Q.28 Describe the process parameters of WEDM.
Q.29 Give the brief classification of unconditional machining methods.
Q.30 Write the application of Abrasive Jet Machining.
Q.31 Describe the working principle of explosive welding.
Q.32 What is metallizing? Explain.
Q.33 Give brief description of cladding process.
Q.34 What are the disadvantages of Electro-chemical machining?
Q.35 Write short note on electro-magnetic forming.

SECTION-D

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

Q.36 Write the advantages, disadvantages and applications of non-conventional machining processes.
Q.37 Explain with the help of neat sketch, the construction and working of electric-discharge machining.
Q.38 What are the advantages and applications of un-conventional forming processes?

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3rd Sem / Mechtronics
Subject:- Non Conventional Manufacturing Process / Manufacturing Processes - I

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Which of the following is un-conventional machine process?
a) Turning b) shaping
c) USM d) milling

Q.2 Which dielectric is used in EDM?
a) Vegetable oil b) Kerosene oil
c) mobile oil d) Lard oil

Q.3 Non-conventional machining can also be called as_____.
a) Non-contact machining
b) Partial contact machining
c) contact machining
d) half contact machining

Q.4 In which of the following industries, non-conventional machining methods played an important role?
a) Aerospace b) Automobile
c) Medical d) All of the above

Q.5 Vacuum is required for machining a component in _____ method.

a) WJM b) LBM
c) EDM d) AJM

Q.6 Which of the following material cannot be machined by EDM?

a) Cast Iron b) Steel
c) Glass d) Titanium

Q.7 The material removal rate (MRR) in abrasive jet machining process is_____

a) Very High b) High
c) Low d) None of these

Q.8 In ECM, the material removal is due to_____.

a) Corrosion b) Erosion
c) Fusion d) Ion displacement

Q.9 In EBM, the workpiece is held in_____.

a) Vacuum b) water
c) electrolyte d) air

Q.10 In plasma arc welding, electrode is made of_____

a) tungsten b) copper
c) brass d) steel

SECTION-B

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

Q.11 Shaping metal parts in die by using an exmplosive charge to generate forming pressure is known as_____.

Q.12 Full form of LASER is_____

Q.13 Explosive forming is also known as_____.

Q.14 The elements used in USM to convert high frequency electrical impulses into mechanical vibration is known as_____.

Q.15 Underwater welding, is also known as_____.

Q.16 In mechanical machining, material is removed by_____.

Q.17 In LBM, workpiece is held in_____.

Q.18 An explosive, forming method in which explosive is directly placed on the workpiece surface called____.

Q.19 In laser beam machining process_____ is used to coverage laser beams.

Q.20 The MRR in ultra-Sonic machining increases with increase in _____.

SECTION-C

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

Q.21 What do you understand by Unconventional machining methods?

Q.22 Write short note on explosive forming.

Q.23 Write at least five advantages of LBM.

Q.24 Give the brief description of photo-lithography process.

Q.25 Describe the working of plasma arc cutting.

Q.26 Draw the nest sketch of EDM by labelling its various parts.

Q.27 What are the limitations of conventional manufacturing processes.