Exam.Code:0941 Sub. Code: 7056

1128

B.E. (Mechanical Engineering) Fifth Semester MEC-505: Manufacturing Technology –II

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt <u>five</u> questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.

X-X-X

- I. Attempt the following:
 - a) What are the units of surface roughness?
 - b) Name the parts of 2-plate injection mold?
 - c) List steps involved in process of powder metallurgy?
 - d) How do you determine particle size distribution by Sieve Analysis?
 - e) Sketch the bevel gears and worm gears?
 - f) Write any two differences between compression and Injection molding.
 - g) What is shut height in press operations?
 - h) Sketch the press power mechanism?
 - i) What is difference between blanking and piercing?
 - j) What is Galvanizing?

(10x1)

UNIT-I

- II. What is the role of lubricants in powder compaction?
 - a) Explain solid state sintering briefly.
 - b) Give detail about hot isostatic pressings. How are they advantageous? (5,5)
- III. a) With the help of neat sketches, explain the Gear teeth terminology?
 - b) Explain the process of gear hobbing process in detail with the help of neat diagrams? (5,5)
- IV. a) What are the size and specifications of a power press?
 - b) Describe the Power press driving Mechanism?

(5,5)

P.T.O.

UNIT-II

- V. Describe the design procedure for progressive die and combination die? (10)
- VI. a) Explain the working principles and typical applications of Injection moulding with the help of neat sketches?
 - b) Write a brief note on
 - i) Blow moulding and
 - ii) Rotational moulding

(5,5)

- VII. a) Write short notes on following:
 - i) Honing
 - ii) Lapping
 - iii) Polishing
 - iv) . Buffing
 - v) Super Finishing
 - b) Describe in detail the Electroplating process with its theory and applications. (5,5)