

- Q.29 Differentiate between lathe and planer.
- Q.30 Name different drill holding devices and explain any two.
- Q.31 Explain taper turning. Describe any one method of taper turning.
- Q.32 List the various advantages of Quick return motion mechanism.
- Q.33 What is a cutting tool? Gives its utility.
- Q.34 Explain horizontal milling machine with a neat diagram.
- Q.35 Enlist the various type of cutting operations fo lathe machine.

#### Section-D

**Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)**

- Q.36 Explain the following in detail
- Indexing
  - cutting parameters n lathe.
- Q.37 Describe in detail the Nomenclature of twist drill with a neat diagram.
- Q.38 Explain about the selection of cutting fluid for different material and operations.

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**5thSem., Branch : Mechatronics  
Subject : 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 is used for machining smaller jobs?
- Shaper
  - Planer
  - Can't say anything
  - None of the mentioned
- Q.2 The drilling machine was primarily designed to originate a \_\_\_\_\_.
- Flat surface
  - Cylindrical surface
  - Taper surface
  - None of the mentioned
- Q.3 By increasing cutting speed amount of heat generated
- Increases
  - Decreases
  - Remains constant
  - Depends on the material of tool
- Q.4 Which machine tool is known as the mother machine tool?
- Drill
  - Milling
  - Lathe
  - None of mentioned

- Q.5 Which of the following method is adopted for fast boring?  
 a) Cylindrical augers    b) Percussion boring  
 c) Rotary boring        d) Wash boring
- Q.6 In which type of operation, motion of cutting tool is rotary as well as translating?  
 a) Planning              b) Milling  
 c) Drilling              d) Turning
- Q.7 Which type of feed is needed in facing operation?  
 a) Longitudinal  
 b) Cross  
 c) Both cross and longitudinal  
 d) None of the mentioned
- Q.8 In shaper the job is kept \_\_\_\_\_.  
 a) Stationary            b) Rotating  
 c) Reciprocating        d) None of the mentioned
- Q.9 Which of the following is an example of non-cutting shaping process?  
 a) Turning                b) Forging  
 c) Drilling              d) Milling
- Q.10 Which stroke is idle strike in shaper?  
 a) Forward              b) Return  
 c) Can't say anything   d) None of the mentioned

### Section-B

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

- Q.11 Lathe cannot produce internal features like holes.  
 (True/False)

- Q.12 The most common value of lip relief angle of a drill is \_\_\_\_\_.  
 Q.13 In lathe, bed ways are made of \_\_\_\_\_.  
 Q.14 The value of side rake angle varies from \_\_\_\_\_ degree.  
 Q.15 The jobs on shaper are held by \_\_\_\_\_ Vice.  
 Q.16 Coolants and lubricants \_\_\_\_\_ tool life.  
 Q.17 The head stock Center is called Dead center (True/False)  
 Q.18 Write the function of boring bar.  
 Q.19 High speed steel is also known as cobalt steel.  
 (True/False)  
 Q.20 A good lubricant should have \_\_\_\_\_ flash point.

### Section-C

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

- Q.21 Explain standard planer with the help of neat diagram.  
 Q.22 Explain briefly about working principle of a lathe machine with diagram.  
 Q.23 Differentiate between up-milling and down-milling.  
 Q.24 What is a boring bar? What are its various types? Explain.  
 Q.25 Write the advantages or disadvantages of shaper machine.  
 Q.26 Describe the main parts of planer machine.  
 Q.27 Define cutting fluids. Enlist its different types.  
 Q.28 Write a short note on Universal dividing head.