BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Sc.(AM)-Hons-2021
Course Name – 3D Animation II
Course Code - BMMD601A
(Semester VI)

Full Marks : 60   **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question)   1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Identify the properties of a material that distinguishes between wood and metal.

a) Reflection   b) Refraction
c) Bump   d) Roughness

(ii) Identify the name of the process to create a sequence of images for your scene inside in Autodesk Maya.

a) Export   b) Batch Rendering
c) Save as   d) Make Movie

(iii) Identify the full form of MEL in Autodesk Maya.

a) Maya Extreme Logo.   b) Maya Embedded Language.
c) Maya Error Language.   d) Maya Error Loop.

(iv) Identify a common use of IK (Inverse Kinematics) in rigging.

a) Rigging facial expressions   b) Controlling character movement like walking or reaching
c) Adjusting object orient   d) Control child in hiearchy

(v) Select the significance of the connection editor in Autodesk Maya.

a) It links attributes between different objects   b) It generates character meshes
c) It can only link same attribute between meshes.   d) It connects Maya to external rendering software

(vi) Identify the shortcut to unparent objects in hierarchy in Autodesk Maya.

a) P   b) CTRL+ P
c) Shift + P   d) X

(vii) Choose the correct statement about keyframe in animation.

a) Keyframes are only necessary for character animation   b) Keyframes define the beginning and end points of an animation sequence
c) Keyframes are irrelevant in 3D animation software like Maya   d) Keyframes are only used in 2D animation

(viii) Select the technique used in animation to establish key poses and transitions between them.

a) Ghosting
b) Motion Path
c) Motion Trails
d) Banking

(ix) Choose the proper tool in Autodesk Maya used for creating a visual representation of an animated object's trajectory in the 3D space.

a) Motion Trail
b) Ghosting
c) Deformers
d) Motion path

(x) Choose the principle of animation that involves creating smooth transitions between poses by following natural curved paths of motion.

a) Anticipation
b) Arcs
c) Appeal
d) Solid Drawing

(xi) Identify the tool in Autodesk Maya used for controlling the interpolation between keyframes to achieve smoother motion transitions.

a) Dope Sheet
b) Time Slider
c) Curve Editor
d) Attribute Editor

(xii) Identify the importance of acting skills in animation.

a) Acting is irrelevant in animation.
b) Acting helps animators understand character emotions and movements.
c) Animators don't need to understand acting techniques.
d) Acting is only necessary in live-action films.

(xiii) Choose the primary purpose of using blocking with key poses in animation.

a) To finalize the animation.
b) To create complex camera movements
c) To establish the primary movements and poses
d) To add secondary actions to the animation

(xiv) Choose the primary purpose of using blend shapes for facial expressions.

a) To create character walk cycles.
b) To adjust the lighting in the scene.
c) To control facial expressions and emotions.
d) To design character models

(xv) Identify the primary purpose of Maya fluids.

a) To create rigid body simulations
b) To simulate soft body dynamics
c) To simulate fluid behavior like smoke, fire, and explosions
d) To generate particle effects

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Discuss parent constraints.   (3)
3. State the primary purpose of character rigging in Autodesk Maya.   (3)
4. Write the significance of character posing and gestures in animation. (3)
5. Express the importance of character walk cycles in animation.   (3)
6. Analyze the role of blend shapes in facial rig animation.   (3)

OR

Examine the process of creating blend shapes for facial rig animation in Autodesk Maya.   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. Explain the concept of the connection editor in Autodesk Maya and its significance in animation workflows.   (5)

8. Explain common use cases for parent constraints in Autodesk Maya and their importance in rigging.   (5)

9. Write the process of 3D projection mapping in Autodesk Maya.   (5)

10. Express, how can you manage a character's nonlinear animation in Autodesk Maya. (5)

11. Illustrate skeletal rig in 3D Animation. (5)

12. Explain the delta mush deformer. (5)

OR

Evaluate the impact of character rigging and animation on the overall quality of a 3D production. (5)

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