TED (15/19) 6021
(Revision-2015/19)

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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/ COMMERCIAL PRACTICE, APRIL - 2025

ADVANCED PRODUCTION PROCESSES

[Maximum marks: 100]   [Time: 3 Hours]

PART – A
Maximum marks: 10

I.   (Answer *all* the questions in one or two sentences. Each question carries **2** marks)

1. Explain the term tool layout.

2. Distinguish blanking and piercing.

3. Name any two natural abrasives.

4. Describe the principle of CAM.

5. Define industrial robot.   (5 x 2 = 10)

PART – B
Maximum marks: 30

II.   (Answer any *five* of the following questions. Each question carries **6** marks)

1. Describe hexapod machines.

2. List various tool holding devices.

3. Describe the principle of minimum locating points.

4. Elucidate the jig boring machines.

5. State advantages and disadvantages of EDM.

6. Describe the working of AJM.

7. List the benefits of CAD.   (5 x 6= 30)

PART – C
Maximum marks: 60
(Answer *one full* question from each unit. Each full question carries **15** marks)

UNIT – I

III.   (a)   Explain the parts of a turret lathe with a neat sketch.   (8)

(b)   List any five differences between turret lathe and capstan lathe.   (7)

<div align="center">**OR**</div>

IV.   (a) Explain the turret head indexing mechanism with the help of neat sketch.   (8)

      (b) Mention the advantages of automatic machines.   (7)

<div align="center">**UNIT – II**</div>

V.   (a) Explain with sketch the nomenclatures of a broach tooth.   (8)

   (b) List the method of gear manufacturing.   (7)

<div align="center">**OR**</div>

VI.   (a) Explain channel and template jig with figure.   (8)

    (b) Explain with neat sketch working of progressive die.   (7)

<div align="center">**UNIT - III**</div>

VII.   (a) Describe the working of centre less grinder with suitable figure.   (8)

    (b) Describe the term truing and dressing in a grinding wheel.   (7)

<div align="center">**OR**</div>

VIII. (a) Explain Ultrasonic machining with the help of neat sketch.   (8)

    (b) Illustrate Laser Beam Machining (LBM).   (7)

<div align="center">**UNIT – IV**</div>

IX.   (a) Describe the various components of a NC machine with block diagram.   (8)

    (b) Mention the concept of Computer Integrated manufacturing.   (7)

<div align="center">**OR**</div>

X.   (a) List and briefly explain the basic elements of Robots.   (8)

   (b) Explain the Variant and Generative techniques in CAPP.   (7)

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