

# Certified Associate: Game Development Certification

## Voucher Academic

### Welcome to Unity

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1. Score accumulation, attacking, and player health are examples of:  
**Game mechanics**  
Physics implementation  
Audio implementation  
Game narrative
2. Possible release of information about work at a studio is often governed by this kind of legal contract:  
**Non-Disclosure Agreement**  
Contract of Binding  
Constitution of Intellectual Property  
Civil Discourse Agreement
3. Concept art:  
Is only useful in a first person game  
Lays out every light and material used  
**Provides a unifying point for art direction**  
Helps define game play and mechanics
4. At a game studio, this person is responsible for ensuring the overall look and feel is consistent:  
Game designer  
**Art director**  
Level designer  
Concept artist
5. This game type often features mechanics such as card games, board games, simple arcade style games, and puzzles:  
**Casual games**  
Installation games  
Console games  
Exploration games

### Unity User Interface

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6. To reconfigure the Unity Editor user interface:  
Choose Window > Window Locations from the menu  
**Drag windows by their tabs into new locations**  
Control + click on the tabs and choose Reposition  
Open the windowprefs.cs script and enter positions
7. Which window in the Unity Editor allows you to view, sort, and organize all of the assets

for the game?

Hierarchy Window

Inspector Window

Project Window

Scene View Window

8. Which window allows parenting of GameObject?

Outliner

Project

Hierarchy

Inspector

9. The Project Window allows you to:

Parent objects in a hierarchy

Change the maximum size of textures

Add components to GameObjects

Modify the file structure of assets

### Using GameObject and Assets

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10. A Prefab in the Unity Editor is:

A file format that allows the transfer of assets between Unity project and scenes

An asset type that stores a GameObject with components and properties

A special kind of GameObject that accesses Animators without scripting

A modular component attached to a GameObject for scripting and animation

11. Unity can import this transfer file format for models having meshes, bones, skin weights, and animation:

OBJ

HCQ

DXF

FBX

12. Which of the following statements best differentiates a Quad from a Plane?

The Plane has internal divisions and more polygons

The Quad is double-sided

Quad can be sculpted using terrain tools

The Plane has less geometry

13. Saving a scene saves:

All associated scenes and asset bundles in a project

Object transforms, project settings, and undo history

The current placement of objects in the scene and Hierarchy

The inspector settings, scripts, assets, and nested Prefab structure

14. Which tool allows you to manually slice an image into multiple sprites?

The UI Canvas

The Sprite Editor

The Bitmap Tools

The 2D Prefab Editor

## Managing Projects and Assets

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15. The script type is supported in unity:

Python

Lua

C++

C#

16. Acceptable formats for audio are:

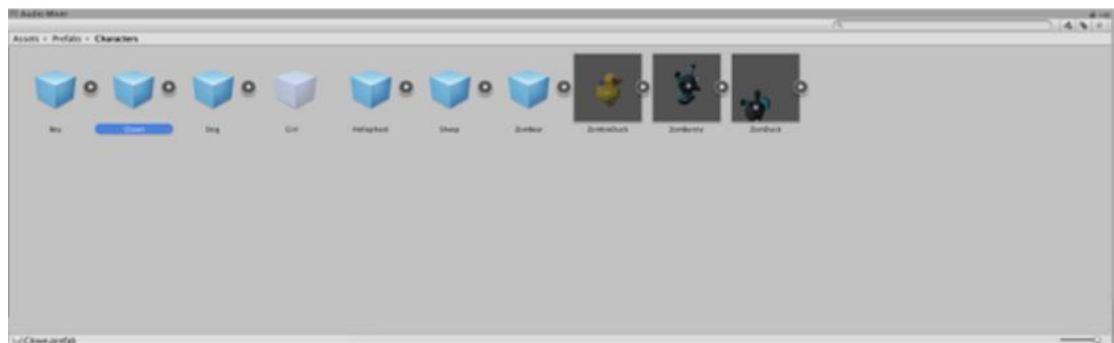
MIDI, RCA, IFF, and MP3

MP3, QuickTime, and Egg

AIFF, MP3, WAV, and Ogg

WAV, MP4, Ogg, and AVI

17. The Breadcrumb trail in the Project Window shows:



The local repository clone

The file path of the Unity project

The structure of the open project

The file path of the selected asset

18. The Project Window toolbar allows searching of assets by:

Type and Tag

Label and Color

Label and Type

Tag and Parent

19. Modifying the organization of assets is done in the:

Inspector Window

Hierarchy Window

Project Window

Scene View Window

## Preparing Assets for Implementation

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20. The Albedo of a material is defined as:

A raw diffuse color before any weathering is applied

The diffuse color of the material in general light

The color of the material without any lighting data

- The blocking of bounced light by adjacent surfaces
21. This material property controls spreading of light on microsurface detail:
- Normal
  - Ambient Occlusion
  - Smoothness
  - Metallic
22. This material property causes polygons to appear and light as if they had more surface detail:
- Emission
  - Metallic
  - Smoothness
  - Normal
23. This material rendering mode uses black in an alpha channel to define where a material is exactly NOT appearing:
- Transparency
  - Cutout
  - Opaque
  - Fade
24. The Specular property of a material:
- Defines where surfaces will receive high or low amounts of indirect light
  - Controls the color and strength of reflection
  - Modifies the surface to show more detail than the polygons actually have
  - Controls the spreading of light on microsurface detail

#### Assembling the Game Level

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25. To add a Box Collider to a GameObject using the top menu, choose:
- Objects>Physics>Box Collider
  - Components>Physics>Box Collider
  - Assets>Create>Colliders>Box
  - Physics>Collisions>Box
26. The role of a Raycast is to:
- Provide a placement zone for autonomous agents
  - Create obstacles for the player GameObject
  - Locate Colliders along the path of a ray
  - Return lighting information based on normal angle for shaders
27. In a Rigidbody component, this determines the air resistance from forces affecting the GameObject:
- Drag
  - Mass
  - Collision Detection
  - Interpolation
28. Which window allows parenting of GameObjects:
- Hierarchy Window

Scene View Window

Project Window

Inspector Window

29. In a Rigidbody, this enables objects to fall:

**Use Gravity**

Enable Mass

Scene.gravity

Mass.Apply

## Lighting in Games

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30. This light type emits in a cone, with the light spreading out as it gets farther from the source:

**Spot**

Area

Point

Directional

31. On a Light Component, a Culling Mask:

**Determines which layers are affected by the light**

Determines which layer a light is on for rendering

Shapes the light based on the alpha channel of a texture

Prioritizes the importance of the light in Deferred Rendering

32. Changing the intensity of a light adjusts:

Photometric web

Color

Lumens

**Brightness**

33. What type of light is casting the shape on the wall and floor?



Skybox

Point

Spot

**Directional**

34. This shadow type casts shadows that approximate the natural fuzziness of real shadows

due to emission area size and the bouncing of light:

Hard

Blur

Soft

Area

## Baking Lighting in Game

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35. Selecting Generate Lightmap Uvs in the Import Settings of a model:

Maps the shadow maps to the UV coordinates for shading

Forces Lightmaps to use existing UV coordinates for lighting

Creates a additional set of UV coordinates for lightmap data

Generates lighting data based on scene lighting inputs

36. To darken the ambient occlusion in baked lighting:

Deepening the Dark color towards black

Increase the Max Distance

Decrease the number of GI bounces used

Increase the Ambient Occlusion amount

37. Lightmaps:

Store lighting data that has been pre-calculated

Determine the quality of the shadows cast in game

Guide the player through the level using lighting

Assign areas of greater or lesser resolution for baking

38. Which kind of file do Lightmaps use to store data?

TGA

JPG

TIF

EXR

39. Light Probes are used to:

Determine the necessary specular value of a material

Sample baked lighting at specific points in a scene

Measure lighting intensity from a camera placement

Sample reflection data at specific points in a scene

## Animating GameObjects in the Unity Editor

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40. Animations are stored in the Unity project as:

Animator elements

Animation components

Motion files

Animation clips

41. The play controls shown in red indicate the Unity Editor is in this Mode:



Motion Tracking

Animation Record

Animator Setting

Real-time Effects

42. This view in the Animation Window allows multiple objects' keys to be shown on horizontal tracks:

Dope Sheet

Animator

Curve Editor

Animation component

43. This view in the Animation Window shows animations as graphs:

Animation component

Curve Editor

Animator

Dope Sheet

### Bringing Animations into the Game

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44. The default transition is based on:

Speed Factor

Last Key

Exit Time

End Time

45. Which of the following sequences best describes how you would create a new transition:

Right-click in an open area and choose Make Transition

Right-click on a state and choose Make Transition

Choose Create > Animation > Transition from the menu

Shift + drag the animation state onto another state

46. Define the role of the Any state:

A state that applies its behaviors to all states

An animation that counterbalances any other animations

A limitless state accessible only by Boolean parameters being true

A state that allows transitions from any other state

47. To create an Animator Controller:

Choose Create > Controller > Animator from the top menu

Hold Shift and right-click on any open space in the Inspector

Right-click in the Hierarchy window and choose Create > Animator Controller

Right-click in the Project window and choose Create > Animator Controller

48. Animator Controllers allow you to:

Arrange and maintain a set of animations for a GameObject

Create and animate Controller for a GameObject

Animate GameObject using tangents for speed control

Trigger events on an animation timeline by proximity

49. One way to apply an Animator Controller to a GameObject is:

Click the Insert button with the GameObject selected in the scene

Drag from the Project window onto the GameObject in the Inspector

Click on the GameObject in the scene while holding Alt/Option + Shift

Drag from the Inspector on to the GameObject in the Hierarchy

## Scripting in Game

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50. Which type of variable is accessible to other scripts?

Public

Integer

String

Private

51. DeltaTime counts seconds between:

Movements

Draw Calls

Frames

Scenes

52. What data type must be used in the following code? \_\_\_\_ number = 8.0f;

Integer

Float

Factor

String

53. A method is used to:

Set Parameters

Delineate Variables

Define Classes

Group Instructions

54. Finish the following code to reference the gameObject's position: Vector3 pos = \_\_\_\_;

Vector3(position)

Transform.position

Transform.parent.position

gameObject.position

## Implementing Navigation and Pathfinding

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55. Which of the following best describes the function of a Nav Mesh?

Establishes player-restricted areas

Defines walkable surfaces for Nav Mesh Agents

Culls Nav Mesh Agent visibility by line of sight

Necessary for implementation of a mini-map

56. The process of creating a Nav Mesh from the level geometry marked as Navigation Static is called:

Building

Ordering



Implementing

### Baking

57. What does Max Slope do in navigation?

Defines the steepest angle that Nav Mesh Agents can walk up

Implements stairs instead of ramps based on an angle

Sets the downward slope for Nav Mesh Agents to balance on

Forces a change in animation to climbing dependent on angle

58. Obstacle avoidance is how Nav Mesh Agents:

Use static obstacles to limit Nav Mesh Agents' movement

Avoid collisions with other Nav Mesh Agents and geometry

Use scripted behavior of Nav Mesh Agents to duck and jump

Fold the Nav Mesh to deter agents' movements

### Building the Player and Allies

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59. Which of the following sequences best describes how you would create an Animator Component on an object?

Shift-click on an object in the scene and choose Animations > Animator

Click on the Components button and choose Animations > Animator Controller

Click on the Components button and choose Layouts > Animator

Click on the Add Components button and choose Miscellaneous > Animator

60. Which method does not return a value?

Public class Player()

Void Start()

Ienumerator Start()

Bool IsAlive()

61. In Order to define new virtual input axes, you need to configure the key mapping in the:

User input script

Inspector

Input Manager

Keyboard Values

62. The Awake method is called when:

Meshes are loaded

An animation starts

The physics are calculated

A script is loaded

63. Score accumulation, attacking, and player health are example of:

Audio Implementation

Game Narrative

Game Mechanics

Physics Implementation

### Building the Enemies

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64. A floating point variable is distinguished by what letter immediately following the number?
- V
  - X
  - H
  - F**
65. Dragging an Animator Controller onto a GameObject in the Inspector creates an:
- Instanced Prefab nest
  - Animator component**
  - Animation component
  - Animation clip instance
66. In game design, non-player characters are:
- Always enemies
  - Computer-controlled**
  - Only in role playing games
  - Controlled by other players
67. Besides Exit Time, transition conditions can be driven by:
- Interactions
  - Animators
  - Parameters**
  - Conditionality
68. When enabled, which Collider property allows GameObject to pass through the Collider?
- Is Kinematic
  - Is Trigger**
  - Non-Physic material
  - Use Gravity

### Creating Particle Systems

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69. The Shape section of a particle system defines the geometry of the:
- Forces
  - Player Field
  - Particles
  - Emitter**
70. Which Emit From option allows particles to originate from anywhere within the emitter geometry?
- Volume**
  - Base Shell
  - Base
  - Volume Shell
71. In a particle system of smoke, which property is used to change from dense black, to semi-transparent gray, and finally white?
- Change Color by Duration
  - Color Over Lifetime**

Inherit Light From Parent  
Random between Constants

72. To create an effect showing multiple particles spawning from the originals, you would use a:

Particle splitter  
Cloned system  
**Sub-emitter**  
Child-branch

73. Circle, Edge, Box, and Cone are examples of:

Mesh Primitives  
Light Cookies  
**Emitter Shapes**  
Camera Framing

## Adding Audio to Game Levels

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74. What is the effect applied to the Soundeffects group called?



Attenuation

**Flange**

Lowpass  
Snapshot

75. Which option begins playing the sound as soon as the GameObject loads?

Sound.PlayOnEnter  
Begin on Start  
Wake on Opening  
**Play on Awake**

76. To simulate the echoing and distortion of a type of sound environment such as cave, arena, or forest, which of the following audio components would be the best option to use?

**Reverb Zones**  
Soundscapes  
Audio Listeners  
Flange Filters

77. To make a sound play over and over, which of the following needs to be checked?

Replay

Repeating

Looping

Continuous

78. To modify the volume of an audio clip, the clip must be applied to:

An audio source component

A sound properties component

An audio clip modifier

The amplitude of an audio mixer

### Building the Camera and Player Selection System

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79. To create this placeholder for animation in the Animator Window, you would first right-click in any open area. Your next action would then be to choose:

New from Blend Tree

Create > State

Create > Empty

Make > New

80. This Transition Parameter type is reset by the controller when consumed by a transition:

Integer

Float

Bool

Trigger

81. Which method gets a reference to a component on a GameObject?

FindComponent

Component.reference

GetComponent

GameObject.Find

82. A \_\_\_\_\_ executes a set of instructions and can either return a value or not return a value.

Variable

Method

Pragma

Subroutine

83. In this line of code, which of these does not set playerPosition to 0,0,0?

Vector3 playerPosition = \_\_\_\_\_;

Vector3.zero

Vector3(0)

New Vector3(0,0,0)

New Vector3.default

### Designing User Interfaces for Games

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84. In which UI component would you use a Sprite?

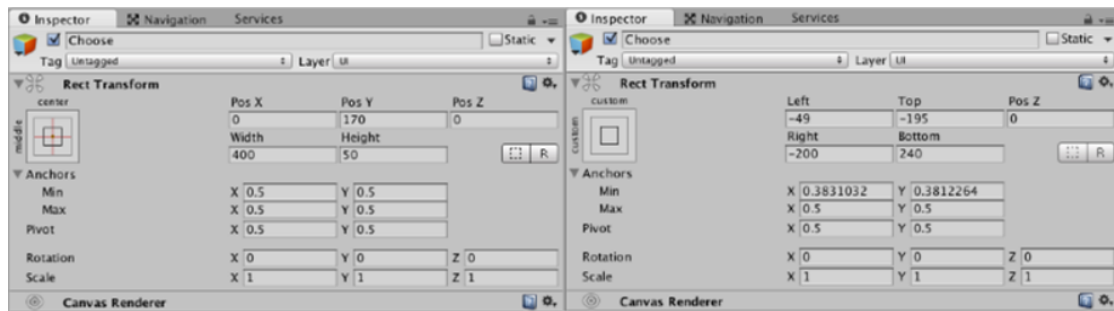
Raw Image

Button

Texture

Image

85. In the Image shown, what has caused the change in property names of the Rect Transform?



Moving the pivot

Splitting the anchor

Choosing Screen Space

Adding a slider

86. Some of the available options for the Transition property of a button are:

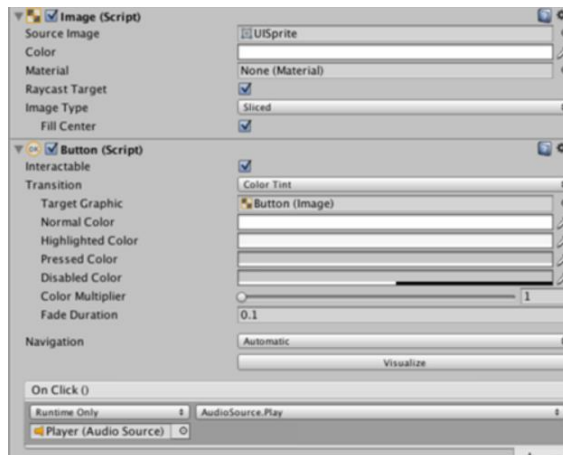
Sprite Tint and Animator

Animator and Animation

Sprite Swap and Color Tint

Color Over Life and None

87. What method is called when this button is clicked?



Button.Play

AudioSource.Play

Player.OnClick

Runtime Only

88. Which component allows the canvas to resize with a display?

Event System

Canvas Transform

Canvas Scaler

Rect Transform

Building and Deploying the Game

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89. Differentiate between Rewarded and Simple Ads:

Rewarded Ads cannot be skipped by default

Rewarded Ads provide more money per click

Simple Ads are static images

Simple Ads are unlimited

90. In order to utilize Unity Cloud Build, your project must be synced to:

A source control repository

Unity Asset Server

An external hard drive

Network attached storage

91. An image for an Image component must be imported as this type:

Alpha

Texture

PNG

Sprite

92. Which identifier is used to link a project data feed to Unity Analytics?

Project Name

Scene Name

Project ID

ID Certificate

93. Android, web, and IOS are some of the supported platforms for:

Performance Monitoring

Unity Cloud Build

Rapid Sync

Unity Ads