

1511

Register No.:

October 2024

Time – Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer any fifteen questions under Part-A. All questions carry equal marks. (15 X 2 = 30)
2. Answer all questions, choosing any two sub-divisions from each question under Part-B. All questions carry equal marks.(5 X 14 = 70) (7+7)]

PART- A

1. Who is a Mechanical Engineer?
2. Write down any two roles of a Mechanical Engineer in power generation.
3. Write down the importance of maintenance in industries.
4. List out any two functions of a Mechanical Engineer in logistics.
5. Name any two types of engineering materials.
6. What is meant by extrusion?
7. Write about wire drawing.
8. Write any two examples for permanent joint.
9. Name any two parts of lathe.
10. Write down the purpose of using coolant in drilling process.
11. Name any two parts of horizontal milling machine.
12. Mention any two applications of CNC.
13. Write down the applications of rope drives.
14. Write any two differences between spur and helical gear.
15. Name the types of lubricants.
16. Write down the purpose of lubrication.
17. List out any four parts of Diesel engine.
18. Mention the benefits of battery electric vehicles.
19. Define conduction heat transfer.
20. Write any two differences between vertical and horizontal axis windmill.

[Turn over...

PART- B

21. (a) Discuss about the roles and responsibilities of Mechanical Engineers in manufacturing sector.
(b) Discuss about the scope and opportunities of Mechanical Engineers in automobile sector.
(c) Discuss about the roles and responsibilities of Mechanical Engineers in materials management.
22. (a) Write about any seven mechanical properties of steel.
(b) Explain about the working of Mechanical press with neat sketch.
(c) Draw and explain about temporary joints with examples.
23. (a) Explain the working principle of lathe with neat sketch.
(b) Explain the working of upright drilling machine with neat sketch.
(c) Explain the working of vertical milling machine with neat sketch.
24. (a) Explain about V-belt drive with neat sketch.
(b) Explain about worm and worm wheel drive with neat sketch.
(c) List out the methods of lubrication and explain any one.
25. (a) Draw the simple layout of Steam power plant and explain.
(b) Explain the working of Four stroke Petrol engine with neat sketches.
(c) Explain about Solar power plant with neat sketch.
