2024

3D MODELING AND TEXTURING

Full Marks : 100

Time : Three hours

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

*Answer **any five** questions.*

1. a) Why are 3D modeling and texturing significant aspects within the realm of design? **10**

    b) Could you explain the functionality and utility of the Bevel and Extrude tools in 3D modeling software, accompanied by a diagram illustrating its operation? **10**

2. Could you outline the procedural steps for configuring image planes in Autodesk Maya for the purpose of creating either organic or inorganic models? Please provide a detailed description of the process. **20**

3   Define polygons and NURBS (Non-Uniform Rational B-Splines) in the context of 3D modeling. Discuss the differences between these two modeling techniques, including their characteristics, applications, and advantages/disadvantages. Provide examples to illustrate the use of polygons and NURBS in various 3D modeling scenarios **20**

4. What is the technical definition of texturing in the context of 3D graphics, and how does the HyperShade tool contribute to the texturing process? Please elaborate on the role of HyperShade within the texturing workflow **20**

5. Shot question any two: **10+10=20**
    a) Maya View port
    b) Texture Image
    c) Boolean
    d   Render

6. The below 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.
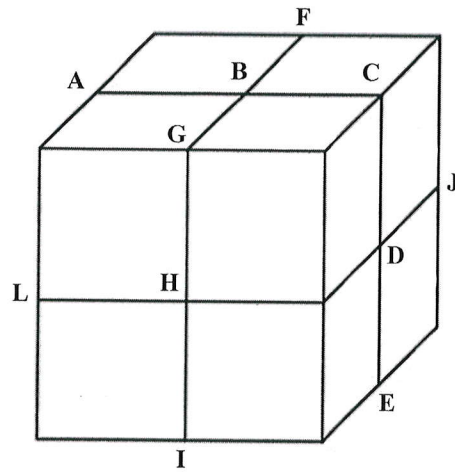
What are the other options through which you can make the same edges? Discuss it step by step.

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