

SECOND SEMESTER DIPLOMA EXAMINATION IN TOOL&DIE ENGINEERING

PRODUCTION ENGINEERING – I

(Maximum marks :100)

Time : 3 Hrs

PART- A

(Maximum marks :10)

Marks

I Answer the following questions in one or two sentences. Each question

Carries two marks

1. What is metal casting ?
2. Write the function of flux in welding.
3. List the various parts of an engine Lathe.
4. State the general uses of shaper.
5. Define the structure of grinding wheel.

[5 x 2 =10]

PART- B

(Maximum marks :30)

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

1. Draw the neat sketch of a Bench vice and mark the various parts.
2. Briefly describe an Arc welding process with a suitable figure.
3. Illustrate a four jaw chuck of an engine lathe and compare four jaw chuck and three jaw chuck.
4. What are the factors affecting tool life.
5. Write the specifications of a shaper.
6. Sketch and identify the various parts and angles of drill bit.
7. List various surface finishing processes and state its application.

[5 x 6 = 30]

PART-C

(Maximum marks :60)

(Answer one full question from each module. Each full question carries 15 marks)

MODULE-I

- III a) Explain different methods of filing with suitable sketch. (7)
- b) Illustrate the equipments required for oxy- acetylene gas welding and describe its working principle. (8)

OR

- IV a) Describe different types of Taps and Dies. (7)
b) Sketch and explain Laser beam welding process. (8)

MODULE-II

- V a) Draw the schematic diagram of a centre lathe and identify the parts. (7)
b) Explain a taper turning method which is performed by a lathe. (8)

OR

- VI a) Illustrate the dimensional attributes of lathe. (7)
b) Describe the nomenclature of a single point cutting tool. (8)

MODULE-III

- VII a) Describe the working principle of shaper with sketch. (7)
b) Identify the parts of a slotting machine and their functions (8)

OR

- VIII a) Describe the procedure for cutting grooves and key ways by shaper. (7)
b) State the working principle of a planer with line sketch. (8)

MODULE-IV

- IX a) Illustrate different types of drilling machine with line sketch (7)
b) Write short notes on : i) Galvanising, ii) Metal spraying. (8)

OR

- X a) Describe various work holding and tool holding devices used in drilling machines. (7)
b) Write short notes on : i) Electro plating. ii) Anodising. (8)
