

B.Sc.-II Professional Science Semester IV Examination, April-2022

**Animation Science
BAST - 401 3D MAX-I**

Question Bank

Q1) Define following Term/ Answer in one sentence .

[5x2=10]

1. Describe Shape Merge?
2. What is full form of PAL.
3. What is Auto key?
4. What is RAM Player?
5. What is Affect region?
6. What is Full form of SMPTE?
7. Pivot point
8. Ink-paint
9. Gimble lock
10. Irfan view
11. What is command panel?
12. What is Terrain?
13. interface panel
14. What is Blob mesh.
15. Taxidermy
16. geometrical 3D object
18. what is dynamics in 3D Max?
19. camera angle
20. rendering parameters
21. spray and.
22. super spray
23. Autokey
24. FPS
25. Quad Menu

Q2) Attempt any two of the following.

[20]

1. How to display a texture assigned to an object in the viewport and activate it?
2. How to Animate day and night scene of a street with the help of lighting?
3. Explain material editor with details.
4. Describe in detail about NURBS and BLINN.
5. Describe and explain 3D Max interface with detailed figure.
- 6 Explain Autodesk 3D Max history with details.
7. Explain how to combine two object using Boolean effect. describe with details parameter.
8. Discuss in detail about grid, snap and guide with examples.
9. Explain the concept of Biped animation.
10. Explain Feathered vs. Inverse Kinematic.
11. What is CV, EP, Bezier?
12. How to create render for layer compositing?
13. What is Architectural standard texture?
14. What is HDRI and explain in detail.
15. What is difference between Mechanical rig and Vehicle rig?

Q3) Attempt any four of the following.

[20]

1. What are the various animation options in 3DS max?
2. Explain the primitives in 3DS Max.
3. Discuss the parameter modifiers.
4. Describe Nurbs modelling.
5. What are the default 2D shapes?
6. Explain the concepts of modeling.
7. Discuss about Raytral maps.
8. Explain diffuse mapping and creating new Tercouse.
9. Write short notes on frame rate and time configuration.
10. How will you finalize character model and texture?
11. How working with key on 3D Max?
12. What is Forward kinematics?

13. Explain Autodesk 3D Max history with details.
14. What is NTSC, SMPTE and PAL?
15. Explain path constrain.
16. Explain ACE extended objects with details.
17. How enabling ghosting in max?
18. Explain any three modifiers with detailed animation.
19. Define Standard lights
20. What is Boolean option? How Boolean useful for 3D Max Modeling.
21. How to animate object using Space wrap?
22. What is Inverse Kinematic?
23. Bump & Displacement Maps
24. Explain men set in the 3D Max
25. Explain highpoly.
26. what is Biped character?
27. What is rigging?
28. What is node and attributes?
29. How to expand the sub-object element selection equally in all directions.
30. Explain the concept of viewport

Solve the all-assignments compulsory.

Assignment No: 1

Q.1 Answer the following questions.

(2 Marks)

- 1) What are the different types of 3D modelling?
- 2) What are the 2 basic types of 3D model?
- 3) What are the 4 default viewports in 3D Max?
- 4) What is viewport in 3ds Max?
- 5) What is 3D Max software used for?
- 6) Where is viewport in 3ds Max?
- 7) What is a primitive in 3ds Max?
- 8) What is the most simple 3D shape?
- 9) What is rigging in 3D Max?
- 10) What is Character Rigging?

Q.2 Answer the following questions.

(10 Marks)

- 1) Explain the material editor and rendering menu in MAX.
- 2) Describe the steps for creating Armchair in detail.
- 3) Explain the 3D MAX interface in detail.
- 4) Describe the steps for creating architecture of any home in MAX
- 5) Explain the File menu in detail.

Q.3 Short answer question (Attempt any FOUR)

(5 Marks)

1. Explain the geometry and shape primitives in 3D MAX.
2. Explain the following modifiers: Lathe, Edit poly, twist.
3. Write a note on MOVE, ROTATE, and SCALE.
4. Write a note on Rendering set up control in detail.
5. Explain the Standard and Extended primitives in 3D MAX.
6. Explain the following – TRACK BAR, STATUS BAR

Assignment No: 2

1. What is keyframe in 3ds Max?
2. What is animation in 3ds Max?
3. What is keyframe and what is the use of keyframe?
4. What is the purpose of keyframes?
5. What are the 4 different types of keyframes?
6. Define 3D MAX Interface with diagram.
7. Explain the use of Lighting.
8. Where we use Material Editor.
9. What is the use of mental ray?
10. Explain transformation of object.

Q.2 Answer the following questions.

(10 Marks)

- 1) Describe the steps for creating Table and Fruit plate.
- 2) Explain the polygon modelling in detail.
- 3) Describe Connect, Bridge, Bevel, Ring, and Extrude with example.
- 4) Explain the steps for creating Flower pot and Lamp in detail.
- 5) Explain 3D MAX interface. Describe each interface element briefly.

Q.3 Short answer question (Attempt any FOUR)

(5 Marks)

1. How we create and animate TEAPOT object in MAX.
2. Write a note on Environment and Effect.
3. Write a note on Environment and Effect.
4. Describe 3D-modeling and explain its types in detail.
5. Explain transformation and its types.
6. Describe the steps for creating TABLE and CHAIR object.

Assignment No: 3

- 1) Draw the diagram of Command Panel.
- 2) What is mean by Modifier Stack?
- 3) Applications of 3D MAX.
- 4) Define command panel with diagram.
- 5) Explain the use of Animation.
- 6) Where we use LATHE modifier.
- 7) What is the use of mental ray?
- 8) Explain transformation of object.
- 9) What is the use of TRACK BAR ?
- 10) Applications of 3D MAX.

Q.2 Answer the following questions.**(10 Marks)**

- 1) Explain Viewport in detail.
- 2) Describe Connect, Ring, and Extrude with example.
- 3) Explain the steps for creating COMPUTER peripherals
- 4) Explain 3D MAX interface .Describe each interface element briefly.
- 5) Explain the LOWER INTERFACE BAR and COMMAND PANEL in detail.

Q. 3 Short answer question (Attempt any FOUR)**(5 Marks)**

1. Explain any 5 tools in tool bar.
2. Write a short note on viewports.
3. Explain Navigation in 3d max.
4. Write a short note on Selecting Objects.
5. Write a short note on Transforming Objects.
6. Write a short note on Free Lights and Target Lights.

Assignment No: 4

- 1) How many steps for creating copies of that object.
- 2) Explain the use of Texturing in MAX.
- 3) Where we use TURBOSMOOTH modifier.
- 4) What is the use of TARGET LIGHT?
- 5) Explain Environment and Effect submenu menu.
- 6) Draw the detail diagram of 3D MAX interface.
- 7) What is the use of STATUS BAR ?
- 8) What is keyframe animation in 3D?
- 9) How are keyframes used in animation?
- 10) What is the purpose of keyframe?

Q.2 Answer the following questions.**(10 Marks)**

- 1) Describe the steps for creating Home with plan in detail.
- 2) Explain the working of sub object using edit poly modifier by creating Armchair.
- 3) Explain the File menu and its sub menus in detail.
- 4) Describe the steps for creating Table and Fruit plate.
- 5) Explain EDIT and Rendering menu in detail.

Q.3 Short answer question (Attempt any FOUR)**(5 Marks)**

1. Write a short note on Spotlights.
2. Explain Photometric Light Types.
3. Write a short note on Shadow Type.
4. What is keyframe in 3ds Max?
5. What is keyframe design?
6. Write a short note on Using time control in 3d max

Assignment No: 5

- 1) What is the difference between frame and keyframe?
- 2) Why is rigging important?
- 3) Where is rigging used?
- 4) What is bone tool in 3ds Max?
- 5) What is reaction manager in 3ds Max?
- 6) What file formats can 3ds Max open?
- 7) What contains OBJ file?
- 8) How many types of cameras are there in 3ds Max?
- 9) What is free camera in 3ds Max?

Q.2 Answer the following questions.

(10 Marks)

- 1) Explain EDIT and Rendering menu in detail.
- 2) Explain the polygon modelling in detail.
- 3) Explain the types of transformation of objects and viewport with detailed example.
- 4) Explain Menu bar and Toolbar of 3D MAX.
- 5) Explain the steps for creating Bottle using modifiers.

Q.3 Short answer question (Attempt any FOUR)

(5 Marks)

1. Write a short note on atmospheric effects in 3d max.
2. Write a short note on Transforming objects.
3. Write a note on Command Panel.
4. Write note on Rollouts in MAX.
5. Write a note on texturing in MAX.
6. Write a note on Pop-up window.

Question Bank
BAST-403- 3D-Maya-I

Q.1 Define following/ Answer in one sentence

1. What are 3D coordinates?
2. Name any four components of Maya Interface?
3. What is Shelf?
4. What is Texturing?
5. What is Workspace?
6. What is Marquee Select?
7. What are vertices and faces?
8. What is a channel box?
9. What is soft Selection?
10. What is the full form of NURBS?
11. What is Extrude?
12. Name any four primitive NURBS?
13. What is Bevel?
14. What is Texture Mapping?
15. How to increase subdivision axis for selected objects?
16. Write the name of any two renderers in Autodesk Maya?
17. What is Attribute editor?
18. What is UVs?
19. What is Rigging?
20. What is rendering?
21. What is Animation ?
22. What is a walk cycle?
23. What are primitives in maya?
24. How to write text in maya?
25. What is full form of .mb and .ma file?

Q.2 Long Answer

1. Explain interface of Autodesk Maya in detail?
2. What is Polygon Modeling and explain modeling of sofa.
3. Explain the process of creating Basket ball in detail.
4. Explain the file menu in Autodesk Maya in detail?
5. Explain following term:

(i) View Panel (ii) Shelves.

6. What is UVs, explain the type of UV mapping in detail?
7. Explain Modeling in Autodesk Maya and texturing with help of Photoshop?
8. Explain the interface of Autodesk Maya with a detailed diagram.
9. What is modeling? Explain type of modeling in detail.
10. Explain the process of creating galaxies in Maya?
11. Explain the process of creating Human Modeling in maya?
12. Explain process of creating fly modeling maya?
13. Explain the process of creating a car in maya?
14. What is a UV editor ? Explain in detail?
15. What is Mapping explain in detail?

Q.3 Short Answer

1. Explain layer editor.
2. Explain Tool Box in detail.
3. Explain UVs.
4. What is Sculpting?
5. Explain any five polygon primitives.
6. Explain process of creating Screw driver in Autodesk Maya.
7. Explain Parent and unparent objects.
8. How to navigate in Autodesk Maya using ViewCube?
9. Explain the process of creating a new project in Maya?
10. What is cylindrical UV mapping?
11. Explain any five polygon primitives.
12. Write a short note on Modeling in Autodesk Maya.
13. Write a short note on Booleans.
14. Write a short note on Channel Box?
15. Explain light in Autodesk Maya?
16. What is Planer UVs mapping?
17. Give information on Move, Rotate and Scale in Autodesk Maya.
18. Write a short note on polygon Primitives.
19. Write down the process of modeling a simple chair?
20. What is NURBS modeling?
21. What is Texturing?
22. What is a Multi Cut Tool Explain in detail?
23. What are Booleans?
24. What is Cylindrical Mapping?
25. What is Planar Mapping?
26. What is Automatic Mapping?

27. What is Bevel?
28. What is Extrude?
29. Explain working with export file format?
30. Explain Human Torso Modeling in detail?

B.Sc.–II Animation Science Semester IV Examination

IPR & Cyber Security (BAST – 405)

Q.1) Define Following Terms/Answer in one sentence. [5*2=10]

1. Define Cyber security.
2. Define File sharing.
3. Define URL.
4. Define Web.
5. Define Internet.
6. Hackers.
7. Internet.
8. Software.
9. IPR.
10. Piracy.
11. Define Denial of service attack.
12. Define web.
13. Define Software.
14. Define cookies.
15. Define Piracy.
16. Protocols (TCP/IP)
17. Remote Login Procedure
18. Role of ITU, WTO and ATP
19. Certifying or Governing authorities
20. Internet Service Provider
21. Communication Techniques.

22. Passive or Pull-Based Advertising
23. Virtual Banking Operations
24. Electronic payment procedure
25. Management of Domain names

Q.2) Attempt the Following

[10 Marks]

1. Explain the concept of computer viruses with its types.
2. Explain the concept of hackers with its types.
3. Explain the concept of cybercrime.
4. Explain different types of frauds in cybercrime.
5. Explain about viruses, software & prevention.
6. Explain the concept of Internet fraud with its types.
7. Explain the concept of spoofing & phishing.
8. Explain the concept of Internet & Web.
9. Explain the concept of hacker & cracker.
10. Define Electronic Data Interchange. What are the components of Electronic Data Interchange?
11. Explain how SSL protocol is used for secure transaction. Explain the advantages of e-commerce.
12. What role does SCM play in Business to Business model i.e B2B e-Commerce.
13. Discuss e-governance. Explain the Business to Administration model.
14. Discuss in brief virtual auction. Explain the differences between virtual auction and reverse auction.
15. What is Firewall? State the function of Firewall in e-commerce.

Q.3) Attempt the Following

[5 Marks]

1. Write short note on ATM fraud.
2. Write a short note on wire fraud.
3. Explain short note on child pornography.
4. Write a short note on Denial of services.
5. Write short note on Crackers.
6. Write a short note on Piracy.
7. Write short note on Trojan horse.
8. Write a short note on computer worm.
9. Write short note on phishing.
10. Write a short note on spoofing.
11. Write short note on cyber frauds.
12. Write a short note on child pornography.
13. Write a short note on computer viruses.
14. Write a short note on cybercrime.
15. Write short note on internet fraud.
16. Write short note on child pornography.
17. Write short note on Trojan horse.
18. Write short note on “Work from Home” scheme.
19. Trade cycle and describe the different stages of a Trade cycle.
20. Define digital cash or e-cash. Explain with example how an online banking system works.
21. Explain the working principle of DES algorithm.
22. Distinguish between SSL and SET protocol.
23. Explain EAN coding system for EDI message.
24. Explain the ways and means of protecting online website operations from hackers.

25. Discuss the features of online bookshop.
26. What is World Wide Web and Web Technology ?
27. What is called Network Security and Cryptography ? Discuss.
28. Explain the role of Government to Regulate Internet (censorship).
29. Explain the concepts of Data Organization and Data Management.
30. Explain about digital signatures, digital certificates and RSA algorithms.

Question Bank
(BAST-406)
Game Design -I

Que.1) One Sentences Answer Questions.

(2mark)

1. Define Toolbar.
2. Define Fixed Time step.
3. Define Mono Behavior.
4. Define Asset store.
5. Define Animator Controller.
6. Define Physics.
7. Define Material Editor.
8. Define Property inspector.
9. Define Directional Light.
10. Define Recasts.
11. What is Game View?
12. Define Hierarchy.
13. What is Normal Vector?
14. How to open 4 split views?
15. Define Spot light.
16. Define GPU.
17. Define Directional Light.
18. Define Spot light.
19. Define Material Editor.
20. Define Property inspector.
21. What is Game View?
22. Define Raycasts.
23. What is Normal Vector?
24. Define asset store.
25. Define Hierarchy.

Que.2) Long Answer Questions.**(10mark)**

- 1) Explain the Unity Interface.
- 2) Explain Factors that Enhances the Efficiency of Unity.
- 3) List out some key features of Unity3D and UE4 (Unreal Engine 4)?
- 4) List out the pros and cons of Unity 3D?
- 5) Explain what is the use of Asset Bundle in Unity3D?
- 6) List out some best practices for Unity 3D?
- 7) How to assign material to any object in Unity?
- 8) What are the characteristics of Unity3D?
- 9) What is the windows of Inspector in Unity 3D?
- 10) Explain the Unity's interface with draw diagram.
- 11) Discribe the Scene view in Unity 3D with diagram.
- 12) Explain the Hierarchy window in Unity 3D with diagram.
- 13) Explain the Toolbar with Diagram.
- 14) Explain game view
- 15) Explain project window with toolbar.
- 16) Explain the status bar.
- 17) Explain import and export file formats of unity.
- 18) Difference between Destroy and Destroy Immediate unity function.
- 19) What is Unity? Explain history of Unity.
- 20) How to create user interfaces (UI) and diagram of hierarchy panel.
- 21) Explain installation process of Unity and draw diagram of unity Interface.
- 22) Explain process of creating environmental background in unity.
- 23) Explain process of creating a character in unity.
- 24) Describe GPU and its usefulness for unity.

Que.3) Short Answer Questions.**(5mark)**

- 1) Write a short note on Materials.
- 3) Write a short note on Terrain Height maps.
- 4) Write a short note on Mesh Renderers.
- 5) Write a short note on Topology.
- 6) Write a short note on Shaders.
- 7) Write a short note on shader Terminology
- 8) Write a short note on Ambient light.
- 9) Mention important components of Unity 3D?
- 10) What are the characteristics of Unity3D?
- 11) Difference between Static and Dynamic Batching.
- 12) How to assign material to any object in Unity?
- 13) Explain Tool box of 3D Unity.
- 14) How to show and hide Overlays in Unity?
- 15) What does status bar exactly in Unity?
- 16) Write a short note on Hierarchy window.
- 17) What is 3D game objects?
- 18) List out the pros and cons of Unity 3D?
- 19) Write a short note on Hierarchy window.
- 20) What is Alembic in unity?
- 21) Write a short note on universal render pipeline.
- 22) How to create basic object in Unity.
- 23) Write a short note on overloading.
- 24) What is Abstract Class?

25)What does status bar exactly in Unity?

26)How to add camera to unity scene?

27)How Python is useful for Unity?

28)What is universal render pipeline?