Q.26 What are the types of cutting fluids?

Q.27 Give classification of boring machines with brief description.

Q.28 Differentiate between shaping and planing.

Q.29 What are the different properties of an ideal lubricant?

Q.30 Give the principle and working of slotter.

Q.31 Explain how will you calculate speed, and feed for a shaping process?

Q.32 Describe the functions of centres and dogs in lathe.

Q.33 Draw a rough sketch of twist drill showing its nomenclature.

Q.34 What is spot facing process ? How it is carried out?

Q.35 How wick lubrication is done in machine tools ?

SECTION-D

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

Q.36 Describe the main parts of a column and knee type milling machine

Q.37 Explain how will you do selection of cutting fluids for different materials and operations ?

Q.38 Explain any four work holing device with diagrams.

No. of Printed Pages : 4 202454/122454
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5th Sem / Mechatronics
Subject:- Manufacturing Processes

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 The cutting fluid mostly used for machining alloy steel is

a) Water b) Dry
c) Soluble oil d) Sulphurised Mineral oil

Q.2 _____rake angles are made for ductile and tough materials

a) Zero b) Positive
c) negative d) Exponential

Q.3 Lathe is mainly used for producing __surfaces.

a) Flat b) Curve
c) Taper d) None of the mentioned

Q.4 Speed ratio is the ratio of speed of the ____to____

a) Driver, driven b) Driven, driver
c) Final speed in lathe d) None of the above

Q.5 Which milling process the cutting is done on the end of the cutter as well as periphery?

a) Plain milling b) Side milling
c) Face milling d) End milling

Q.6 The process of chamfering the entrance of a drilled hole is known as

a) Counter boring b) Counter sinking
c) Boring d) Reaming

Q.7 Part of twist drill which carries flutes and extends from dead centre up to the start of the neck is known as

a) Body b) Point
c) Lip d) Chisel edge

Q.8 Which of the following is used for machining larger jobs ?

a) Shaper
b) Planer
c) Can't say anything
d) none of the mentioned

Q.9 Which of the following is the most important property of the lubricant?

a) Density
b) Thermal conductivity
c) Viscosity
d) Melting point

Q.10 The taper turning attachment consists essentially of a frame which is attached to the ___end of the lathe bed .

a) Front b) Rear
c) both front and rear
d) none of the mentioned

SECTION-B

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

Q.11 The example of multi point cutting tool is _____

Q.12 Holes are usually enlarged by_____(reamer/boring tool /both)

Q.13 The main constituent of high speed steel is _____

Q.14 RAM is a part of _____machine.(Lathe/milling)

Q.15 Indexing is used for _____

Q.16 Pneumatic drill makes use of _____ for its operation

Q.17 The function of dogs in lathe is _____

Q.18 The function of knurling is to _____

Q.19 Two applications of milling are _____

Q.20 In a planer tool is _____ and work _____(reciprocates/stationary/rotates)

SECTION-C

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

Q.21 Classify and explain briefly lathes.

Q.22 Describe eccentric turning.

Q.23 What are the applications of milling ?

Q.24 Explain straddle milling with diagram.

Q.25 Differentiate between tapping and drilling?