SCHOOL OF DIPLOMA ENGINEERING, SOLDHA
QUESTIONS FOR REVISION
DIPLOMA ME 5TH SEM
SUBJECT-WT-III

VERY SHORT QUESTION (2 MARKS)

1. Draw a neat sketch of column and knee type Milling Machine.
2. Name any two materials of milling cutter.
3. Define Indexing.
4. Define cutting speed in Milling Machine.
5. Give any two elements of grinding wheel.
6. Define the balancing of Grinding Wheel.
7. Name any two method of Grinding.
8. Name any two methods of gear Manufacturing.
9. Define Gear shaping.
10. Name any two types of gears.
11. Define electrical discharge machining.
12. Name any two non conventional methods of machining.
13. Name the dielectric fluid used in EDM.
14. Give any two applications of metal spraying.
15. Is electroplating a metal coating process?
16. Name any two process of surface finishing.
17. Give any two applications of lapping
18. Give any two purpose of finishing surface.
19. In which type of modern machining process a transducer is used to convert electrical energy into mechanical energy.
20. Name the fundamental principle of ECM.
21. What for LBM and EBM stands?
22. State any two disadvantages of EBM.
23. Define metal Spraying.
24. The process of providing thin layer of zinc on metal steel is known as _____.
25. Define surface roughness.
26. Which process is commonly used to remove scratches and tool marks.
27. State which of the following is used for stroke removal. Honing or Lapping?
28. How hones classified?
29. Enlist various methods to improve surface appearance of metals.
30. Name the gears used for transmitting power between parallels shafts.
31. Name the various types of indexing heads.
32. Define straddle milling.
33. Define cutting speed applied to milling machines
34. In up milling operations, in which direction the cutter rotates with respect to the work is fed.
35. Can helical gears be cut on horizontal milling machines?
36. How are milling machines classified? Name any two types.

SHORT QUESTION (4 MARKS)

1. Suggest which type of grinding wheels are preferred for grinding
    a. Hard material.
    b. Smaller size of the work.
2. Name the materials (any two) of which a grinding wheel is made up of.
3. Enlist the various types of grinding wheels used on grinding machines.
4. Explain the term dressing as applied to grinding wheels.
5. Name a few fluids which are used as dielectric fluids in EDM processes.
6. Write a few applications of laser beam machining.
7. Describe the principle of electron beam machining.
8. Write down a few applications of powder metal spraying.
9. Name a few commonly used lapping vehicles.
10. Write short note on honing allowances.
11. Name the cutting tool used in milling machine. Also state the part of milling machine where it is mounted.
12. Name the two types of milling methods.
13. Name any four milling operations.
14. Explain balancing of grinding wheel. Why it is done.
15. Explain the working principle of milling machine with a neat sketch.
16. Explain the Principle of Buffing.
17. Explain with neat sketch the down milling.
18. Explain with neat sketch the Form milling.
19. Explain with neat sketch the principle of centre less grinder.
20. How can you specify grinding wheel?
21. Explain Dressing, Truing and Mounting of grinding wheel.
22. Explain the principle of EDM.
23. Give the two advantages and two limitations of ECM.
24. Explain the principle of powder process.
25. Give application of wire process.
26. Show with neat sketch the elements of surface roughness.
27. Explain with neat sketch the principle of lapping.
28. Sketch and describe a slot milling.
29. Why a coolant is used in grinding work?
30. Explain the principle of gear hobbing.

LONG QUESTION (10 MARKS)

1. Explain the construction and working of plain dividing head.
2. What is EDM? Explain its principle with the help of suitable diagram.
3. Write short notes on
    a. Polishing
    b. Buffing.
4. Explain with neat sketch construction and working of centreless Grinder.
5. Sketch and describe the following operations.
    a. Side Milling.
    b. Gear Milling.
6. Explain with neat sketches the following milling operations.
    a. Face milling.

b. Straddle milling.
c. Gang milling

7. Enlist various milling machine accessories and explain any two of them.
8. Draw various shapes of grinding wheels and describe where these are used.
9. Write short notes on
    a. Gear shaping.
    b. Ultrasonic machining its limitations and applications only.
10. Explain with neat sketch the following.
    a. Wire process of metal spraying.
    b. Super finishing process.