

Dr. Babasaheb Ambedkar Open University
Term End Examination February – 2026

Course	: BCADES	Date	: 20-Feb-2026
Subject Code	: BCADES-208 (Animation)	Time	: 03:00pm to 05:15pm
Subject Name	: Character Animation	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Explain the concept of Character Animation and discuss how Character Studio helps in creating lifelike characters.
2. Describe different motion capture techniques used in animation.
3. Explain the Motion Mixer concept and compare it with an audio mixer.
4. Explain Biped Balance and why balance compensation is required in animation.
5. Explain Frame Display Group settings and their effect on animation.

Section B

Answer the following (Attempt any four) (20)

1. Define Biped and explain how it can be customized to create different characters.
2. Explain the concept of Footstep Animation and its significance in biped animation.
3. Explain Layer Track and its use in non-linear animation.
4. Describe the role of Reservoir in managing motion clips.
5. Explain Motion Flow Script and its role in character animation.
6. Discuss the concept of Freeform Animation and its advantages over footstep animation.

Section C

Part – A (Multiple Choice Questions) (10)

- 1 Character Studio is a powerful extension of which software?
A Maya B Blender
C 3Ds Max D ZBrush
- 2 Which component of Character Studio is used for skinning the mesh to the skeleton?
A Biped B Physique
C Footstep D Motion Flow
- 3 Which vertex type moves rigidly with the bone without deformation?
A Rigid B Flexible
C Deformable D Soft
- 4 Footstep animation automatically generates which type of data?
A Materials B Lighting
C Textures D Keyframes
- 5 Where can footsteps be moved in time?

- | | | | | |
|--|---|----------------|---|-----------------|
| | A | Modifier Stack | B | Viewport only |
| | C | Track View | D | Material Editor |
- 6 Motion Mixer is conceptually similar to which system?

A	Video editor	B	Audio mixer
C	Game engine	D	Image editor
 - 7 What does a weight curve control in Motion Mixer?

A	Contribution of motion	B	Clip size
C	Clip colour	D	Frame rate
 - 8 What is an adaptation in Motion Mixer?

A	Same clip on same biped	B	Deleted clip
C	Hidden clip	D	Clip modified for different sized biped
 - 9 Which storage area is used for motion clips (BIP files)?

A	Timeline	B	Reservoir
C	Track Group	D	Layer
 - 10 Which Footstep Creation option specifies frames when both feet are on the ground during a walk?

A	Double Support	B	Airborne
C	Walk Footstep	D	Speed

Part – B (Do as Directed)

(10)

State whether the following statements are true or false

- 1 Character animation focuses on creating the illusion of thought and emotion in objects.
- 2 Figure Mode changes made to a biped are retained even after exiting the mode.
- 3 Testing a character for bad vertices is an optional step in the Character Studio workflow.
- 4 Editing footsteps in space does not affect existing key frames.
- 5 Foot states are represented as coloured keys in the Track View – Dope Sheet.
- 6 Layer tracks allow overlapping clips with automatic blending.
- 7 Instances and adaptations in Motion Mixer always create separate BIP files automatically.
- 8 The Reservoir stores both original motion clips and their adapted versions.
- 9 Rigid vertices are mainly used in areas like joints to allow smooth deformation.
- 10 Footsteps in Biped act as spatial and temporal guides for character movement.
