

DIPLOMA STUDY ROOM

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3-D Printing Objective

Q₁. Which of the following is not Liquid-based RP based?

- a) Stereolithography Apparatus (SLA)
- ☒ b) Laminated Object Manufacturing (LOM)
- c) Solid Ground Curing (SGC)
- d) Solid Object Ultra-Violet Laser printer (SOLUP)

Q₂. Solid Ground Curing (SGC) is developed by _____

- a) 3d System
- b) Sony
- c) CMC
- ☒ d) Cubital

Q₃. Full form of FDM is _____

- a) Fixed Development Modelling
- b) Fusion Development Modelling
- ☒ c) Fused Deposition Modelling
- d) Focused Deposition Modelling

Q₄. Full form of MJM is _____

- a) Multi Joint Modelling.
- b) Multi Jet Modelling.
- ☒ c) Multi Jet Moulding.
- d) Mitred Jet Modelling.

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Q5 Which of the following is not Solid-based RP system?

- a) Laminated Object Manufacturing (LOM)
- b) Paper Lamination Technology (PLT)
- ☒ c) Electron Beam Melting (EBM)
- d) Fused Deposition Modeling (FDM)

Q6 Laminated Object Manufacturing (LOM) is developed by _____.

- a) Stratasy
- b) CAM-1SM
- c) Kira-Corporation
- ☒ d) Cubic Technologies

Q7 Full form of LENS is _____.

- a) Lamination Electron Net Sintering.
- b) Laminated Engineered Net Shaping.
- ☒ c) Laser Engineered Net Shaping.
- d) Laser Engineered Net Sintering.

Q8 Which of the following is not Powder-Based RP system?

- a) Selective Laser Sintering (SLS)
- ☒ b) Solid Object UV-Laser Printer (SOUP)
- c) Electron Beam Melting (EBM)
- d) Direct Metal Deposition (DMD)

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Q9. Electron Beam Melting (EBM) is developed by _____.

- ☒ a) Acrony
- b) 3D Systems
- c) Z Corporation
- d) Optomec.

Q10. Which of the following RP system is not developed by 3d system?

- a) Selective Laser Sintering (SLS)
- b) Multi-Jet Modeling System (MJM).
- ☒ c) Paper Lamination Technology (PLT).
- d) Stereolithography Apparatus (SLA)

Q11. Which of the following is used as base material in Stereolithography (SLA) process?

- a) Thermoplastics - Metal Powders
- b) Thermoplastics, Eutectic Metals
- ☒ c) Photopolymer
- d) Titanium alloys.

Q12. Which of following is used as base material in Electron Beam Melting (EBM) process?

- ☒ a) Titanium alloy
- b) Photopolymer
- c) Various Materials
- d) Paper.

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Q13. Which of the following is used as base material in Selective Laser Sintering (SLS)?

- a) Photopolymer.
- ☒ b) Thermoplastics, Metal Powder
- c) Titanium alloys
- d) Various Materials

Q14. Which of following advantage does not possess by rapid prototyping process over the traditional prototyping?

- a) It consumes less time
- b) Gives better quality
- c) Reduces product launch time
- ☒ d) It's cheaper

Q15. In STL Files Euler's rule for solid's can be written as.

- a) No. of faces - No. of edges + No. of Vertices = $3 \times$ No. of body.
- b) No. of faces - No. of edges + No. of Vertices = No. of bodies.
- ☒ c) No. of faces - No. of edges + No. of Vertices = $2 \times$ No. of body.
- d) No. of faces - No. of edges + No. of Vertices = $4 \times$ No. of body

Q16. All triangle coordinates within an STL file must be—

- a) negative
- ☒ b) Positive
- c) Zero
- d) Synthetic

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Q17. Which of the following is the process in the RP cycle?

- a) Post Processing
- b) Transfer to Machine
- c) Pre-Processing
- ☒ d) All of the above

Q18. What is the other name of Multi Jet Modeling?

- a) FDM
- ☒ b) Poly Jet
- c) 3D Printer
- d) Extrusion

Q19. What which of the following is one of the design process steps?

- a) build
- ☒ b) Concept
- c) Pre-processing
- d) Transfer to Machine

Q20. Which Cad Software can not be used to create data for the prototyping machine?

- a) CREO
- b) CATIA
- c) NX Unigraphics
- ☒ d) Adobe Illustrator

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Q21 Which one of the process is subtractive prototyping?

- ☒ a) 5-axis CNC Milling
- b) Fused Deposition Modeling
- c) Multi-Jet Modeling
- d) Stereolithography Apparatus

Q22 Which of the following is the process of pre-processing stage?

- a) Remove Support
- ☒ b) Checking 3D CAD data
- c) De-powdering loose material
- d) Dip in a binder to strengthen the part

Q23 A computer model of a part design on a CAD system is called which of the following?

- a) Computer Prototype
- b) Geometric Prototype
- c) Solid Prototype
- ☒ d) Virtual Prototype.

Q24 In RPT Format, facet model are more efficiently represented.

- ☒ a) Redundancy is reduced
- b) Redundancy is increased
- c) Redundancy is zero
- d) Redundancy is infinite

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Q25 Rensselaer Design Research Center has developed which of the following format?

- a) Computerized Tomography
- b) Stereolithography Contour
- c) Common Layer Interface
- ☒ d) Rapid Prototyping Interface

Q26 3D reserved section of an STL file consists of how many bytes?

- ☒ a) 256
- b) 512
- c) 1024
- d) 2048

Q27 STL File converts curved surface into _____?

- ☒ a) Polygon
- b) Lines
- c) Surface
- d) None of above

Q28 STL File Problems _____?

- a) GAPS
- b) Degenerate Facets
- c) Overlapping Facets
- ☒ d) All of the above.

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Q29 Slicing a part is easier in _____?

- a) B-ref Method.
- b) CMM Method
- ☒ c) STL Method
- d) PRT Method

Q30 The STL file translate the part geometry from a CAD system to _____.

- a) CNC Machine
- b) CAPP Machine
- c) CSM Machine
- ☒ d) R.P Machine

Q31 Supports structures are required for _____.

- ☒ a) Overhanging portions
- b) Thin portions
- c) Thick portions
- d) All of the above

Q32 Process of converting STL file model into layers is called _____ in RP.

- a) Chopping
- ☒ b) Slicing
- c) Cutting
- d) Trimming

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Q33. For rapid prototyping 3D CAD model should be converted into _____ file.

- a) STL
- b) SLA
- ☒ c) STL
- d) SLG

Q34. Which of the following can not be input of CAD Solid model?

- a) Physical Mockup
- b) 2D Surface data
- ☒ c) Tooling
- d) 3D CAD DATA

Q35. Choose the correct sequence to generate prototype.

- ☒ a) 3D CAD data → CAD Solid Model → STL File → RP prototype
- b) CAD Solid Model → 3D CAD data → RP Prototype → STL File
- c) STL File → 3D CAD data → CAD Solid Model → RP prototype
- d) None of these

Q36. Which of the following process is not formative process?

- a) Bending
- b) Plastic Injection molding
- ☒ c) Selective laser sintering
- d) Forging

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Q37 Which of the following is not subtractive process?

- a) Milling
- ☒ b) Stereolithography
- c) Sawing
- d) EDM

Q38. Input of RP data is _____.

- a) CAM data
- b) CAPP data
- ☒ c) CAD data
- d) All of the above

Q39. From following, the alternative name of RP is _____.

- a) Additive Manufacturing
- b) Layer Manufacturing
- c) Direct CAD Manufacturing
- ☒ d) All of the above

Q40 Which of the following RP Technologies uses molten material as the starting material?

- a) 3-Dimensional Printing
- b) Fused Deposition Modeling
- ☒ c) Stereolithography
- d) Selective Laser Sintering.