

- Q.24 Define work holding device with sketches?
- Q.25 Describe the two methods of milling machine.
- Q.26 Explain the effect of cutting parameters namely speed, feed and depth of cut on machining time.
- Q.27 Explain various job holding devices used on a milling machine.
- Q.28 Describe the working of a Universal Dividing Head.
- Q.29 Explain the principle of drilling?
- Q.30 Describe the spot facing and counter sinking operations performed on a drilling machine.
- Q.31 Classify the boring machines.
- Q.32 Explain working principle of shaper and slotter.
- Q.33 Enlist different types of planer alongwith their application.
- Q.34 Explain the difference between cutting fluid and lubricant.
- Q.35 Enlist common methods of lubrication of machine tools.

#### Section-D

- Note:** Long answer questions. Attempt any two question out of three Questions. (2x10=20)
- Q.36 Draw the geometry of single point cutting tools and write about its important parts in details.
- Q.37 Draw the block diagram of horizontal shaper and write about its important parts in details.
- Q.38 Write the functions and properties of a cutting fluid.

No. of Printed Pages : 4  
Roll No.....

202454/122454

### 5th Sem / Mechatronics Sub : Manufacturing Processes

Time : 3 Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple Choice Questions. All Questions are compulsory. (10x1=10)

- Q.1 Which of the following attachments can be used with centre lathe.  
a) Grinding                      b) Milling  
c) Copying                      d) All of the above
- Q.2 A process of enlarging a hole which is already in an object is known as:  
a) Boring                      b) Drilling  
c) Knurling                      d) Honing
- Q.3 Cutting tools remove the metal work piece in the form of \_\_\_\_\_.  
a) Blocks                      b) Chips  
c) Powder                      d) Option A & C
- Q.4 Milling cutter is a \_\_\_\_\_.  
a) Single point Cutting Tools  
b) Multi point Cutting Tool  
c) Single bit Cutting Tool  
d) None of the above
- Q.5 Gang milling is \_\_\_\_\_.

- a) Process of cutting gears
  - b) Process in which two more cutter are used simultaneously.
  - c) Milling process for generating hexagonal surface
  - d) None of the above
- Q.6 Counter sinking is also similar to \_\_\_\_\_, except that the additional machining being done on a hole is conical to accommodate the counter sunk machine screw head.
- a) Form turning                      b) Spinning
  - c) Counter boring                  d) Hole milling
- Q.7 Which machine is similar to a vertical axis milling machine with the table closer to the floor and built heavy, rigid and accurate construction.
- a) Lathe                                  b) Down Milling
  - c) Drilling                              d) Jig Boring
- Q.8 Reaming is a \_\_\_\_\_ operation done to provide close tolerance holes.
- a) Powdering                          b) Finishing
  - c) Polishing                            d) Grinding
- Q.9 Cutting fluid reduces the effect of \_\_\_\_\_ during cutting operation
- a) Temperature                      b) Heat
  - c) Current                              d) Climate conditions
- Q.10 Graphite is a type of \_\_\_\_\_ lubricant.
- a) Solid                                  b) Semi-solid
  - c) Liquid                                d) None of the above

### Section-B

**Note:** Objective/Completion type questions. All questions are compulsory. (10x1=10)

- Q.11 Turret lathe is \_\_\_\_\_ type lathe.
- Q.12 Angle plates, collets and mandrels are \_\_\_\_\_ of lathe.
- Q.13 Reaming is a \_\_\_\_\_ operation.
- Q.14 The clapper box in a shaper helps to perform the return stock. (True/False))
- Q.15 The \_\_\_\_\_ stroke in a shaper is called idle stroke.
- Q.16 The cutting tool used in a milling machine is known as \_\_\_\_\_.
- Q.17 Form milling operation is used to machine surfaces of irregular shapes. (True/False)
- Q.18 the planner is especially adopted to \_\_\_\_\_ work piece.
- Q.19 Coolant and lubricants \_\_\_\_\_ the tool life.
- Q.20 Cutting fluid is used to produce \_\_\_\_\_ and \_\_\_\_\_.

### Section-C

**Note:** Short answer type Question. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Enlist various types of single point cutting tools? Write down important uses of any three of them.
- Q.22 What do you understand by tool signature?
- Q.23 Explain the principle of turning?