



CBCS SCHEME

17AU36

Third Semester B.E. Degree Examination, Dec.2019/Jan.2020 Manufacturing Process – I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define manufacturing process with a suitable sketch. Explain the classification of manufacturing process. (10 Marks)
b. Sketch and explain different pattern allowances. (10 Marks)

OR

- 2 a. List out the properties of base sand. (06 Marks)
b. Write the advantages and disadvantages of green sand mould. (08 Marks)
c. Explain the various casting defects. (06 Marks)

Module-2

- 3 a. Sketch and explain the following moulding process.
i) Jolt machine (10 Marks)
ii) Squeeze machine. (10 Marks)
b. Explain with a neat sketch of investment moulding process and list out the advantages and disadvantages. (10 Marks)

OR

- 4 a. Sketch and explain the cold chamber die casting process and write limitation of this process. (10 Marks)
b. With respect to different zones and their chemical reaction, explain cupola furnace with neat figure. (10 Marks)

Module-3

- 5 a. Define welding. Broadly classify welding process. (08 Marks)
b. Write a note on clearing and edge preparation in welding. (06 Marks)
c. Describe the principle of flux shielded Metal arc welding with sketch. (08 Marks)

OR

- 6 a. Briefly explain the oxy-acetylene gas welding with a sketch and list the advantages and disadvantages. (10 Marks)
b. Explain Tungsten inert gas welding with neat sketch and list out application of (TIG). (10 Marks)

Module-4

- 7 a. With neat sketch explain the laser beam welding process. Mention the advantages and its applications. (10 Marks)
- b. Describe the following welding process :
- i) Butt melding
 - ii) Spott welding
 - iii) Seam welding. (06 Marks)
- c. Explain the principle of resistance welding. (04 Marks)

OR

- 8 a. Explain different zones which are formed during welding process. (08 Marks)
- b. What are the methods to reduce effects caused by shrinkage? (08 Marks)
- c. List out the various welding defects. (04 Marks)

Module-5

- 9 a. Mention the difference between Brazing and soldering. (08 Marks)
- b. Explain the principle involved in soldering and also the type of soldering. (06 Marks)
- c. Explain with neat sketch torch brazing. (06 Marks)

OR

- 10 a. Explain the different inspection methods of welding. (08 Marks)
- b. Write the steps involved in ultrasonic inspection. (08 Marks)
- c. List out the advantages and limitation of radiography inspection. (04 Marks)
