

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL - 2024**

MANUFACTURING TECHNOLOGY

[Maximum Marks : 75]

[Time : 3 hours]

PART-A

I. Answer all the following questions in one word or sentence. Each question carries 1 mark.

(9x1=9 marks)

		Module Outcome	Cognitive level
1	Define hardness of material.	M1.01	R
2	Define gating system.	M1.05	R
3	Define recrystallisation temperature.	M2.02	R
4	Name the different process of powder metallurgy.	M2.05	R
5	Write the difference between soldering and brazing.	M3.05	U
6	What are the functions of flux?	M3.03	U
7	Name different types of welded joints.	M3.04	R
8	Name any two press working operation.	M4.03	R
9	What are the types of hammer used in smithy?	M4.02	R

PART B

II. Answer any Eight questions from the following. Each question carries 3 marks.

(8x3=24 marks)

		Module Outcome	Cognitive level
1	What are the advantages of casting?	M1.01	U
2	Write short note on Split pattern.	M1.02	R
3	Draw the schematic diagram of sand moulding process.	M1.04	U
4	Mention any three applications of powder metallurgy.	M2.05	R
5	Define hot working process and name different hot working operations.	M2.04	R
6	Draw the schematic diagram of different oxy acetylene flames.	M3.02	U
7	Describe spot welding process.	M3.03	U
8	Draw any six welding symbols.	M3.04	U
9	Differentiate between hot chisel and cold chisel used in smithy shop.	M4.02	U
10	State the functions of fullers, flatters and swages.	M4.02	U

PART C

Answer **all** questions from the following. Each question carries 7 marks.

(6x7=42marks)

		Module Outcome	Cognitive level
III	Name the allowances generally given to a pattern and explain each allowances. OR	M1.02	U
IV	What are the properties of good molding sand? Explain each property in detail.	M1.03	U
V	Explain the mechanical properties associated with engineering materials. OR	M1.01	R
VI	What are the common materials used for pattern making? Explain each material and also mention advantages and disadvantages of each.	M1.02	U
VII	Sketch and describe cold chamber die casting process. OR	M2.01	U
VIII	What is powder metallurgy? Describe the basic steps in powder metallurgy.	M2.05	U
IX	Explain oxy acetylene welding process with neat diagram. OR	M3.04	U
X	Compare between welding, soldering and brazing	M3.05	U
XI	Describe Thermit welding and mention its advantage and disadvantages. OR	M3.03	U
XII	With diagrams explain types of joints in Arc welding.	M3.04	U
XIII	Explain different forging operations. OR	M4.04	U
XIV	Explain open die forging and closed die forging operations.	M4.02	U
