

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain various 3D Modeling tools used in AutoCAD? (CO2)

Q.24 Explain various inspection and testing methods for determining product quality (CO5)

Q.25 Write a short note on any two questions given below:

a) Explain various design considerations used in 3D printing techniques. (CO4)

b) Compare Additive Manufacturing Vs Conventional Manufacturing (CO3)

c) Discuss various applications of Auto CAD (CO1)

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Roll No.

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3rd Sem / Branch : Automation & Robotics

Subject:- AutoCAD and 3D Printing

Time : 3Hrs.

M.M. :60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 A polyline can be broken into individual lines and arcs using which of the following command? (CO1)

- a) BREAK b) TRIM
c) EXPLODE d) OVERKILL

Q.2 Identify the types of destructive testing_____ (CO5)

- a) Radiographic test b) Dye penetrant test
c) Creep test d) Visual testing

Q.3 Shortcut for Trim command is (CO2)

- a) T b) TR
c) TI d) X

Q.4 Which coordinate option can be used to reset the orientation of UCS to its default? (CO1)

- a) UCS, World b) UCS, Named UCS
c) UCS, Previous d) UCS Icon, Properties

Q.5 The function of a polar array is to create object
(CO2)

- a) In a grid pattern b) In a circular pattern
- c) In a straight line d) All of the above

Q.6 What are the basic characteristics of 3D Printing?
(CO4)

- a) 3D objects are made in layers, it is an additive process
- b) 3D objects are created using a subtractive process
- c) 3D objects print from the computer
- d) 3D objects are downloaded and printed from the internet

SECTION-B

Note: Objective type questions. All questions are compulsory. (6x1=6)

- Q.7 Define WCS co-ordinate system. (CO1)
- Q.8 Name any file format used for 3D Printing. (CO2)
- Q.9 Name few materials used for 3D Printing (CO3)
- Q.10 Define VAT photo polymerization (CO4)
- Q.11 What is NDT in testing. (CO5)
- Q.12 What is fillet command use. (CO1)

SECTION-C

Note: Short answer type questions. Attempt any Eight questions out of ten questions. (8x4=32)

- Q.13 Compare Isometric and orthographic views. (CO2)
- Q.14 Explain STL file format and problems with STL file format. (CO2)
- Q.15 Explain basic editing commands used in autocad. (CO1)
- Q.16 Write a short note rectangular and polar array commands. (CO1)
- Q.17 Explain concept of 3D printing and its applications (CO3)
- Q.18 Explain in brief concept of additive manufacturing. (CO3)
- Q.19 Explain in brief shrinkage and warping defect with its causes (CO5)
- Q.20 Write a short note on heat treatment equipments. (CO5)
- Q.21 Explain benefits and limitation of material extrusion. (CO4)
- Q.22 Write a short note on material jetting. (CO4)