UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, July 2020

Programme Name : B.Tech CS (MAD)   Semester   : IV
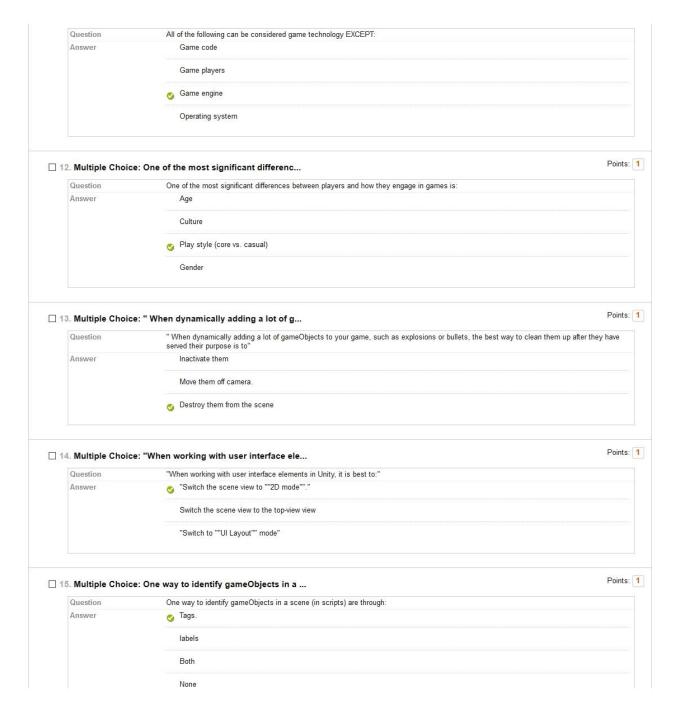Course Name   : Introduction To Game Programming   Time   : 02 hrs
Course Code   : CSGG 3002

Question	All of the following can be considered game technology EXCEPT:
Answer	Game code
	Game players
	✅ Game engine
	Operating system

☐ 12. Multiple Choice: One of the most significant differenc...

Points: **1**

Question	One of the most significant differences between players and how they engage in games is:
Answer	Age
	Culture
	✅ Play style (core vs. casual)
	Gender

☐ 13. Multiple Choice: " When dynamically adding a lot of g...

Points: **1**

Question	" When dynamically adding a lot of gameObjects to your game, such as explosions or bullets, the best way to clean them up after they have served their purpose is to"
Answer	Inactivate them
	Move them off camera.
	✅ Destroy them from the scene

☐ 14. Multiple Choice: "When working with user interface ele...

Points: **1**

Question	"When working with user interface elements in Unity, it is best to:"
Answer	✅ "Switch the scene view to ""2D mode""."
	Switch the scene view to the top-view view
	"Switch to ""UI Layout"" mode"

☐ 15. Multiple Choice: One way to identify gameObjects in a ...

Points: **1**

Question	One way to identify gameObjects in a scene (in scripts) are through:
Answer	✅ Tags.
	labels
	Both
	None

16. Multiple Choice: "If two gameObjects have colliders, b...

Points: 1

Question	"If two gameObjects have colliders, but one of the gameObjects collider is set to ""is trigger"", what will happen when the two gameObjects meet?"
Answer	✅ They will collide and bouncy off each other.
	One gameObject will become the child of the other gameObject.
	They will pass through each other

17. Multiple Choice: One good way to organize gameObjects ...

Points: 1

Question	One good way to organize gameObjects in your hierarchy is through:
Answer	✅ Empty gameObjects
	Making prefabs
	Folders

18. Multiple Choice: "When you add a new component to a ga...

Points: 1

Question	"When you add a new component to a gameObject, derived from a prefab, what happens immediately:"
Answer	The gameObject changes and nothing happens to the prefab
	✅ The prefab is updated to reflect the change.
	"Other gameObjects, derived from the prefab, are updated"

19. Multiple Choice: "If we want to reference a gameObject...

Points: 1

Question	"If we want to reference a gameObject that the script is NOT attached to, we can do this in all the following ways except:"
Answer	Use GameObject.FindWithTag() to find the game object in the scene by its tag.
	✅ Use this.gameObject within the script.
	Use GameObject.Find() to find the game object in the scene by its name.
	Have the game object set through a public variable of type GameObject in the editor.

20. Multiple Choice: What type of class variables can you ...

Points: 1

Question	What type of class variables can you see in the Unity editor by default?
Answer	✅ Public
	Private

Protect

Static

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21. Multiple Choice: Time.deltaTime is   Points: 1

Question	Time.deltaTime is
Answer	The amount of time since Unity started playing the current scene in seconds.
	The current time.
	✅ The amount of time that gone by since the last frame update in seconds
	The universal time of air travel.

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22. Multiple Choice: "If you define a public GameObject va...   Points: 1

Question	"If you define a public GameObject variable in a script, but do not set it in the editor to reference a GameObject or Prefab, the variable will default to:"
Answer	empty
	the main camera
	nothing
	✅ null

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23. Multiple Choice: Script error messages and Debug.Log m...   Points: 1

Question	Script error messages and Debug.Log messages appear where in Unity?
Answer	The scene view
	The inspector
	The hierarchy
	✅ The console

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24. Multiple Choice: "In a Unity script, which function on...   Points: 1

Question	"In a Unity script, which function only runs once:"
Answer	OnTriggerEnter()
	Update()
	✅ Start()
	OnCollisionEnter()

25. Multiple Choice: Triggers can be used with the Animato...

Points: 1

Question	Triggers can be used with the Animator to:
Answer	✅ Transition from one animation state to another
	Have animation interact with physics.
	Change the entry animation state.
	None

26. Multiple Choice: "In the following code, what is the a...

Points: 1

Question	"In the following code, what is the alternative for 'on TriggerEnter' and setActive(False)

	void onTriggerEnter(Collider other)
	{
	if (other.GameObject.CompareTag(""Pick Up""))
	{
	other.GameObject.SetActive(false);
	
	// increment the count whenever we collect the sphere.
	count = count + 1;
	}
	} "

Answer	On ColliderEnter' Delete()
	✅ On ColliderEnter' Destroy()
	On Collider' Deactivate()
	On Collison' Deactivate()

27. Multiple Choice: "Kindly fill the below mentioned blan...

Points: 1

Question	"Kindly fill the below mentioned blanks with proper class and method names.

	using UnityEngine;
	using System.Collections;
	
	public class PlayerController : .... {
	
	private RigidBody rb;
	
	void ....()
	{
	rb = GetComponent ();
	}
	void ....()
	{
	float moveHorizontal = Input.GetAxis(""Horizontal"");
	float moveVertical = Input.GetAxis(""Vertical"");
	
	rb.AddForce(Vector3
	}

```
                                    }
                                    "
```

Answer	MonoBehaviour Fixedupdate Start
✅	MonoBehaviour Start FixedUpdate
	MonoBehaviour Start Update
	MonoBehaviour Start LateUpdate

☐ **28. Multiple Choice: Which game engine is best suited for ...**   Points: 1

Question	Which game engine is best suited for Game prototyping.
Answer	✅ Game Maker
	Blender
	Maya
	Unity

☐ **29. Multiple Choice: Which one is correct as per the game ...**   Points: 1

Question	Which one is correct as per the game engine perspective
Answer	Without game engine we cannot make games
	Game Loop is a integral part of game layer in Game engines
	✅ Game engine supports 2d/3d development.
	Game engines support 3d game development only.

☐ **30. Multiple Choice: What is that one thing which is not i...**   Points: 1

Question	What is that one thing which is not integral part fo the game engine layer
Answer	AI Control
	✅ Game Logic

31. Multiple Choice: Which code reports the distance betwe...

Points: 1

Question	Which code reports the distance between the current object and the reported Collider:

Answer

```
"using UnityEngine;

public class ExampleClass : MonoBehaviour
{
void FixedUpdate()
{
Vector3 fwd = transform.TransformDirection(Vector3.forward);

if (Physics.Raycast(transform.position, fwd, 10))
print("""There is something in front of the object!""");
}
}"
```

```
"using UnityEngine;

public class RaycastExample : MonoBehaviour
{
void FixedUpdate()
{
RaycastHit hit;

if (Physics.Raycast(transform.position, -Vector3.up, out hit, 100.0f))
print("""Found an object - distance: """ + hit.distance);
}
}"
```

✅
```
"using UnityEngine;

public class RaycastExample : MonoBehaviour
{
void FixedUpdate()
{
RaycastHit hit;

if (Physics.Raycast(transform.position, -Vector3.up, out hit))
print("""Found an object - distance: """ + hit.distance);
}
}"
```

```
"using UnityEngine;

public class ExampleClass : MonoBehaviour
{
void Update()
{
Ray ray = Camera.main.ScreenPointToRay(Input.mousePosition);
if (Physics.Raycast(ray, 100))
print("""Hit something!""");
}
}
"
```

32. Multiple Choice: "When IsKinematic property is enabled...

Points: 1

Question	"When IsKinematic property is enabled for the RigidBody, What exactly happens to game object"

Answer ✅ The object will not react to Forces and Collisions

The object will react to Forces and Collisions

Object is under influence of Gravity

Object will not behave to any of the mentioned options

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33. Multiple Choice: "At run time, a script can cause a n...

Points: 1

Question	"At run time, a script can cause a new object instance to be created at a certain location, how it can be achieved."
Answer	Through Components
	Through Dynamic gameobjects
	✅ Through Prefabs
	Not possible to instantiate

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34. Multiple Choice: Which one corresponds to movement in ...

Points: 1

Question	Which one corresponds to movement in only 'X' direction.
Answer	" movement = new Vector3(0.0f, 0.0f, moveVertical); "
	✅ " movement = new Vector3(moveHorizontal, 0.0f, 0.0f); "
	" movement = new Vector3(moveHorizontal, movementDiagonal, moveVertical); "
	" movement = new Vector3(0.0f, movementVertical, moveHorizontal); "

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35. Multiple Choice: Providing names to game object in uni...

Points: 1

Question	Providing names to game object in unity will
Answer	✅ help in designer/developer to understand functionality of that object
	will make it easy to destroy as it is certainly a enemy NPC
	will help in story development related to game object
	will help in marketing the game as lore to associated with it

36. Multiple Choice: A digital game must have this aspect

Points: 1

Question	A digital game must have this aspect
Answer	story
	✅ game play
	marketing
	multiplayer mode

37. Multiple Choice: Most FPS(First Person Shooters) incor...

Points: 1

Question	Most FPS(First Person Shooters) incorporates this mechanism
Answer	✅ Raycasting
	Delegates
	Sprites
	Networking

38. Multiple Choice: Using of Unity axis instead of key bi...

Points: 1

Question	Using of Unity axis instead of key bindings provide
Answer	smoother game play experience
	smooth less scene transition
	os platform independence
	✅ Hardware platform independence

39. Multiple Choice: in 3D geometry computing distance bet...

Points: 1

Question	in 3D geometry computing distance between two points include a relatively higher time consuming under-root operation in which the given scenario we can ignore this operation
Answer	while adding two distances
	while subtracting one distance from another
	while multiplying one distance with another
	✅ while comparing one distance from another one

40. Multiple Choice: Unreal engine is developed by

Points: 1

Question	Unreal engine is developed by
Answer	✅ Epic Games
	Ubisoft
	Dunia
	None

41. Multiple Choice: A destructor takes _____ arguments.

Points: 1

Question	A destructor takes _____ arguments.
Answer	one
	two
	three
	✅ No Argument

42. Multiple Choice: Separating input output from the comp...

Points: 1

Question	Separating input output from the computation logic is a good coding strategy.
Answer	✅ TRUE
	FALSE
	It is never possible to do so.
	The programmer should always hardcode

43. Multiple Choice: Writing i/o operation inside the clas...

Points: 1

Question	Writing i/o operation inside the classes is always a better strategy.
Answer	TRUE
	✅ FALSE

44. Multiple Choice: In C++ virtual keyword indicates that

Points: 1

Question	In C++ virtual keyword indicates that
Answer	a derived class has public access to a base class

more than one base class exists

✅ a base class should be used only once in inheritance

a derived class should have more than one base class constructed

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45. Multiple Choice: External program elements and pre-def...

Points: 1

Question	External program elements and pre-defined functions are accessed through
Answer	✅ Header files
	Classes
	Operators
	All of them

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46. Multiple Choice: "Mistakenly changing method's name as...

Points: 1

Question	"Mistakenly changing method's name as Main, rather than main, can be considered as"
Answer	an entry error
	a function error
	a logic error
	✅ a syntax error

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47. Multiple Choice: Operator function is also known as.

Points: 1

Question	Operator function is also known as.
Answer	function overloading
	✅ operator overloading
	member overloading
	none of the mentioned

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48. Multiple Choice: "If you declare two objects as Custom...

Points: 1

Question	"If you declare two objects as Customer firstCust, secondCust; which of the following must be true?"
Answer	Each object's nonstatic data members will be stored in the same memory location
	Each object will be stored in the same memory location

 Each object will have a unique memory address

You cannot declare two objects of the same class

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49. Multiple Choice: To make the LSB set bit zero in an in...

Question	To make the LSB set bit zero in an input integer x in c/c++ we can se the following expression?
Answer	x = x | (x-1)
	✅ x = x & (x-1)
	x = x | (x+1)
	x = x & (x+1)

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50. Multiple Choice: This programming language is best sui...

Question	This programming language is best suited for game development
Answer	C
	✅ C#
	Python
	Java

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51. True / False: A good place to add game music is typ...

Question	A good place to add game music is typically a gameObject that has the active audio listener component.
Answer	✅ True
	False

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52. True / False: The pixel dimensions dictate the phys...

Question	The pixel dimensions dictate the physical size of the display:
Answer	True
	✅ False

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53. True / False: You can have multiple collider compon...

Question	You can have multiple collider components on a single gameObject.
Answer	✅ True
	False

54. True / False: A collider must be in the same shape ...   Points: 1

Question	A collider must be in the same shape as the mesh of the gameObject.
Answer	True
	✅ False

55. True / False: A good place to add game music is typ...   Points: 1

Question	A good place to add game music is typically a gameObject that has the active audio listener component.
Answer	✅ True
	False

56. True / False: The class name of a script does NOT h...   Points: 1

Question	The class name of a script does NOT have to be the same as the filename of the script for the script to work properly.
Answer	True
	✅ False

57. True / False: One way to know if a particular type ...   Points: 1

Question	One way to know if a particular type of gameObject collided with another gameObject in a script is through the use of tagging.
Answer	✅ True
	False

58. True / False: "If you child a UI element to another...   Points: 1

Question	"If you child a UI element to another UI element, the anchoring settings will be in relationship to the parent element."
Answer	✅ True
	False

59. True / False: "Modern (non-legacy) Animations in Un...   Points: 1

Question	"Modern (non-legacy) Animations in Unity, require both an Animator Controller and Animation Clip(s)."
Answer	✅ True
	False

60. True / False: Is Unity a Open Source game engine   Points: 1

Question	Is Unity a Open Source game engine
Answer	True
	✅ False