1. Which of the following is not used in electromagnetic forming process?  
a) A capacitor bank  
b) A forming coil  
c) A foeld shaper  
d) Stiffening ribs  
View Answer

2. Which of the following is true about EMF process?  
a) Intense electric field is produced using capacitors and coils  
b) Heavy current is made to flow through the workpiece  
c) Intense magnetic field is produced for few microseconds  
d) Principle of electromagnetic induction is used to pre-heat the workpiece  
View Answer

3. In EMF process, eddy currents are induced in a conductive workpiece.  
a) True  
b) False  
View Answer

4. In EMF process, forming pulse rate is kept as high as possible  
a) True  
b) False  
View Answer

5. For EMF process, resistivity of the workpiece material should be \_\_\_\_\_\_\_\_\_\_\_\_\_  
a) greater than 10 micro-ohm-cm  
b) less than 8 micro-ohm-cm  
c) less than 15 micro-ohm-cm  
d) in the range 10-20 micro-ohm-cm  
View Answer

6. Which of the following is not true about EMF?  
a) Leaves tool marks  
b) Does not require lubrication  
c) Does not require any cleanup  
d) It is primarily applied in the forming of good conducting materials  
View Answer

7. Springback effect of the workpiece material is eliminated in EMF process.  
a) True  
b) False  
View Answer

8. The maximum pressure applied by the compression coil is approximately \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) 300 MPa  
b) 340 MPa  
c) 375 MPa  
d) 400 MPa  
View Answer

9. Electromagnetic forming is rarely used to form tubular shapes.  
a) True  
b) False  
View Answer

10. The die used in electromagnetic process should be made of material with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
a) high electrical conductivity  
b) low electical conductivity  
c) low ductility  
d) high creep resistance  
View Answer

11. The EMF process allows increased ductility for\_\_\_\_\_\_\_\_\_\_\_\_\_\_ alloys.  
a) Chromium – molybdenum  
b) aluminium  
c) nickel  
d) chromium – mangnese  
View Answer

12. Tooling for EMF process is relatively inexpensive.  
a) True  
b) False  
View Answer

13. EMF is primarily used for which of the following material?  
a) Silver  
b) High carbon steel  
c) Chromium alloys  
d) Martensitic steel  
View Answer

11. In which forging process cross section of a bar is reduced or shaped by passing it through a pair of rolls with shaped grooves?  
a) Skew rolling  
b) Roll forging  
c) Press forging  
d) Upsetting  
View Answer

12. In which of the following process a hardened punch is pressed into the surface of a block metal?  
a) Upset  
b) Press  
c) Hubbing  
d) Swaging  
View Answer

13. Which of the following statement is not correct about coining process?  
a) It is a closed die forging process  
b) It is used in minting of coin, jewellery etc  
c) Lubrication is not used  
d) All of the mentioned  
View Answer

14. In which of the following process radial movement of shaped died occur?  
a) Upset  
b) Press  
c) Hubbing  
d) Swaging  
View Answer

15. In which process surface is intended with a punch in order to produce a cavity or an impression?  
a) Heading  
b) Hubbing  
c) Piercing  
d) Swaging  
View Answer

16. Which defect occurs in drop forging due to incorrectly aligned dies?  
a) Miss match  
b) Misrun  
c) Swell  
d) Cold shut  
View Answer

17. If scales are not removed from dies, then which of the following defects occur?  
a) Miss match  
b) Scale pits  
c) Swell  
d) Cold shut  
View Answer

18. Which of the following defects results due to improper forging?  
a) Seams  
b) Cracks  
c) Laps  
d) All of the Mentioned  
View Answer

19. To remove the scales after forging operation which of the following cleaning operation is done?  
a) Pickling in acid  
b) Shot peening  
c) Pickling in acid & Shot peening  
d) Smith forging  
View Answer

20. Edging and fullering operations are not used in which of the following operation?  
a) Drop forging  
b) Smith forging  
c) Coining  
d) Press forging  
View Answer

21,22. Match the pair

|  |  |
| --- | --- |
| Advanced Manufacturing Process | Process characteristics/ applications |
| 1. Electromagnetic forming | 1. Only female die is needed |
| 1. Flow forming | 1. Magnetic pulse forming |
| 1. Electro hydro forming | 1. Vacuum in the die is prerequisite |
| 1. Roll forming | 1. Capacitor bank |
| 1. Shear spinning | 1. Pivoted pointer |
| 1. High energy rate forming | 1. Roller with automated controlled movements |
| 1. Explosive forming | 1. Hemispherical, hemi ellipsoidal profile forming |
| 1. Spinning | 1. Flower design |

State true or false

23. Rolling, forging, drawing, extrusion are bulk deformation process wherein the work

formed has a low surface area to volume ratio.

24.Hydroforming is generally referred to manufacturing of hollow sections such as

tubes and not applicable to from the planer surface such as angles, channels and

sheets.

25.High Energy Rate Forming (HERF) process is not suitable for form titanium and

tungsten alloy under high strain rates.

26.Flow stress is critical parameter in metal forming process as it specifies the force and

power requirements for the machinery to perform the process.