

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/  
MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2025**

**MODERN PRODUCTION PROCESS**

[Maximum Marks: 75]

[Time: 3 Hours]

**PART-A**

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

**(9 x 1 = 9 Marks)**

		Module Outcome	Cognitive level
1.	Name four different types of fixtures.	M1.01	R
2.	What is diffusion coating?	M1.02	R
3.	Write any two functions of dielectric fluid used in EDM.	M2.01	R
4.	What is MRR?	M2.03	R
5.	Compare G codes and M codes.	M3.01	U
6.	Identify any 2 limitations of 3D printing.	M3.03	A
7.	What is CIM?	M4.03	R
8.	Write any 2 disadvantages of ECM.	M2.02	R
9.	What is an automatic tool changer?	M4.02	R

**PART-B**

**II. Answer any ‘eight’ questions from the following. Each question carries ‘three’ marks.**

**(8 x 3 = 24 Marks)**

		Module Outcome	Cognitive level
1.	Illustrate about box type jig along with a simple diagram.	M1.01	U
2.	List the differences between jigs and fixtures.	M1.01	R
3.	Explain the principle of EDM.	M2.02	U
4.	What are the applications of Laser beam machining?	M2.03	R
5.	Identify the main limitations of CNC.	M3.01	A
6.	Explain the applications of rapid prototyping.	M3.03	U
7.	How do you classify CNC system based on control system?	M3.01	R
8.	What are the industrial applications of robots?	M4.02	R
9.	Name the various aspects of machining centers in CNC.	M3.01	R
10.	Identify the key aspects of part family.	M4.02	A

**PART-C**

Answer 'all' questions from the following. Each question carries 'seven' marks.

**(6 x 7 = 42 Marks)**

		Module Outcome	Cognitive level
III.	Compare Physical and Chemical vapour deposition. <b>OR</b>	M1.03	U
IV.	Identify the various fixtures used for Turning operations.	M1.01	A
V.	Explain in detail about ECM. List down the various applications. <b>OR</b>	M2.02	U
VI.	Explain the working of Wire cut EDM? Discuss the various applications of the process.	M2.02	U
VII.	Explain the different types of tool magazine and give its significance. <b>OR</b>	M3.02	U
VIII.	What are M codes in CNC programming? List down 5 main M codes.	M3.02	R
IX.	Illustrate the various parts of a robot anatomy? Explain their working. <b>OR</b>	M4.03	U
X.	Identify the key components of FMC.	M4.02	A
XI.	Explain the classification of non conventional machining processes. List the various advantages. <b>OR</b>	M2.02	U
XII.	Explain the principle of working of Electrochemical machining with the help of a neat sketch.	M2.02	U
XIII.	Explain Group Technology and its benefits. <b>OR</b>	M4.02	U
XIV.	What are the various types of joints used in a robot?	M4.03	R

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