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| Q 1. What is the reason for using unconventional or advanced machining processes? | | | |
| a. Complex surfaces | b. High accuracy and surface finish | | |
| c. High strength alloys | d. All of the above | | |
| Correct answer: d |  | | |
| Q.2) Which of the following is not a media of energy transfer on which the advanced machining processes are classified? | | | |
| a. Reactive atmosphere | b. Electrons | | |
| c. Electrolyte | d. Chemical ablation | | |
| Correct answer:d | | | |
| Q.3) The spark gap in Electrical Discharge Machining (EDM) process is maintained such that | | | |
| a)the gap voltage is around 99% of supply voltage | b. the gap voltage is around 70% of supply voltage | | |
| c. the gap voltage is around 50% of supply voltage | d. the gap voltage is around 10% of supply voltage | | |
| Correct: answer b | | | |
| Q.4) Which of the following materials is/are used for Electrical Discharge Machining (EDM) process? | | | |
| a. Brass | | | b. Copper |
| c. Graphite | | | d. All of the above |
| Correct answer:d | | | |
| 5) In Electrical Discharge Machining (EDM) process the metal removal is carried out by | | | |
| a. electrolysis | | | b. melting and vaporisation |
| c. fracture of work material due to impact of grains | | | d. none of the above |
| Correct answer:b | | | |
| Q.6) Which of the following statements are true for Electro-Chemical Machining (ECM)?  1. ECM is capable of machining metals and alloys irrespective of their strength and hardness  2. No cutting forces are involved in ECM process  3. ECM process consumes very high power  4. Very small space is required to set up ECM process | | | |
| a. (1), (2) and (3) | | | b. (2), (3) and (4) |
| c. (1), (3) and (4) | | | d. (1), (2) and (4) |
| Correct answer:A | | | |
| Q.7) In which process the material is removed due to the action of abrasive grains? | | | |
| a. Electro-Chemical Grinding (ECG) | | | b. Ultrasonic Machining (USM) |
| c. Laser Beam Machining (LBM) | | | d. Electrical Discharge Machining (EDM) |
| Correct answer:b | | | |
| Q.8) Which of the following processes is generally applied for dentistry work like to drill fine holes of particular shape in teeth? | | | |
| a. Electrical Discharge Machining (EDM) | | | b. Electron Beam Machining (EBM) |
| c. Laser Beam Machining (LBM) | | | d. Ultrasonic Machining (USM) |
| Correct answer:d | | | |
| Q.9) The Laser Beam Machining process can be carried out, when the media for energy transfer between tool and workpiece is | | | |
| a. air | | | b. liquid |
| c. vacuum | | | d. any of the above medium |
| Correct answer:d | | | |
| Q.10) Which of the following process has highest rate of metal removal? | | | |
| a. Electric Discharge Machining (EDM) | | | b. Electro-Chemical Machining (ECM) |
| .c. Ultrasonic Machining (USM) | | | d. Laser Beam Machining (LBM) |
| Correct answer:b | | | |
| Q14. USM can be classified as the following type of non-traditional machining process | | | |
| a) electrical | | | b) optical |
| .c. mechanical | | | d chemical |
| Correct answer:c | | | |
| Q15. WJM cannot be used to machine | | | |
| (a) frozen food | | | (b) plywood |
| (c) leather | | | (d) steel plates |
| Correct answer:d | | | |
| Q16). In AWJM mixing process takes place in | | | |
| (a) intensifier | | | b) catcher |
| (c) mixing chamber | | | d) orifice |
| Correct answer:c | | | |
| Q17)Abrasive water jet velocity increases with (keeping all other parameters unchanged | | | |
| (a) increasing traverse velocity of the job | | | b) decreasing mass flow rate of abrasive |
| (c) decreasing traverse velocity of the job | | | d) increasing mass flow rate of abrasive |
| Correct answer:b | | | |
| Q18). In an environment friendly development concerning AWJM, the following is used as abrasive | | | |
| (a) dry ice | | | (b) cubic boron nitrite |
| c) diamond | | | (d) tungsten carbide |
| Correct answer:a | | | |
| Q 19. Which of the following process is used for preparing parts having large curved surfaces and thin sections? | | | |
| a) Hot machining | | | b) Ultrasonic machining |
| c) ECM process | | | d) Chemical milling |
| Correct answer: d | | | |
| Q 20. The tool life is affected by | | | |
| a) Depth of cut | | | b) Cutting speed |
| c) Feed | | | d) ) All of these |
| Correct answer:d | | | |
| Q 21)**Which the following is true for Electrical Discharge machining (EDM)?**   1. The metal removal takes place due to erosion 2. Any electrical conductor can be machined by this method. 3. Some light oil like transformer oil or kerosene oil is used as dielectric. 4. Only i 5. i &ii 6. i,ii & iii 7. ii & iii | | | |
| a) Only i | | b) i &ii | |
| c) i,ii & ii | | d) ii & iii | |
| Correct answer:c | |  | |
| **Q22).In Electrical discharge machining (EDM), the spark gap is kept between \_\_\_mm to\_\_\_mm.** | | | |
| a)5 to 5 | | b)05, 0.5 | |
| c)005, 0.05 | | d)0005, 0.005 | |
| Correct answer:c | |  | |
| **Q.23)In Electrical discharge machining, the temperature developed is of the order of** | | | |
| 1. 2,000°C | | 1. 6,000°C | |
| 1. 10,000°C | | 1. 14,000°C | |
| Correct answer:c | |  | |
| **Q.24) Which of the following is not true in case of Electrical discharge machining (EDM)?** | | | |
| 1. Erosion takes place both on Work piece and the tool. | | 1. Gap between tool and work piece is controlled by servo mechanism. | |
| 1. The electrode (tool) is made of graphite or copper. | | 1. The size of impression on work piece is exactly the same as that on electrode (tool). | |
| Correct answer:d | | | |
| **Q.25) The Electrical Discharge machining (EDM) process is** | | | |
| 1. Burr free | | 1. Not for hard metals | |
| 1. Direct contact machining | | 1. Capable of producing sharp corners | |
| Correct answer:a | | | |
| Q 26 **The cathode filament is heated to a temperature of \_\_\_\_\_\_ in case of Electron beam machining** | | | |
| a) 1200°C | b) 1700°C | | |
| c) 2000°C | d) 2500°C | | |
| Correct answer:d |  | | |
| Q 27 **The vacuum in case of Electron Beam machining is of the order of** | | | |
| a) 10-2mm of mercury | b) 10-5mm of mercury | | |
| c) 10-7mm of mercury | d) 10-9mm of mercury | | |
| Correct answer:b |  | | |
| Q 28 In Electron beam machining, as the electrons strikes the work piece | | | |
| a) Their kinetic energy is converted into heat | b) They get scattered | | |
| c) Mechanical erosion in work piece takes place | d) Electro-chemical etching takes place | | |
| Correct answer:a |  | | |
| Q 29. In Electron beam machining, workpiece is held in | | | |
| a) vacuum chamber | b) dielectric medium | | |
| c) electrolyte | d) none of these | | |
| Correct answer:a |  | | |
| Q 29. In Electron beam machining, workpiece is held in | | | |
| a) vacuum chamber | b) dielectric medium | | |
| c) electrolyte | d) none of these | | |
| Correct answer:a |  | | |
| **Q.31) Plasma is a mixture of**   1. free electrons 2. positively charged ions 3. neutral atoms | | | |
| 1. i & ii | 1. ii & iii | | |
| 1. i & iii | 1. i, ii & iii | | |
| Correct answer:d |  | | |
| **Q.32) The metal is removed in Plasma arc machining due to** | | | |
| 1. erosion | 1. chemical reaction | | |
| 1. melting of metal | 1. grinding | | |
| Correct answer:b |  | | |
| Q.33) **In Plasma arc welding the electrode is made of** | | | |
| 1. tungsten | 1. copper | | |
| 1. bass | 1. steel | | |
| Correct answer:a |  | | |
| Q.34) **In plasma arc welding, the maximum temperature is of the order of** | | | |
| a18000°C | B 20000°C | | |
| C 28000°C | D 35000°C | | |
| Correct answer: c |  | | |
| Q.35) **Which of the following method is used for profile cutting of flat plates?** | | | |
| 1. Electron beam machining | 1. Laser beam machining | | |
| 1. Plasma arc machining | 1. Electro-chemical machining | | |
| Correct answer:c | | | |
| Q36) **The process utilizing mainly thermal energy for removing material is** | | | |
| 1. Ultrasonic Machining | 1. Electrochemical Machining | | |
| 1. Abrasive Jet Machining | 1. Laser Beam Machining | | |
| Correct answer:d | | | |
| **Q37) Which of the following is used as gas laser in Laser beam machining?**   1. **Helium-neon** 2. **Agron** 3. **CO2** | | | |
| 1. i only | 1. i & ii | | |
| 1. ii & iii | 1. All of these | | |
| Correct answer:d | | | |
| Q38) **Which of the following methods is used for trimming of sheet metal and plastic parts?** | | | |
| 1. Ultrasonic Machining | 1. Electrochemical Machining | | |
| 1. Abrasive Jet Machining | 1. Laser Beam Machining | | |
| Correct answer:d | | | |
| **Q39) In which of the following methods, an electrolyte is used?** | | | |
| 1. Ultrasonic Machining | 1. Electrochemical Machining | | |
| 1. Abrasive Jet Machining | 1. Laser Beam Machining | | |
| Correct answer:b | | | |
| **Q40) Which of the following is not true for Laser beam machining?** | | | |
| 1. The laser used can be of solid or gaseous type | 1. It is a thermal cutting type process | | |
| 1. The light radiated from flash lamp is directly focused on workpiece | 1. Any material can be machined irrespective of its physical and mechanical properties. | | |
| Correct answer:c | | | |
| **Q41) In electrochemical machining (ECM) removal of metal from the work piece takes place** | | | |
| 1. anodic dissolution | 1. abrasive action | | |
| 1. thermal melting | 1. erosion | | |
| Correct answer:a | | | |
| **Q42) Which of the following process is based on Faradays law of Electrolysis?** | | | |
| 1. Electron beam Machining | 1. Laser Beam Machining | | |
| 1. Electrical discharge Machining | 1. Electrochemical Machining | | |
| Correct answer:d | | | |
| **Q43) In Electrochemical machining the gap maintained between tool and workpiece is of the order of** | | | |
| 1. 0.05mm | 1. 0.1mm | | |
| 1. 0.5mm | 1. 1mm | | |
| Correct answer:c | | | |

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| **Q44) In electrochemical machining** | |
| 1. both tool and workpiece are stationary | 1. both tool and workpiece move |
| 1. tool is stationary and workpiece moves | 1. tool moves and workpiece is stationary |
| Correct answer:d | |
| **Q45) Machining of complicated shapes like jet engine blades and turbine blades is done by** | |
| 1. Plasma arc machining | 1. Electrical discharge Machining |
| 1. Laser Beam Machining | 1. Electrochemical Machining |
| Correct answer:d | |
| **Q46) In which of the following, an electrochemical oxidation on the work surface takes place** | |
| 1. Electrochemical grinding | 1. Electrical discharge Machining |
| 1. Electrochemical Machining | 1. Ultrasonic Machining |
| Correct answer:a | |
| **Q47)Tools and carbide tips are sharpened by** | |
| 1. Electrical discharge Machining | 1. Electrochemical grinding |
| 1. Electrochemical Machining | 1. Ultrasonic Machining |
| Correct answer:c | |
| **Q48) The vibrating frequency used for the tool in Ultrasonic machining is of the order of** | |
| 1. 10,000 oscillations per second | 1. 20,000 oscillations per second |
| 1. 35,000 oscillations per second | 1. 45,000 oscillations per second |
| Correct answer:b | |
| **Q49)In Ultrasonic machining, the material is removed by** | |
| 1. anodic dissolution | 1. thermal melting |
| 1. abrasive action | 1. electrochemical oxidation |
| Correct answer:c | |

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| **Q50) In Ultrasonic machining, the function of transducer is to** | |
| 1. convert mechanical energy into heat | B convert electrical energy into heat |
| C convert electrical energy into mechanical vibrations | D convert mechanical energy into electrical energy |
| Correct answer:c | |
| **Q51) In Ultrasonic machining, the tool moves** | |
| 1. moves in transverse direction | B moves in longitudinal direction |
| C vibrates in transverse direction | D vibrates in longitudinal direction |
| Correct answer:d | |
| **Q52) In which of the following processes, the shape of tool is not same as that of cavity produced?** | |
| 1. Ultrasonic Machinig | 1. Electrical discharge Machining |
| 1. Electrochemical Machining | 1. Plasma arc machining |
| Correct answer:d | |
| **Q53) In which of the following processes, a nozzle is used?**   1. Plasma arc machining 2. Ultrasonic Machining 3. iii. Abrasive jet machining | |
| 1. i & ii | 1. ii & iii |
| 1. i & iii | 1. i, ii & iii |
| Correct answer:c | |
| **Q54) In which of the following gases is not used in**Abrasive jet machining? | |
| 1. Air | 1. Nitrogen |
| 1. Carbon di-oxide | 1. Argon |
| Correct answer:d | |
| **Q55) Laser is produced by** | |
| a) graphite | b) ruby |
| 1. diamond | d) emerald |
| Correct answer:b | |
| **Q56) A connecting rod is made by** | |
| a) casting | b) drawing |
| c) forging | (d) extrusion |
| Correct answer:c | |
| **Q57) Preheating before welding is done to** | |
| (a) make the steel softer | b) burn away oil, grease, etc, from the plate surface |
| c) prevent plate distortion | (d) prevent cold cracks |
| Correct answer :d | |
| Q58) **In Electro- Discharge Machining (EDM), the tool is made of** | |
| (a) Copper | (b) High speed steel |
| (c) Cast iron | (d) Plain carbon steel |
| Correct answer:a | |
| **Q59) In electro chemical machining (ECM) the material removal is due to** | |
| a) corrosion | b) erosion |
| c) fusion | d) ion displacement |
| Correct answer:d | |
| Q60) **Tool life of the cutting tool is most affected by** | |
| (a) Cutting speed | b) Tool geometry |
| c) Cutting feed and depth | (d) Microstructure of material being cut |
| Correct answer:a | |