

Exam.Code:0939

Sub. Code: 7044

1119

B.E. (Mechanical Engineering)
Third Semester
MEC-305: Manufacturing Processes

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What is creep?
- b) Cast iron is stronger in which test condition (compression or tension)? & Why?
- c) Define Piercing.
- d) What is Reverse polarity in EAW?
- e) What do you mean by Fettling? (5x2)

UNIT – I

II. a) What is free cutting steel?

b) How are non-ferrous metals classified? Write also Aluminium alloy applications. (2x5)

III. a) Compare wrought iron, mild steel and hard steel w.r.t. composition & property.

b) Explain forging defects with sketch. (2x5)

IV. a) What is impact extrusion? Also write its applications.

b) What is shot peening? How the property of base material affected by shot peening? (2x5)

UNIT – II

V. a) What is lost wax process? Write its application also.

b) What is the function of core and chaplets? Also write and sketch types of chaplet. (2x5)

VI. a) Differentiate between GMAW and GTAW.

b) Explain principle of operation, self-adjusted and self-controlled arc characteristics in TIG welding. (2x5)

VII. a) How metal transfer takes place in arc welding process?

b) Explain property of moulding sand. (2x5)

x-x-x