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4th Sem / Auto, Mech, Prod, T&D, GE, CNC, CAD/CAM, Metallurgy, Found. & Forg., Adv. Manuf. Tech., Mech Engg (Fabrication Tech), Mech Engg (CAD/CAM Dsgn & Robotics)
Subject:- Workshop Technology - II

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The main constituent of high speed steel is _____ (CO3)

a) Tungsten c) Vanadium
b) Carbon d) Manganese

Q.2 Lathe bed is made of:- (CO1)

a) Mild Steel c) Cast Iron
b) Pig Iron d) Alloy Steel

Q.3 The power in thread cutting is transmitted by lead screw to the carriage by :- (CO1)

a) Worm and Worm Wheel
b) Rack and Pinion
c) Gear box
d) Half nut

Q.4 In which of the operation speed is minimum (CO1)

a) Knurling c) Parting off
b) Thread cutting d) Grooving

Q.5 Cutting edges of a standard twist drill are called:- (CO5)

a) Flutes c) Lips
b) Wedges d) Flanks

Q.6 Reaming operation is related to (CO5)

a) Finishing c) Threading
b) Drilling machine d) Counter Boring

Q.7 Boring Bar is made of (CO4)

a) Cast Iron c) Mild Steel
b) Pig Iron d) Wrought Iron

Q.8 The length of a pull broach as compared to push broach is (CO13)

a) Shorter c) larger
b) equal d) none of the above

Q.9 The fixture is a device that (CO11)

a) rotates the job and guides cutter
b) holds the tool
c) rotates the job
d) holds the job

Q.10 T Slots helps in (CO7)

a) Driving the job c) Moving the job
b) Clamping the job d) Sizing the job

SECTION-B

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

Q.11 The main function of cutting fluid is to_____ the heat generated during a machining operation. (CO12)

Q.12 Jigs and Fixtures are economical means to produce _____ type of work. (CO11)

Q.13 The tooling cost is_____ in broaching operation (CO13)

Q.14 The forward stroke is slower and return stroke is faster in shaper. State True of False (CO7)

Q.15 Facing head is mounted on_____ (CO4)

Q.16 Feed is the rate of _____ per revolution of drill (CO5)

Q.17 Diamond tools are used for_____ materials which are difficult to cut. (CO3)

Q.18 In Lathe machine, Chuck is used to_____ (CO1)

Q.19 Turret lathe is a _____ lathe (CO1)

Q.20 A mandrel is used for holding _____ work. (CO9)

SECTION-C

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

Q.21 Explain the tool geometry of a single point cutting tool with neat sketch. (CO3)

Q.22 Write the desirable properties of a cutting tool material (CO3)

Q.23 Explain briefly with neat sketch the following type of reamers:- (CO5)

i) Hand reamer ii) Taper reamer

Q.24 Define Boring. Explain its principle. (CO10)

Q.25 Explain how counter boring is performed on a drilling machine (CO10)

Q.26 Describe Jig Boring machine with neat sketch. (CO10)

Q.27 Describe knurling operation on a lathe machine. Why is it done. (CO1)

Q.28 Describe the specifications of a Lathe machine. (CO9)

Q.29 Explain the principle of shaping machine (CO7)

Q.30 Define cutting speed, feed and depth of cut of a planner machine (CO7)

Q.31 Draw and explain the elements of a broach tool (CO13)

Q.32 What are clamping devices? Explain different clamping devices. (CO11)

Q.33 Explain six point principle of location (CO11)

Q.34 Give difference between cutting fluid and lubricant (CO12)

Q.35 Explain various types of cutting fluids. (CO12)

SECTION-D

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

Q.36 Give the nomenclature of a twist drill and explain the main elements of twist drill with neat sketch (CO5)

Q.37 Define lathe as machine tool. Explain the principle of turning. Explain the various operations which can be performed on a lathe machine. (CO1)

Q.38 Explain the construction details and working of a radial drill machine with the help of neat sketch (CO4)