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Third Semester B.E. Degree Examination, Dec.2023/Jan.2024
Manufacturing Process

Time: 3 hrs.

Max. Marks: 100

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

Module-1

1 a. Briefly explain the steps involved in metal casting process with a simple sketches. **(10 Marks)**
   b. List out the type of patterns and explain any 4 types of pattern with sketches.   **(10 Marks)**

OR

2 a. List different types of sand moulding and discuss any one type moulding and its advantages.
   (10 Marks)
   b. What are cores? Briefly explain their significance in sand moulding process.   **(10 Marks)**

Module-2

3 a. Describe the pressure die casting technique with appropriate sketches.   **(10 Marks)**
   b. With neat sketch, describe the investment casting.   **(10 Marks)**

OR

4 a. Explain the constructional features, working of cupola furnace with a suitable sketch.
   (10 Marks)
   b. List the different types of casting defects and explain any four defects.   **(10 Marks)**

Module-3

5 a. Define welding and list out its advantages, limitations and applications.   **(10 Marks)**
   b. With a neat sketch, explain oxyacetylene welding process.   **(10 Marks)**

OR

6 a. List out the difference between forwards and backward welding process.   **(10 Marks)**
   b. What is TIG (Tungsten Inert Gas) welding? Explain working of TIG.   **(10 Marks)**

Module-4

7 a. With neat sketches, describe various types of forging process.   **(10 Marks)**
   b. Briefly explain the elastic, plastic deformation and strain hardening.   **(10 Marks)**

OR

8 a. List out the different press working process. Explain any two processes.   **(10 Marks)**
   b. With a neat sketch, explain different types of rolling mill arrangement.   **(10 Marks)**

Module-5

9 a. Draw a neat sketch of a single point cutting tool nomenclature. Explain briefly.   **(10 Marks)**
   b. List and explain any four types of cutting tool materials.   **(10 Marks)**

OR

10 a. Explain with a neat sketch, capstan and turret lathe.   **(10 Marks)**
   b. Sketch and explain the principle parts of horizontal shaper machine.   **(10 Marks)**

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