

TIME: 2.30 HOURS

MARKS: 90

PART –A

Choose the correct option

15 x 1 = 15

1. The inventor of lathe is
 - a. Henry maudslay
 - b. Eli whitney
 - c. James nasmith
 - d. Michael faraday
2. A part used for taper turning
 - a. Cross – slide
 - b. Compound rest
 - c. Saddle
 - d. Apron
3. The lip clearance angle of a drill is
 - a. 59°
 - b. 118°
 - c. 12° to 15°
 - d. 135°
4. The groove in the body of the drill is
 - a. V-shape groove
 - b. U-shape groove
 - c. Flute
 - d. Straight shape groove
5. The operation mainly done in a shaping machine is
 - a. Turning
 - b. Drilling
 - c. Machining a flat surface
 - d. Thread cutting
6. The part involved in reciprocation by quick return is
 - a. Table
 - b. Ram
 - c. Saddle
 - d. Crossrail
7. The heat generated during dry grinding process will be
 - a. 20°c
 - b. 1000°c
 - c. 2000°c
 - d. 1200°c
8. The hardest natural abrasive is
 - a. Sand stone
 - b. Emery
 - c. Diamond
 - d. Corundum
9. In a milling machine, cutters are mounted on
 - a. Column
 - b. Spindle
 - c. Overhanging arm
 - d. Arbor
10. In a milling machine, travelling of work table is controlled by
 - a. Saddle
 - b. Trip dogs
 - c. Cross – slide
 - d. Elevating screw

11. Maintenance done once a year is known as
 - a. Routine maintenance
 - b. Preventive maintenance
 - c. Breakdown maintenance
 - d. Corrective maintenance
12. Plastic welding is
 - a. Pressure welding
 - b. Resistance welding
 - c. Fusion welding
 - d. Arc welding
13. Impeller is a part found in
 - a. Reciprocating pump
 - b. Gear pump
 - c. Centrifugal pump
 - d. Vane pump
14. IC refers to
 - a. Information control
 - b. Instruction control
 - c. Internal control
 - d. Integrated circuit
15. "The brains of Robot" is
 - a. Sensor
 - b. Control system
 - c. Piston
 - d. Gears

PART – B

Answer any ten of the following
Questions in one (or) two lines

10 x 3 = 20

16. Define "swing diameter" in lathe.
17. What is the use of "back gear" in lathe?
18. What are the special features of radial drilling machine?
19. Define "cutting speed" in drilling machine
20. What is the use of "clapper box" in shaping machine?
21. What is meant by "centre less grinding process"?
22. What is meant by "milling"?
23. What are the different types of "indexing head"?
24. What are the different types of maintenance?
25. Mention three types of flames in gas welding.
26. What are the different types of centrifugal pump?
27. What are the functions of input unit?
28. What are the types of automation based on application?

PART C

Answer any five of the following Questions for a Page

5 x 5 = 25

29. Mention the differences between turret and capstan lathe.
30. How do you specify the drilling machine?
31. List-out the types of shaping machine.
32. Explain with sketch the “truing of grinding wheel”
33. What are the differences between plain milling machine and universal milling machine.
34. Explain with sketch of “Greese Lubrication”.
35. Explain any two parts of gas welding with neat sketch

PART D

Answer the following Questions in detail.

2 x 10 = 20

36. Draw the diagram of a lathe and mention the parts
(or)
Explain the working principle of a “spindle” in drilling machine with neat sketch
37. Explain any two types of work holding devices in shaping machine with neat sketches
(or)
Explain the nomenclature of “Milling cutter” with neat sketch.