



21718

17456

3 Hours / 100 Marks

Seat No.

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- Instructions :** (1) *All questions are compulsory.*
(2) *Answer each next main question on a new page.*
(3) *Illustrate your answers with neat sketches wherever necessary.*
(4) *Figures to the right indicate full marks.*
(5) *Use of Non-programmable Electronic Pocket Calculator is permissible.*

Marks

1. Attempt any five :

(5×4=20)

- Define precision and Accuracy.
- Compare line standard and end standards.
- State the different types of tools used for marking.
- State the method of drawing an ellipse by an elliptical trammel.
- State the method of hot shrinking for straightening.
- Explain the used of chalk line for drawing a long straight line.
- State any four applications of composites.
- State the need of cleaning and coating.

2. Attempt any four :

(4×4=16)

- State the types of materials used for template with its use.
- Explain the method of flat circles for flatness testing.
- State the essentials of plant layout.
- State the methods of marking out holes in angle section by using templates.
- State the compositions of composites.
- Explain the use of V-block for roundness measurement.

3. Attempt any four :

(4×4=16)

- Give the broad classification of measurement.
- Explain the method of surface cleaning (chemical method).
- Explain box template.
- Draw and explain process layout.
- Explain any one processing technique used for composites.
- State the methods of marking out bolt holes for flanges.

P.T.O.

**Marks****4. Attempt any two:****(8×2 =16)**

- a) Define plant layout. State the factors influencing plant layout.
- b) State and explain the method used for marking out instrumental panel.
- c) State and explain the method used for marking hopper plate by using a template.

5. Attempt any four:**(4×4 =16)**

- a) State the use of applied stiffeners.
- b) Explain the use of heat triangles.
- c) Explain any one method used for straightness testing.
- d) How template acts as a means of checking ?
- e) Explain thermal method of surface cleaning.
- f) Explain the method of stiffening large panel.

6. Attempt any four :**(4×4 =16)**

- a) Explain the use of heat strip for straightening.
 - b) Explain Dry method of surface cleaning .
 - c) State the techniques used for storage of template.
 - d) State the requirement of web stiffener with a neat sketch.
 - e) What is Dynamics of plant layout ?
 - f) What are the different methods used for stiffening sheet metal (any two) ?
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