



17456

11718

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) *All questions are **compulsory**.*
 - (2) *Illustrate your answers with neat sketches **wherever** necessary.*
 - (3) *Figures to the **right** indicate **full** marks.*
 - (4) *Assume suitable data, if **necessary**.*
 - (5) *Use of Non-programmable Electronic Pocket Calculator is **permissible**.*
 - (6) *Mobile Phone, Pager and any other Electronic Communication devices are **not** permissible in Examination Hall.*

Marks

1. Attempt any five of the following :

20

- a) Define :
 - i) Repeatability
 - ii) Calibration
 - iii) Sensitivity
 - iv) Reliability.
- b) Differentiate between line standard and end standard (At least four points).
- c) How templates plays a role to guide for cutting processes ?
- d) State the need for web stiffeners.
- e) Differentiate between the use of heat triangles and triangles of heat strips.
- f) Explain processing of composites.
- g) What is surface cleaning ? State the methods of surface cleaning.
- h) Give the detail classification of measurements.

2. Attempt any two :

16

- a) Enlist the tools used in marking. Explain method of marking out bolt holes for flanges.
- b) State the methods used to test straightness. Explain spirit level method for measuring straightness of any object.
- c) Enlist the materials used for templates. Explain the use of templates for hopper plates.

P.T.O.

**Marks**

- 3. Attempt any two :** **16**
- a) Explain any one method of manual and machine straightening with neat sketch.
 - b) What are the methods of stiffening sheet metal. Explain the method of stiffening large panels with neat labelled sketches.
 - c) What are the types of layout ? Explain any two with neat block diagram.
- 4. Attempt any two :** **16**
- a) Classify composites. Explain the detail procedure for joining of composites.
 - b) Enlist mechanical cleaning process. Explain any one in detail.
 - c)
 - i) State the need of coating.
 - ii) Give two examples of each layout.
- 5. Attempt any two :** **16**
- a) Explain the procedure for marking out instrument panel.
 - b) State the need of templates. Explain the use of templates to provide an economical arrangement of layout for press work.
 - c) What are the methods of stiffening sheet metal. Explain any one with neat labelled sketches.
- 6. Attempt any four :** **16**
- a) State the factors influencing a factory layout.
 - b) What do you understand by dynamics plant layout.
 - c) Why cleaning process is necessary ?
 - d) Write the shop method of drawing an ellipse.
 - e) Explain how to use of tensioned wire for assignment testing.
 - f) Write the process for marking a hole in T-sections.
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