vertical (B) horizontal
(C) profile (D) all the three _____
- e. The feather keys are _____ keys.
- (A) parallel (B) perpendicular
(C) inclined (D) none _____
- f. If the development of a square prism is a square of 300 mm side, then the length of the base side will be
- (A) 25 mm (B) 50 mm
(C) 75 mm (D) 100 mm _____
- g. The double ordinate through the focus of a conic is called
- (A) Vertex (B) Directrix
(C) Latus Rectum (D) Tangent _____
- h. If 10 mm actual size represents 1m on a map, the representative fraction is
- (A) 1:100 (B) 1:1000
(C) 100:1 (D) 1000:1 _____
- i. _____ is a curve traced by a point in a straight line which rolls without slippage along a circle or polygon.
- (A) Epicycloids (B) Hypocycloid
(C) Cycloid (D) Involute _____
- j. When a section plane is inclined to the axis of a cone and is parallel to any one of the generators, the shape of the section is.
- (A) Parabola (B) Ellipse
(C) Circle (D) Hyperbola _____

SECTION B (Compulsory)

Q.2 The pictorial view of an object is shown in Fig.1. Draw the following views of this object

- (i) Half sectional front view with left half in section as cut by plane A
(ii) Half sectional side view with right half in section as cut by plane B
(iii) Top view (12+10+10=32)

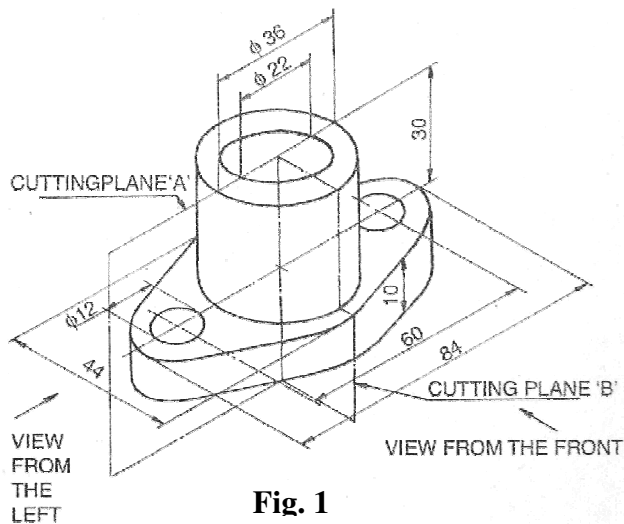


Fig. 1

SECTION C

Answer any **THREE** Questions. Each question carries 16 marks.

- Q.3** A line AB 60 mm long measures 50 mm in its front view and 40 mm in top view. End A of the line is in HP and B is in VP. Draw the projection of the line and show its traces. (16)
- Q.4** Draw an involute of a circle of diameter 25 mm. (16)
- Q.5** a. Construct a diagonal scale using a scale of 10 centimeter to 6 meter to read meter, decimeter and centimeter. Show a distance of 6.53 meters on it. (8)
- b. Draw the top and front view of a double rivet butt joint (zig-zag riveting) for thickness of plate 't' and diameter of rivet hole 'D'. (8)
- Q.6** Draw the isometric projection of the object shown in Fig.2. (16)

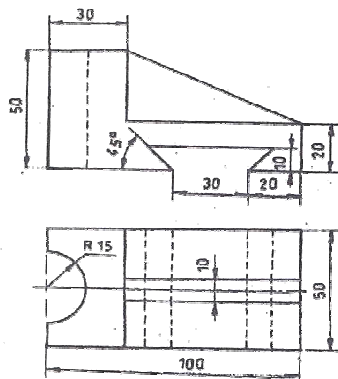


Fig. 2

- Q.7.** Draw sectional front view of a Socket and Spigot Joint for 25 mm diameter rods keeping the axes of the rods horizontal. Show the proportionate dimensions. (16)