Q.19 Explain in brief shrinkage and warping defect with its causes (CO5)

Q.20 Write a short note on Wire cut EDM (CO5)

Q.21 Explain in brief powder bed fusion (CO4)

Q.22 Write a short note on VAT Photo polymerization (CO4)

SECTION-D

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

Q.23 Explain stereo lithography and problems in STL files (CO2)

Q.24 Explain various kinds of defects found in inspection and testing methods (CO5)

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

a) Explain various benefits and limitations of material extrusion (CO4)

b) Write a short note on 3d printing software and 3d simulation (CO3)

c) Discuss rectangular and polar array with neat sketch (Co1)

3rd Sem. / Automation & Robotics

Subject : Auto CAD and 3D Printing

Time : 3 Hrs.   M.M. : 60

SECTION-A

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

Q.1 The file format commonly used for 3D printing is (CO4)

a) DOC   b) STL

c) DWG   d) All of above

Q.2 What are the basic characteristics of 3D Printing? (CO3)

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

Q.3 Which among the following is not a type of Non-destructive testing? (CO5)

a) Compression test

b) Visual testing

c) Ultrasonic testing

d) Eddy current testing

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 Rect, array is to create object (CO2)

a) In a grid pattern

b) In a rectangular pattern

c) In a curved line

d) All of the above

Q.6 The file extension that cannot be accessed by Auto CAD is (CO1)

a) dwg　　　　　b) dxf

c) doc　　　　　d) dws

SECTION-B

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

Q.7 Define UCS 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 What is powder bed fusion (CO4)

Q.11 What is porosity defect (CO5)

Q.12 What is chamfer command use

SECTION-C

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

Q.13 How will you make a solid model from 2D drawing (CO2)

Q.14 Explain in brief design optimization for 3D printing (CO2)

Q.15 Explain basic editing commands used in autocad (CO1)

Q.16 Write a short note on UCS & WCS Co-ordinate system (CO1)

Q.17 Explain concept of 3D printing and its applications (CO3)

Q.18 Explain in brief materials used for 3D printing (CO3)