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(Revision – 2021)

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Reg. No……
Signature…….

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2024

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.	Type of jig comprises a drill plate that rest on the components to be drilled is.....	M1.01	A
2.	Porous product can be effectively produced using.....	M1.02	R
3.	..... is a PVD technique in which bulk material is released into the vacuum by bombardment from an iron source.	M1.03	R
4.	Write the expansion of LASER.	M2.02	A
5.	Ultrasonic machining removes materials by.....	M2.02	R
6.	The full form of MCU is.....	M3.01	R
7.	The code used to return to reference point.	M3.02	U
8.	Manufacturing approach of using computers to control the entire production process.	M4.01	U
9.	The space inside that a robot unit operates is called.....	M4.03	A

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.	Differentiate jigs and fixtures.	M1.01	R
2.	Describe the principle of chemical vapor deposition.	M1.03	R
3.	Discuss the advantages of metal spraying.	M1.03	R
4.	List the important requirements of good electrolyte used in ECM.	M2.01	U
5.	Describe the working of AJM.	M2.02	R
6.	State the advantages of USM.	M2.03	A
7.	Explain rapid prototyping.	M3.03	U
8.	Write short notes on Computer Aided Process Planning (CAPP).	M4.02	U
9.	List the benefits of group Technology.	M4.02	U
10.	Identify the industrial applications of robots.	M4.03	A

PART-C

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

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Name different types of jigs and explain channel jig with the help of a figure.	M1.01	U
	OR		
IV.	Explain the various process steps involved in powder metallurgy.	M1.02	U
V.	Enumerate the classification of Unconventional machining process.	M2.01	R
	OR		
VI.	Explain Ultrasonic Machining with neat sketch.	M2.02	U
VII.	Illustrate Laser Beam Machining (LBM).	M2.02	U
	OR		
VIII.	Write the advantages and Limitations of EDM.	M2.03	U
IX.	Describe 3D printing.	M3.03	U
	OR		
X.	Describe any seven miscellaneous functions.	M3.02	U
XI.	Explain the basic components of NC system.	M3.01	U
	OR		
XII.	State the use of following G-codes. (G02, G01, G05, G03, G90, G91, G33, G94).	M3.02	A
XIII.	Illustrate the Flexible Machining Cell with short notes.	M4.02	R
	OR		
XIV.	Describe various types of joints used in Robot.	M4.03	R

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