

B.Tech  
1<sup>st</sup> Sem  
2022

**Department of Food Technology**  
**School of Interdisciplinary Sciences and Technology**  
**Jamia Hamdard, New Delhi-110062**  
End Semester Examination April, 2023.  
B Tech 1<sup>st</sup> Semester  
Paper Title: Engineering Graphics & Design;  
Paper Code: BFTC – 104

**Time: 3 Hours**

**Maximum Marks: 60**

**IMPORTANT INSTRUCTIONS**

- (i) Read the instructions and questions carefully
- (ii) Write your Name, Roll Number and Class along with Section in the title block on first sheet.
- (iii) Use both sides of the drawing sheet to write your answers.
- (iv) You're allowed to use maximum two sheets and don't leave blank spaces.
- (v) Show all necessary dimensions and text of the solution on your drawing.
- (vi) Double-check your work before submitting.

**PART – A**

(All questions are compulsory)

(4X 5 = 20)

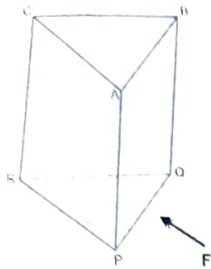
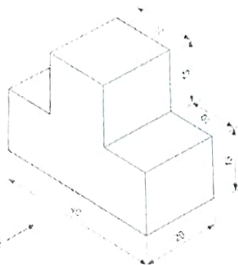
| Q. No | Questions                                                                                                                                                    | Marks | Course Outcomes |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|
| Q.1   | Write free hand in single stroke vertical capital letters in 3mm.                                                                                            | 5     | CO3             |
| Q.2   | Divide a given line of 90mm length into seven equal parts.                                                                                                   | 5     | CO1             |
| Q.3   | A line PQ 50mm in length is perpendicular to the horizontal plane and 50mm in front of the vertical plane. End Q is 15mm above the H.P. Draw its projection. | 5     | CO2             |
| Q.4   | Draw an angle of 60 degree and bisect it with the help of a compass.                                                                                         | 5     | CO3             |

**PART – B**

(Attempt any Four questions out of Five)

(2 X 10 = 40)

| Q No | Questions                                                                                                                                                       | Marks | Course Outcomes |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|
| Q.1  | A point Q is 20 mm above H.P and 25 mm in front of V.P. Draw its projection.                                                                                    | 10    | CO 4            |
| Q.2  | Construct a diagonal scale of RF = 1/500 to show meters and decimeters, and long enough to measure upto 70 meters. Measure a distance 53.4 meters on the scale. | 10    | CO 1            |
| Q.3  | A square plane of 40 mm has its surface parallel to V.P and perpendicular to H.P. Draw its projections when one of the side                                     | 10    | CO 2            |

|            |                                                                                                                                                                                                                                                                            |           |         |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------|
|            | is inclined at an angle of 30 degree.                                                                                                                                                                                                                                      |           |         |
| <b>Q.4</b> | <p>Draw a top and front view of a cube of 40 mm edges, is at 20 mm from V.P with its top face parallel to H.P and parallel to H.P and front face parallel to V.P as shown in figure.</p>  | <b>10</b> | CO<br>4 |
| <b>Q.5</b> | <p>Fig. shows an isometric view of an object. Draw the following views: (Use 1st angle projection). 1. Front view 2. R.H. Side view</p>  <p>3. Top view</p>                               | <b>10</b> | CO<br>1 |