



**NBO-003-0271001**      Seat No. \_\_\_\_\_

**M. Sc. (ECI) (Sem. X) (CBCS) Examination**

**April / May - 2017**

**Futuristic Electronics & Technology : Paper - 37**

*(New Course)*

**Faculty Code : 003**

**Subject Code : 0271001**

Time :  $2\frac{1}{2}$  Hours ]

[ Total Marks : 70

- Instructions :** (1) All questions carry equal marks.  
(2) Figures on right hand side indicate marks.

**1**    Answer the following : (any **seven**) **14**

- (1) Write the function of following :  
TRIM, EXTEND, EXPLODE, JOIN
- (2) What is the difference between ortho and polar modes?
- (3) What types of object snaps available? How they are helpful?
- (4) Write any four properties of layer.
- (5) What different options are available in drawing an "ARC"?
- (6) Write the function of cancelling, undoing and erasing commands.
- (7) What is full form of PLA, ABS, FDM and DLP?
- (8) What is user coordinate system? Describe in brief.
- (9) What is full form of stl, SLM, CAD, DMLS?
- (10) Which key tips allow you to manipulate the ribbon with keyboard ?

**2**    Answer the following : (any **two**) **14**

- (1) How can you draw rectangle using fillet and rectangle commands? Explain with example. **7**
- (2) Describe and explain fillet and chamfer commands with suitable example. **7**
- (3) Explain OFFSET, COPY and ROTATE command with suitable example. **7**

- 3** Answer the following : **14**
- (1) Draw and explain a Stereo lithography 3D printer. **7**
- (2) Draw and explain a free form fabrication or extrusion 3D printer. **7**

**OR**

- 3** Answer the following : **14**
- (1) Write a note on plastic, metal, food materials used in 3D printing technology. **5**
- (2) Write about a working of 3D printer. How it can make an object? **5**
- (3) List the Draw panel and modify panel menu and it's submenu of AutoCAD. **4**
- 4** Answer the following : **14**
- (1) Draw and explain Laser sintering 3D printing technology. **7**
- (2) Describe types of array of AutoCAD. Explain with suitable example. **7**
- 5** Answer the following : (any two) **14**
- (1) Briefly describe a nesting, redefining and exploding block with suitable example. **7**
- (2) Write a note on inkjet binder jetting and material jetting 3D printing technology. **7**
- (3) Draw and Explain Electron Beam Melting (EBM) 3D printing technology. **7**
- (4) Write a note on splines and control vertices with suitable example. **7**

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