3D MODELING (Specialization-I)

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.

1. Choose the correct option : 1×5=5

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

    (i) Rendering

    (ii) Save

    (iii) Generation

    (iv) JPEG

(b) A 3D Studio Max file saves as a —— file.

  (i) MDS

  (ii) 3DS

  (iii) MAX

  (iv) STUDIO

(c) What is the shortcut key for Material Map/ Browser in 3D Max ?

  (i) N

  (ii) F9

  (iii) M

  (iv) Shift + M

(d) What map is used to give shine to an object ?

  (i) Specular level

  (ii) Specular color

  (iii) Ambient level

  (iv) Ambient color

(e) 3D Studio Max was initially developed by a company called.

    (i) Kinetic

    (ii) Auto desk

    (iii) MAYA

    (iv) Discreet

2. Write true or false :   1×5=5

    (a) Append to polygon tool fill the Mesh hole and create another Mesh.

    (b) Insert edge loop tool creates Face.

    (c) Cut faces tool creates a vertex.

    (d) During 3D modeling transformation (freeze) ratio should be 07.

    (e) Pyramid primitive has a square or rectangular base and triangular sides.

Answer question No.3 and any *three* from the rest.

3. (a) What is the benefit of the Align tool in 3Ds Max ?

    (b) What are the various views provided in 3Ds Max ? Describe in any one views.

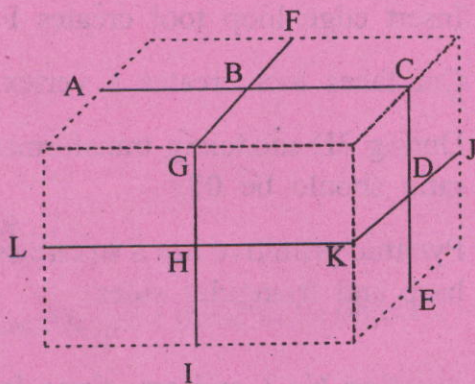(c) What is the main function of the modify panel ?   5+5+5=15

4. (a) What is the full form of NURBS ?

(b) How to convert NURBS model to polygon model in MAYA ?

(c) What is the difference between polygon and NURBS ?   1+7+7=15

5. (a) Define shelf tab in Maya ?

(b)

The diagram is a cube which has edges (AB, BC, CD, DE, FB, BG, GH, HI, LH, HK, KD, DJ) drawn by insert edge loop tool. What are the other two option through which you can make the same edges ? Discuss it step by step.   5+10=15

6. (a) How many types of Boolean are there ? Name them. Describe any two types of Boolean with figure.

   (b) Can you edit anything in the same model after modeling texturing ? Give reason for your answer. 8+7=15

7. (a) What are the differences between the sculpt geometry tool and the soft modification tool ? Write down the options available in each of these tools.

   (b) What are the various steps for setting up image planes in Maya to create an organic or inorganic model ? Describe the process. 8+7=15

8. (a)
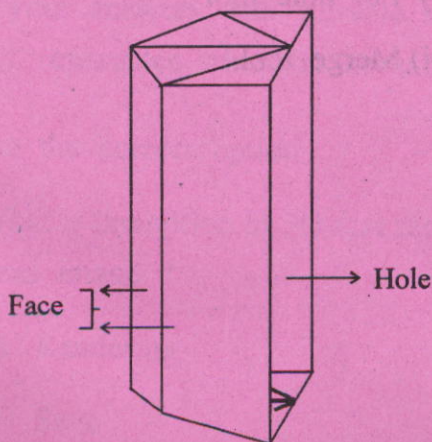
The above diagram is a half cylinder. Discuss step by step how you can make a full cylinder in the MAY.

(b) Discuss how do you create a group inside the on liner while doing modeling.

(c) According to you triangle mesh / four-sides mesh, which will be suitable to create a character model is the Production House. Give reasons for your answer. 5+4+6=15

9. (a) Which flow is used for eye modeling and why ? Discuss with diagram.

(b) Write short notes on the following modeling tools. (any *two*) :   7+8=15

(i) Loft tool

(ii) Fill hole tool

(iii) Merge tool.