

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

Paper ID : 199216

Roll No.

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B.TECH.

Theory Examination (Semester-II) 2015-16

MANUFACTURING PROCESSES

Time : 3 Hours

Max. Marks : 100

Note: Attempt questions from all sections as per instruction.

Section-A

1. Attempt all parts of the following: (2×10=20)

- (a) Differentiate between Toughness & Resilience.
- (b) Brass and Bronze are alloys of
- (c) Differentiate between Rolling & Extrusion.
- (d) Deep drawing is a operation.
- (e) What is Annealing?

- (f) What do you understand by cutting speed, feed & depth of cut in machining?
- (g) Elaborate the following:
 - (i) Machinability
 - (ii) Formability
- (h) Differentiate between Production & Productivity.
- (i) What is Plant? Explain the factors affecting plant location?
- (j) Explain the function of flux in welding.

Section-B

2. Attempt any five parts of the following: (10×5=50)

- (a) What is Fracture? Explain ductile and brittle Fracture with suitable example.
- (b) Explain the following properties of materials with suitable examples:
 - (i) Stiffness
 - (ii) Brittleness
 - (iii) Hardness
 - (iv) Resilience
 - (v) Toughness

- (c) What is moulding sand? Explain different types of moulding sand.
- (d) Explain different types of pattern allowances with neat sketches.
- (e) With the help of sketch, explain the basic components of lathe machine and various operations performed on it.
- (f) Differentiate between shaper and planer. With the help of neat sketch, explain the basic components of shaper.
- (g) Explain the working principle of electric arc welding. Explain different types of resistance welding with the help of neat sketch.
- (h) What do you mean by case hardening? Explain different methods of case hardening in detail.

Section-C

Note: Attempt any two parts of the following. (15×2=30)

- 3. (a) What is Fatigue? Explain fatigue with S-N curve.
- (b) What do you mean by Rolling? Explain different types of rolling mills with neat sketch.

4. (a) What is Extrusion? Differentiate between extrusion and rolling.
- (b) What is plant layout? Describe its different types with suitable examples.
5. What is powder metallurgy? Explain different steps in manufacturing of powder metallurgy parts. Explain advantages, limitations and applications of powder metallurgy.

