

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 What do you mean by heat treatment of steel? How does heat treatment effect the mechanical properties of steel? (CO1)
- Q.24 Explain the principle of centre less grinding. Write its advantages and limitations. (CO3)
- Q.25 Explain the principle and description of Abrasive Jet Machining. Also write its applications. (CO5)

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6th Sem./Branch : Automation & Robotics
Subject : Manufacturing Technologies & Applications

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Which property of a material refers to its resistance to permanent deformation under applied load? (CO1)
a) Hardness b) Toughness
b) Ductility c) Elasticity
- Q.2 Which type of cutting fluid is commonly used for aluminium machining? (CO1)
a) Mineral oil b) Synthetic coolant
c) Emulsion d) Straight oil
- Q.3 Which machining operation is used for creating holes in work pieces? (CO2)
a) Turning b) Milling
c) Drilling d) Grinding

- Q.4 In milling operations, the cutting tool rotates in which direction to remove material? (CO2)
- a) Radial b) Axial
 - c) Tangential d) Circumferential
- Q.5 In electroplating, the work piece act as: (CO5)
- a) Anode b) Cathode
 - c) Neutral d) None of the above
- Q.6 Which machine needs jet of high temperature ionized gas? (CO5)
- a) EBM b) LBM
 - c) EDM d) PAM

SECTION-B

- Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)
- Q.7 Name the main constituent of high speed steel. (CO1)
- Q.8 The cutting edges of a standard twist drill are called? (CO1)
- Q.9 Conventional milling is also known as _____.(CO2)
- Q.10 What is grinding wheel? (CO3)
- Q.11 Give description of G01. (CO4)
- Q.12 Expand CNC. (CO4)

(2)

212863C

SECTION-C

- Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)
- Q.13 Explain the physical properties of materials. (CO1)
- Q.14 What is cutting fluid? Write the functions of cutting fluids. (CO1)
- Q.15 Name various turning operations and their tools required. (CO2)
- Q.16 Write short note on gas welding technique. (CO3)
- Q.17 Explain types of tool and work holding devices of milling machine. (CO2)
- Q.18 Write short note on radial drill machine. (CO2)
- Q.19 Differentiate between resistance welding and arc welding. (CO4)
- Q.20 Explain the process of electroplating. Where it is used? (CO4)
- Q.21 What is an automatic tool changer? What are the types of automatic tool changer? (CO4)
- Q.22 What is Electric discharge machining? State its applications. (CO5)

(3)

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