



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 199131

Roll No.

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B. Tech.

(SEM. II) THEORY EXAMINATION, 2014-15 BASIC MANUFACTURING PROCESS

Time : 2 Hours]

[Total Marks : 50

Note : Attempt questions from each section as per instructions.

SECTION - A

Attempt all parts of this question. Each part **1×10=10** carries 1 mark :

- 1 (a) Define creep fracture.
- (b) Give some example of ductile materials.
- (c) In which form carbon is present in grey cast iron.
- (d) Write the name of any two alloys of copper.
- (e) Give two examples of forging products.
- (f) Which materials are used to make non consumable electrodes?

- (g) Why draft allowance is provided with pattern?
- (h) Why clapper box is use in shaper?
- (i) Which layout is suitable for batch production?
- (j) What do you mean by composite material?

SECTION - B

Attempt any three parts of this question.

5×3=15

Each question carries 5 marks :

- 2
- (a) What do mean by heat treatments? Explain the objective of heat treatments and its process.
 - (b) What are the desirable properties of moulding sand? Explain each in brief.
 - (c) What is the principle of gas welding? List the various types of flames generated in oxy-acetylene gas welding and also indicate the applications of each.
 - (d) Explain the working principle of rolling. List the different types of rolling mills configurations. Explain any one.
 - (e) Explain plastics with their properties. Differentiate between thermosetting plastic and thermo plastic.

SECTION - C

Attempt all questions of this section.

5x5=25

- 3** What is wrought iron? Explain its properties and applications. How stainless steel does become stainless?

OR

- 3** What are the major uses of aluminium? List the various types of aluminium alloys. Explain any one.
- 4** Explain with neat sketches, the basic working principle of extrusion. Describes its applications in industry. Name the four extruded products.

OR

- 4** (i) Differentiate between hot and cold working of metals.
- (ii) Explain the process of wire drawing with neat sketch.
- 5** With the help of schematic sketch, describe the basic working principle and important parts of drilling machine. List the various allied processes which are performed by use of it.

OR

- 5** (i) Explain the difference between soldering and brazing?
- (ii) Define straight polarity and reverse polarity.

- 6 Explain different types of plant layout with their advantages and disadvantages and explain the factors which affect the plant layout.

OR

- 6 (i) What is the difference between production and productivity?
(ii) Explain Powder metallurgy with applications.
- 7 Write short notes on any two of the following:
- (a) Press works and its operations
 - (b) Ceramics
 - (c) Cupola furnace
 - (d) Electroplating and Galvanizing.