

PARUL UNIVERSITY
FACULTY OF AGRICULTURE
B.Tech.(Dairy Technology) Summer 2018 - 19 Examination

Semester: 1**Subject Code:20104103****Subject Name:Engineering Drawing****Date: 20/04/2019****Time: 02:00PM TO 04:00PM****Total Marks: 50****Instructions**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 (A) Fill in the blanks (Each of 0.5 Mark)**(05)**

- i) Chain Thick line will be drawn by_____
- ii) Name of the instruments used for drawing a parallel line is _____
- iii) If any point is lies above H.P. and In Front Of V.P. then it is lies in _____quadrant.
- iv) Name of the curve used on designing a chimney or cooling tower is _____
- v) The symbol of projection system is a frustum of _____
- vi) The eccentricity of Parabolic curve is _____
- vii) If any point is lies below H.P. and In Front Of V.P. then it is lies in _____ quadrant.
- viii) When we are cutting the cone Parallel to its one of the Generator then the curve generate at the cutting surface is_____
- ix) The plane which is perpendicular to the both reference plane is known as _____
- x) Continuous Thin with Thick End line will be drawn by _____

B) Multiple Choice Questions (Each of 0.5 Mark)**(10)**

- i) Which of the following curve used on designing a spring?
 - a)Ellipse b)Parabola c)Spiral d)Cycloid
- ii) In Unidirectional dimensioning system we have to write down the dimension.....
 - a)above the dimension line b) below the dimension line
 - c) in between the dimension line d)none of this
- iii) What is the Internal Angle of Regular Hexagon?
 - a)72⁰ b) 120⁰ c)108⁰ d)60⁰
- iv) Which of the following is true for 1st Angle Projection System
 - a) Observer – Object - Plane of Projection b) Observer – Plane of Projection – Object
 - c) Object – Observer – Plane of Projection d)None of this

- v) When we are cutting the cone Inclined to its base then the curve generate at the cutting surface is_____
- a) Ellipse b) Parabola c)Hyperbola d)Cycloid
- vi) Which type of line is used for visible outline?
- a) Continuous Thick (0.5mm) b) Dashed Thin c) Chain Thin d) Chain Thick
- vii) If any point is lies in 3rd quadrant then its position will be represented by.....
- a) Above H.P & In Front of VP b) Above H.P & Behind V.P.
c) Below H.P & In Front of VP d) Below H.P & Behind V.P.
- viii) Which size of lead is used in Engineering Graphics/Drawing?
- a) 0.5 mm b) 0.7 mm c) 0.9 mm d)1 mm
- ix) Which of the following angle will be measure by set square without using protector?
- a) 25⁰ b) 35⁰ c) 45⁰ d)100⁰
- x) Which of the following curve used on designing a profile of Gear Tooth?
- a)Ellipse b)Parabola c)Spiral d)Cycloid
- xi) In Aligned dimensioning system we have to write down the dimension.....
- a)above the dimension line b) below the dimension line
c) in between the dimension line d)none of this
- xii) Which of the following is true for 3rd Angle Projection System
- a) Observer – Object - Plane of Projection b) Observer – Plane of Projection – Object
c) Object – Observer – Plane of Projection d)None of this
- xiii) Which type of line is used for Hidden Lines?
- a) Continuous Thick (0.5mm) b) Dashed Thin c) Chain Thin d) Chain Thick
- xiv) Which type of lead is used in Engineering Graphics/Drawing?
- a) H & 2H b) HB c) B d) B & 2B
- xv) Which of the following curve has eccentricity is greater than 1?
- a)Ellipse b)Parabola c)Spiral d)Hyperbola
- xvi) If any point is lies in 2nd quadrant then its position will be represented by.....
- a) Above H.P & In Front of VP b) Above H.P & Behind V.P.
c) Below H.P & In Front of VP d) Below H.P & Behind V.P.
- xvii) In Projection of lines when summation of its true inclination is 90⁰thane which of the following is true?
- a) $\alpha = \beta$ b) $\alpha \neq \beta$ c) $\alpha < \beta$ d) $\alpha > \beta$

- xviii) The value of Isometric Scale istimes to the Normal scale
 a)0.816 b) 1.5 c) 2 d) All of this
- xix) What is the Internal Angle of Regular Pentagon?
 a)72⁰ b) 120⁰ c)108⁰ d)60⁰
- xx) Which of the following curve has eccentricity is less than 1?
 a)Ellipse b)Parabola c)Spiral d)Hyperbola

Q.2 A) Define the following term (Any five out of seven questions) (05)

- (1) Eccentricity
- (2) Representative Fraction
- (3) Cycloid
- (4) Conic Curves
- (5) Orthographic Projection
- (6) Tetrahedron
- (7) Auxiliary Inclined Plane/Auxiliary Horizontal Plane

Q.2 B) Answer the following (Any five out of seven questions) (05)

- (1) Draw the symbol of 1st Angle Projection System.
- (2) What do you mean by Auxiliary Vertical Plane?
- (3) What do you mean by Solid of Revolution?
- (4) What do you mean by lateral surface of the solid?
- (5) Draw the circle of 70 mm diameter in isometric view.
- (6) Enlist the instrument used in Engineering Drawing/Graphics.
- (7) Draw the symbol of 3rd Angle Projection System.

Q.3 Write Short notes (Any five out of six questions) (10)

- (1) Write down the application of Conic Curves?
- (2) Draw the F.V. and T.V. of the right circular cone of base circle diameter 50mm and 80mm high resting on H.P. on its base.
- (3) Explain Isometric Scale.
- (4) Why we are not using 2nd and 4th Angle Projection System.
- (5) Write down the application of Involute & Cycloidal Curves?
- (6) Write Down the difference between Uni-Directional and Aligned Dimensioning System.

Q.4 Long Questions (Any three out of four questions) (15)

- (1) Draw an Ellipse whose major and minor axis are 120mm and 90mm apart.
- (2) A straight line AB is 60 mm long. It is inclined to H.P. and V.P. by an angle of 30° and 45° respectively. Point A is 15 mm above H.P. and 15 mm in front V.P. Draw projections of straight line AB.
- (3) A cylinder diameter of base 50 mm and height 70 mm is resting on HP on its base. It is cut by an AIP bisecting the axis and making an angle of 40⁰ with HP. Draw the development of lateral surfaces.
- (4) A square plate of side 50 mm is held on a corner on H.P. Plate is inclined to the H.P. such that the plan is seen as rhombus with a diagonal of 40 mm. Determine the angle it makes with H.P. The other diagonal is inclined at 45° V.P. Draw the projection of plate.