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BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – B.Sc.(AM)-Hons-2023
Course Name – 3D Animation and FX
Course Code - BAM60120
(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) Choose the keyframe interpolation method that provides a smooth transition between keyframes in Maya.
 - a) Linear
 - b) Constant
 - c) Bezier
 - d) Step
- (ii) Choose the correct principle of animation that helps create a sense of weight and flexibility.
 - a) Anticipation
 - b) Squash and Stretch
 - c) Timing
 - d) Staging
- (iii) Identify the tool used in Maya to set keyframes for animation.
 - a) Move Tool
 - b) Rotate Tool
 - c) Graph Editor
 - d) Set Key
- (iv) Select the principle that involves the preparation of an action before it happens.
 - a) Overlapping Action
 - b) Anticipation
 - c) Staging
 - d) Ease In and Out
- (v) Choose the best technique to create a bouncing ball animation in Maya.
 - a) Using only one keyframe
 - b) Adjusting timing and squash/stretch
 - c) Ignoring physics principles
 - d) Only using rotation
- (vi) Select the type of rigging that allows for automated secondary movements.
 - a) IK Rigging
 - b) FK Rigging
 - c) Manual Rigging
 - d) Static Rigging
- (vii) Choose the best method to create smooth bending of joints.
 - a) Hard Binding
 - b) Parent Constraint
 - c) Smooth Skinning
 - d) Freeze Transformations
- (viii) Identify the rigging technique used for controlling facial expressions.
 - a) IK Handles
 - b) Blend Shapes

- c) Rig Constraints
- (ix) Choose the type of deformation used to bend or twist a character's mesh.
 - a) Lattice
 - b) Cluster
 - c) Wrap Deformer
 - d) All of the above
- (x) Select the tool used to control a character's hand and leg movement dynamically.
 - a) IK Handle Tool
 - b) Extrude Tool
 - c) Bridge Tool
 - d) Lattice Deformer
- (xi) Select the correct function of Motion Path Animation.
 - a) Moves an object along a predefined curve
 - b) Changes texture mapping
 - c) Adjusts lighting settings
 - d) Controls UV projection
- (xii) Choose the best tool for creating character controls.
 - a) NURBS Curves
 - b) Boolean Tool
 - c) Bridge Tool
 - d) Extrude Tool
- (xiii) Choose the best method for controlling a character's fingers.
 - a) Set Driven Key
 - b) Motion Capture
 - c) Blend Shapes
 - d) Rigging Nodes
- (xiv) Choose the benefit of using Inverse Kinematics (IK) in leg animation.
 - a) Easier foot control
 - b) More complex setup
 - c) Less realistic movement
 - d) Faster rendering
- (xv) Identify the key element of a realistic character walk cycle.
 - a) Weight Shift
 - b) Texturing
 - c) Lighting
 - d) Rendering

Group-B

(Short Answer Type Questions)

3 x 5=15

- 2. Describe how overlapping action improves animation quality. (3)
- 3. Explain the difference between linear and Bezier interpolation in Maya. (3)
- 4. Write a short note on blend shapes in Maya. (3)
- 5. Describe the role of orientation in joint setup. (3)
- 6. Explain the importance of weight distribution in body mechanics. (3)

OR

Explain the role of Maya Fluids in CGI simulations. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

- 7. Write about the differences between straight-ahead animation and pose-to-pose animation. (5)
- 8. Write the advantages of using control curves in rigging. (5)
- 9. Explain how rigging influences character animation workflow and performance. (5)
- 10. Describe the difference between single-chain IK solvers and rotate-plane IK solvers. (5)
- 11. Write the benefits of using the IK-FK switch in character animation. (5)
- 12. Describe the function of constraints in rigging a character. (5)

OR

Describe the differences between IK and FK in rigging. (5)
