CBCS SCHEME

USN | | | | | | | | | | |

18MT44

Fourth Semester B.E. Degree Examination, Dec.2024/Jan.2025
Manufacturing Technology

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. What is manufacturing process? **(02 Marks)**
b. List the advantages and disadvantages of casting. **(06 Marks)**
c. Sketch and explain match plate and sweep pattern. **(12 Marks)**

OR

2 a. Define Core. List the different types of Core. Explain any one of them. **(10 Marks)**
b. What is Casting? Explain the steps involved in casting and give components produced by casting. **(10 Marks)**

Module-2

3 a. Explain the classification of metal working process. **(10 Marks)**
b. Define Forging. Explain any 2 forging operations. **(10 Marks)**

OR

4 a. With a neat sketch, explain two high rolling mills and cluster mill. **(10 Marks)**
b. With a neat sketch explain Rod drawing process. **(10 Marks)**

Module-3

5 a. With a neat sketch, explain Direct and Indirect extrusion process. **(06 Marks)**
b. Describe with a neat sketch, Atomic hydrogen welding process. **(08 Marks)**
c. State the advantages and limitations of welding process. **(06 Marks)**

OR

6 a. Explain various forms of punching with neat sketch. (any four). **(06 Marks)**
b. Write the parameters affecting drawability. **(04 Marks)**
c. Elaborate with sketch, Flux Shielded Metal Arc Welding (FSMAW). **(10 Marks)**

Module-4

7 a. Explain with a neat sketch Laser Beam Machining. Lists its advantages. **(10 Marks)**
b. Explain with a neat sketch the Electron Beam Machining Process and list its advantages. **(10 Marks)**

OR

8 a. With a neat sketch, explain ultra sonic machining process and list its advantages. **(10 Marks)**
b. Explain with a neat sketch working principle of Plasma Arc Machining (PAM) Process. List its advantages. **(10 Marks)**

Module-5

9	a.	Explain the basic components of CNC machine tool.	(10 Marks)
	b.	Explain the configuration of CNC machine control unit.	(10 Marks)

OR

10	a.	List and explain four types of CNC machining centres.	(10 Marks)
	b.	Explain the advantages, disadvantages and application areas of CNC.	(10 Marks)

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