SNS COLLEGE OF TECHNOLOGY
(An Autonomous Institution)
COIMBATORE-35
DEPARTMENT OF MECHANICAL ENGINEERING

Academic Year 2024-2025 (ODD)
Seventh Semester
(Common to all branches)
19MEO304-3D PRINTING

PUZZLES

1. What is 3D printing?
a) Creating two-dimensional designs
b) Adding layers to create three-dimensional objects
c) Printing text documents on paper
d) Printing holographic images

Answer: b) Adding layers to create three-dimensional objects

2. Which technology is commonly used in 3D printing?
a) Laser cutting
b) Injection molding
c) Additive manufacturing
d) CNC machining

Answer: c) Additive manufacturing

3. What is the main advantage of 3D printing over traditional manufacturing methods?
a) Lower cost
b) Faster production speed
c) Ability to create complex geometries
d) More durable materials

Answer: c) Ability to create complex geometries

4. Which software is commonly used to create digital models for 3D printing?
a) AutoCAD
b) Photoshop
c) SolidWorks
d) Microsoft Excel

Answer: c) SolidWorks

5. Which material is commonly used in consumer-grade 3D printers?
a) Metal
b) Glass
c) Plastic
d) Rubber

Answer: c) Plastic

6. What is the term for the digital file that contains the instructions for a 3D printer?
a) Blueprint

b) Template
c) Code
d) G-code

Answer: d) G-code

7. Which industry has been greatly influenced by 3D printing technology?
a) Automotive
b) Banking
c) Agriculture
d) Hospitality

Answer: a) Automotive

8. What is the process called when a 3D printer creates an object layer by layer?
a) Sintering
b) Extrusion
c) Curing
d) Fusing

Answer: b) Extrusion

9. Which additive manufacturing method uses a laser to solidify powdered materials?
a) Fused deposition modeling (FDM)
b) Stereolithography (SLA)
c) Selective laser sintering (SLS)
d) Digital light processing (DLP)

Answer: c) Selective laser sintering (SLS)

10. What is the term for the supportive structure that holds up overhanging parts during the 3D printing process?
a) Scaffold
b) Support material
c) Filament
d) Infill

Answer: b) Support material

11. Which industry has been utilizing 3D printing to create custom prosthetic limbs?
a) Healthcare
b) Retail
c) Construction
d) Energy

Answer: a) Healthcare

12. Which material is commonly used in industrial-grade 3D printers for metal printing?
a) PLA
b) ABS
c) Titanium
d) Nylon

Answer: c) Titanium

13. What is the term for the process of smoothing the surface of a 3D-printed object?
a) Finishing
b) Polishing
c) Sanding
d) Post-processing

Answer: d) Post-processing

14. Which 3D printing method is most suitable for creating highly detailed objects with smooth surfaces?
a) Fused deposition modeling (FDM)
b) Stereolithography (SLA)
c) Selective laser sintering (SLS)
d) Digital light processing (DLP)

Answer : b) Stereolithography (SLA)

15. What is the term for the resolution or layer thickness of a 3D-printed object?
a) Fidelity
b) Tolerance
c) Resolution
d) Accuracy

Answer: c) Resolution

16. Which industry has utilized 3D printing for rapid prototyping of new product designs?
a) Fashion
b) Entertainment
c) Food and beverage
d) Manufacturing

Answer: d) Manufacturing

17. Which factor determines the printing speed in 3D printing?
a) Layer thickness
b) Material viscosity
c) Print bed temperature
d) Printer model and settings

Answer: d) Printer model and settings

18. What is the term for the process of combining multiple 3D-printed parts into a single assembly?
a) Integration
b) Assembly
c) Fusion
d) Merging

Answer: b) Assembly

19. Which industry has been exploring 3D-printed construction for building houses?
a) Architecture
b) Aerospace
c) Retail
d) Tourism

Answer: a) Architecture

20. What is the term for the failure that occurs when a 3D-printed object warps or deforms during the printing process?
a) Delamination
b) Warping
c) Distortion
d) Shrinkage

Answer: b) Warping

21. Which 3D printing method uses a liquid resin cured by a light source to create solid objects?
a) Fused deposition modeling (FDM)

b) Stereolithography (SLA)
c) Selective laser sintering (SLS)
d) Digital light processing (DLP)

Answer: b) Stereolithography (SLA)

22. Which industry has utilized 3D printing to create intricate jewelry designs?
a) Agriculture
b) Mining
c) Retail
d) Education

Answer: c) Retail

23. What is the term for the process of removing support material from a 3D-printed object?
a) Dissolving
b) Sanding
c) Trimming
d) Cleaning

Answer: c) Trimming

24. Which material is commonly used in 3D printing for dental applications?
a) Gold
b) Silver
c) Ceramic
d) Resin

Answer: c) Ceramic

25. Which 3D printing method uses a powder bed and a high-power laser to selectively melt and fuse powdered materials?
a) Fused deposition modeling (FDM)
b) Stereolithography (SLA)
c) Selective laser sintering (SLS)
d) Digital light processing (DLP)

Answer: c) Selective laser sintering (SLS)

26. Which industry has utilized 3D printing to create customized eyewear frames?
a) Fashion
b) Energy
c) Hospitality
d) Telecommunications

Answer: a) Fashion

27. What is the term for the process of 3D printing using multiple materials or colors in a single print job?
a) Multi-color printing
b) Dual extrusion
c) Multi-material printing
d) Color mixing

Answer: c) Multi-material printing

28. Which material is commonly used in 3D printing for flexible and rubber-like objects?
a) PLA
b) ABS
c) TPU
d) PETG

Answer: c) TPU

29. What is the term for the process of heating and melting a thermoplastic material for extrusion in 3D printing?
a) Curing
b) Sintering
c) Melting
d) Fusion

Answer: d) Fusion

30. Which industry has utilized 3D printing to create customized and patient-specific medical implants?
a) Healthcare
b) Transportation
c) Entertainment
d) Agriculture

Answer: a) Healthca