

- 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. $(2 \times 10 = 20)$

- 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.

No. of Printed Pages : 4
Roll No.

202432/122432/62432

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 $(10 \times 1 = 10)$

- 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

(2) 202432/122432/62432

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.

(3) 202432/122432/62432