

- Q.27 Write a short note on photo-lithography process.
- Q.28 Explain the process parameter used in the abrasive flow machining.
- Q.29 What is electronic device manufacturing process.
- Q.30 Write the five defects during welding.
- Q.31 Explain the principle of forming process.
- Q.32 What is the advantage and disadvantage of the IBM process.
- Q.33 What is Under water welding, explain its basic principle.
- Q.34 Give the detail of diffusion, write its basic working procedure.
- Q.35 What is the future possibilities of the unconventional manufacturing process.

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Explain Ultrasonic machining with its principle, working, application, advantage and disadvantage.
- Q.37 Write a short note on:-
- Plasma Arc Cutting
 - Limitation of conventional manufacturing process
- Q.38 What is electro discharge forming with its principle, working, advantage, disadvantage with diagram.

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3rd Sem / Mechatronics

Subject:- Non Conventional Manufacturing Processes / Manufacturing Processes I

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 The tool material for faster machining, should have.
- Wear resistance
 - Red hardness
 - Toughness
 - All of them
- Q.2 Which type of electrode is used for drilling in EDM.
- Flat
 - Cuboidal
 - Tubular
 - Spherical
- Q.3 The machining system of USM contain which of the following components.
- Magnetostrictor
 - Concentrator
 - Tools and Slurry
 - All of them
- Q.4 LBM offer a good solution for which material properties below.
- Thermal Conductivity
 - Specific Heat
 - Boiling Temp
 - All of above

- Q.5 Which of the following are the properties of a laser.
 a) Highly Collimated b) Monochromatic
 c) Chetrent light beam d) all of them
- Q.6 What is the temp. In the weld area plasma arc welding.
 a) 20000 c to 30000 c b) 30000 c to 35000 c
 c) 15000 c to 20000 c d) 35000 c to 40000 c
- Q.7 Which of the following metal forming process perform squeezing out of material through a hole.
 a) Forging b) Rolling
 c) Drawing d) Extrusion
- Q.8 Which of the following methods of forming is not the part of electromagnetic forming.
 a) Compression b) Expansion
 c) Shearing d) Counter forming
- Q.9 As the top rise, the rate of vacancy diffusion in metal.
 a) Increase
 b) Decrease
 c) Remain same
 d) May increase or decrease
- Q.10 Diffusion is not used in which of the following.
 a) Doping of Semiconductor
 b) Machining of Alloy
 c) Heat Treatment
 d) Catlysis

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SECTION-B

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

- Q.11 Define under water welding.
- Q.12 Expand EBM.
- Q.13 Write one application of the electro chemical machining.
- Q.14 Enlist two parameter of water jet machining.
- Q.15 Name of the parts used in plasma arc welding.
- Q.16 What is photo-lithography process.
- Q.17 Which chemical used in chemical welding.
- Q.18 Write two application of explosive welding.
- Q.19 Name any two conventional manufacturing process.
- Q.20 Expand EDF.

SECTION-C

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

- Q.21 What is unconventional manufacturing process, write its classification.
- Q.22 Explain Plasma arc welding with diagram.
- Q.23 What is explosive forming with its application.
- Q.24 Write the principle of chemical machining.
- Q.25 Why we need of the conventional manufacturing process.
- Q.26 Difference between abrasive jet machining and electron beam machining.

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