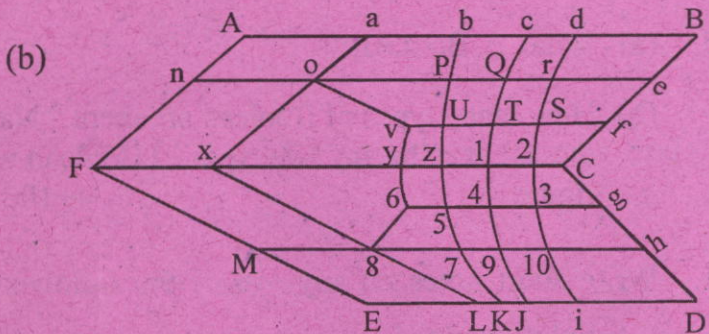# 3D MODELING

Full Marks – 70

Pass Marks – 28

Time – Three hours

The figures in the margin indicate full marks for the questions.

Illustrate your answers with suitable sketches and examples wherever necessary.

A. Answer any *four* questions.

1. (a)   What do you mean by NURBS ?

   (b)

How many faces, vertex and edges are there and indicate it.   2+8=10

   (c)   What do you mean by polygon model ?   4

2. (a) What is deformation ?

   (b) When is lattice deformation used in modeling ?

   (c) What do you mean by 3D modeling ?

   $$4+6+4=14$$

3. (a) What do you mean by Move tool, Rotate tool, Scale tool in Maya ?

   (b) Briefly explain the different types of Move tool with diagram.

   (c) Write a short note on Tool menu in Maya.

   $$6+4+4=14$$

4. (a) What is meant by Extrude ?

   (b) What is the function of the Clt+A ?

   (c) Define shelf tab in Maya. $$5+4+5=14$$

5. (a) What is Boolean ?

   (b) How many types of Boolean are there ? Name them. Describe any two types of Boolean with figure. $$4+10=14$$

6. Write short notes on any *two* of the following :

   (a) Subdivision

   (b) Edit curves

   (c) Split polygon tool. $$7+7=14$$

B. Answer any *one* question. 9

(i) How to convert NURBS model to polygon model ?

(ii) What is the difference between polygon and NURBS ?

C. Multiple choice questions : 1×5=5

(a) What is the option in 3D that regenerate your final image or animation ?

(i) Playing

(ii) Save

(iii) Generation

(iv) Rendering.

(b) .... is the option to create a circle.

(i) Shape

(ii) Geometry

(iii) Sphere

(iv) Modify panel.

(c) MAYA is uses by ....

   (i) Casual game

   (ii) Video game developer

   (iii) Game programmer

   (iv) Game programming.

(d) Move tool, Rotate tool and Scale tool shortcut key.

   (i) A, B, F

   (ii) W, E, R

   (iii) G, H, J

   (iv) None of the above.

(e) Open Attribute Editor

   (i) Shift+6

   (ii) Alt+R

   (iii) Ctrl+A

   (iv) None of the above.