**DESIGN OF AUGMENTED REALITY**

**AND VIRTUAL REALITY**

QUESTIONAIRE

**MCQ**

**1.**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_ keep track of position.  
a) Motion analysers  
b) Motion Trackers  
c) HMD  
d) SMD

**Answer -**b

**Explanation -**Motion trackers keep track of position. Other devices are like head trackers and body trackers.

**2.**  A term to describe the extent to which a user can modify form and content of a mediated environment.  
a) Vividness  
b) Richness  
c) Interactivity  
d) Mapping

**Answer -**c

**Explanation -**Interactivity is the extent to which a user can modify form and content of a mediated environment. It comprises speed and mapping.

**3.**  A type of VR environment in which subjects are visually isolated from the real environment.  
a) Immersive  
b) Semi immersive  
c) Non immersive  
d) Augmented

**Answer -**a

**Explanation -**In immersive VR, subjects are visually isolated from the real environment. A virtual scene is responding to the subjects actions.

**4.**  HMD stands for?  
a) Head Mounted Display  
b) Head Masked Display  
c) Head Made Display  
d) Head Mounted Detection

**Answer** a

**Explanation** It stands for Head Mounted Display. A kind of stereo display with two miniature screens and depth perception.

**5.**  In this type of VR environment, the three-dimensional scene is considered as a part of the physical environment.  
a) Immersive  
b) Semi immersive  
c) Non immersive  
d) Augmented

**Answer -**c

**Explanation** This happens in non-immersive Virtual environment. Also, the subjects do fully respond in the real environment.

**6.** What is the difference between AR and VR

a)There is no difference

b)Augmented reality blends virtual world and reality and virtual world is invented.

c)Virtual reality is only through wearable technology and augment reality is only through apps

d)Augmented reality is an educational tool and virtual reality is for leisure

**Answer** c

**Explanation** VR uses HMD to immerse a person and AR is an application on an android mobile

**7.** A field of technology that deals with a combination of real world and the data generated from computer.  
a) ML  
b) AI  
c) AR  
d) IoT

**Answer** c

**Explanation**  AR that is Augmented Reality is a field of technology that deals with a combination of real world and the data generated from computer.

**8.**  A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a display device, worn on head as a part of helmet that has a small display optic.  
a) HD  
b) MD  
c) HMD  
d) ARD

**Answer** c

**Explanation** HMD is the head-mounted display, worn on head as a part of helmet that has a small display optic. HTC Vive, Samsung GearVR are examples of HMDs available today.

**9.**  Technologies that allow the user to see the real world, with virtual objects composited in the real world.  
a) AR  
b) VR  
c) AI  
d) SR

**Answer** a

**Explanation** Augmented Reality (AR) allows a user to see real world, with virtual objects superimposed or composited with the real world

**10.** Technologies that completely involve a user inside a synthetic environment.  
a) AR  
b) VR  
c) AI  
d) ML

**Answer** b

**Explanation** The answer is VR or Virtual Reality. VR technologies are known for immersing a user inside a synthetic environment. While immersed, the user cannot see the real world around him.

**11.** Wearable computing device in the form of computerized eyeglasses.  
a) HMD  
b) Helmets  
c) Smart Glasses  
d) VR Glasses

**Answer** c

**Explanation** Smart glasses are also called as optical head mounted displays. (OHMD), it has the capability of reflecting projected images as well as allowing users to see through it.

**12.** SLAM stands for?  
a) Simultaneous localization and mapping  
b) System localization and mapping  
c) Simultaneous localization and maintenance  
d) System localization and maintenance

**Answer** a

**Explanation** SLAM is abbreviated for Simultaneous localization and mapping. It is a technique used by robots and autonomous vehicles to build a map within the unknown environment.

**13.** What does VR do?

a) Help access the internet

b) Stimulate environment of reality

c) Both of the above

d) None of the above

**Answer b**

**Explanation** It is a technology which stimulates environment closer to reality

**14.** Choose the right option for the following MCQ

(1 marks)

Statements:

1. In Augmented Reality(AR) a stimulated environment is created and the physical world is completely shut out.

2. In Virtua Reality(VR), images generated from a computer are projected onto real life objects or surroundings.

3. AR allows individuals to be present in the world and improves the experience using the camera of smart-phone or PC.

4. VR closes the world and improves the experience using the camera of smart phone or PC

Which of the following statements above is/ are correct?

a) 1 & 2 only

b) 3 & 4

c) 1,2 and 3

d) 4 only

**Answer** b

**Explanation** 3 and 4 are the definitions of AR and VR

**15.** Which definition best fits "Augmented Reality"?

(1 marks)

a) Technology that turns physical objects into digital objects

b) Technology that overlays digital information on top of real world items

c) Technology that puts users in a new digital environment

d) Technology that can achieve a human-level understanding of image

**Answer** b

**Explanation** Technology that overlays digital information on top of real world items is called AR.

**16.** Which one of the senses does not applied in Virtual Reality?

a) Sound

b) Vision

c) Touch

d) Taste

**Answer d**

**Explanation** VR supports everything but not Taste

**17.** Which of the following is a characteristic of Virtual Reality?

a) Simulates complete or partial real-world experience

b) Created by a computer

c) Stimulates senses like sight, hearing, and touch

d) All of the answers are correct.

**Answer d**

**Explanation** All the above options are a part of VR technology

**18.** Augmented reality (AR) provides features that are...

a) Visual, interactive, and 3D

b) Collaborative, virtual, and simulated

c) Computer-generated, sensory, and virtual

d) Sounds, sensory, and cost-efficient

**Answer a**

**Explanation** It is for sensory organ ,with 3D object augmented and interactive

**19.** A student scans an item in the real world and their phone tells them what it is. What is the technology being used?

a) Augmented

b) Fully-immersive virtual

c) Non-immersive virtual

d) Map

**Answer a**

**Explanation** It is an example of AR

**20. Examples of VR does not include**

a)Google Cardboard

b)Monopoly

c) Samsung Gear VR

d)Oculus Rift

**Answer b**

**Explanation** Monopoly does not include VR

**21.**Tool used for creatingvirtual environment is

a)Warehouse

b)Sketchup

c)CAD

d)Paint

**Answer b**

**Explanation** Sketchup helps in creating a virtual environment

**22. This game launched augmented reality (AR) into the spotlight in recent years...**

a)Super Mario

b)Pokemon

c)World of Warcraft

d)Fortnite

**Answer b**

**Explanation** Pokemon is a software which augments Pokemon on to real world

**23.  How do most people use AR currently?**

a)Their computers

b)Their phones

c)Their TV’s

d)AR Goggles

**Answer b**

**Explanation** No other dedicated device is required for AR other than a phone

**24.** Which is not a component of Unity Hub

a)Directional Light

b)Main Camera

c)3D Warehouse

d)Asset Store

**Answer c**

**Explanation** 3D Warehouse is a component of Sketchup

**25.**Which Tool in Sketchup helps to protrude surfaces

a)Move

b)Orbit

c)Eraser

d)Push and Pull

**Answer d**

**Explanation** Push andpull helps to extrude surfaces in and out

**TRUE OR FALSE**

**26.** In terms of image analysis, it is important to attend to primary level signs in visual codes, most obviously for examples of still photography.  
a) True  
b) False

**Answer** a

**Explanation** The statement is true. This approach categorizes the image analysis into three: position, treatment and content.

**27.** AR is interactive in real-time.  
a) True  
b) False

**Answer** a

**Explanation** The statement is true. Augmented Reality is the field of computer research that deals with the combination of real-world and computer generated data.

**28.** One of the biggest benefits of Augmented Reality application development is that it doesn't need any dedicated device for display?

a) false

b) true

**Answer b**

**Explanation** AR does not need any separate device any mobile device will be sufficient

**29.**VR is used in making clothing

a)True

b)False

**Answer b**

**Explanation** VR is just creation of virtual objects

**30.**3D Warehouse contains priorly ready environments

a)True

b)False

**Answer a**

**Explanation** 3D Warehouse is a place where environments /objects already created are present

**SUBJECTIVE**

**31.** AR is -----% virtual

**Answer** 75

**Explanation** It is 25 % real and 75 %virtual

**32.**  \_\_\_\_\_\_\_\_\_\_technology partially immerses the user into the action

**Answer AR**

**Explanation** AR partially immerses the user into action whereas VR completely immerses into new environment

**33**.\_\_\_\_\_\_ software helps add 3D object onto target image

**Answer** Vuforia

**Explanation** Vuforia software helps us to augment 3D objects

**34.**\_\_\_\_\_\_\_\_\_ tool in Sketchup helps us to view the object in all possible directions

**Answer** Orbit

**Explanation** Orbit helps us to view the 3D object in all angles

**35. \_\_\_\_\_\_\_\_\_\_\_\_invented the VR headset**

**Answer** Ivan Sutherland

**Explanation** Ivan Sutherland invented the VR headset