

Section-C

Attempt **any two** question from this section. (15×2=30)

10. Explain Lathe Machine with neat sketch and also discuss various operations to be performed.
11. Draw the block diagram of a milling machine and describe. What are different operations performed in milling machine?
12. Write short notes on;
 - a) Heat Affected Zone
 - b) Cupola Furnace
 - c) Die and Punch Assembly.

—x—

Printed Pages : 4

1321

NME-101

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

Paper ID : 140101

Roll No.

B.Tech.

(SEM. I) THEORY EXAMINATION, 2015-16

BASIC MANUFACTURING PROCESSES

[Time : 3 hours]

[Total Marks: 100]

Section-A

1. Attempt **all** sections. All sections carry **equal** mark. Write answer of each section in short. (2×10=20)
 - (a) Define toughness. How is it different from resilience?
 - (b) How cast iron is classified? Write the percentage of carbon in cast iron.
 - (c) What is the purpose of normalizing?
 - (d) Why non-ferrous metals are preferred in some applications?

- (e) What is the difference between production and productivity?
- (f) What is the purpose of Core in casting?
- (g) Differentiate between up milling and down milling.
- (h) Differentiate between Drilling, Reaming, and Boring?
- (i) What is the principle of Resistance Welding?
- (j) Give names of different types of plant layout.

Section-B

Attempt any five questions from this section. (10×5=50)

- 2. Discuss in detail stress-strain diagram for ductile and brittle materials.
- 3. What are the types and desirable properties of moulding sand? Discuss different type of casting defects its remedies.

- 4. Discuss the difference between hot working and cold working processes. With appropriate diagrams explain basic Rolling and Forging processes.
- 5. Draw the neat sketch of shaper and specify its different parts. How it differs from Planer machine.
- 6. Explain with neat sketch, the working principle of Extrusion. Describe indirect extrusion and hydrostatic extrusion. State their applications.
- 7. Explain Gas Welding Process? What are the types of flames used in Gas Welding? Explain Soldering and Brazing.
- 8. Classify different welding processes. Explain Metal Arc welding in detail with a neat sketch.
- 9. What are the objectives of plant layout? Write advantages and disadvantages of each plant layout.