MID-TERM EXAMINATION PAPER

FACULTY	:	**COMPUTER SCIENCE AND MULTIMEDIA**
COURSE	:	**BACHELOR OF INFORMATION TECHNOLOGY (BIT)**
YEAR/ SEMESTER	:	**THIRD YEAR / SIXTH SEMESTER**
MODULE TITLE	:	**MULTIMEDIA SYSTEM**
DATE	:	**7TH MARCH 2022**
TIME ALLOWED	:	**3 HOURS**
START	:	**6:30 AM – 9:30 AM**
SET	:	**B**

Instruction to candidates

1. This question paper has THREE (3) Section

2. Answer **ALL** questions in Section A, MCQ.

3. Answer **5** questions in Section B, MSAQ

4. Answer **2** questions in Section C, MEQ

5. No scripts or answer sheets are to be taken out of the Examination Hall.

6. For Section A, answer in the OMR form provided.

Do not open this question paper until instructed.

(Candidates are required to give their answers in their own words as far as practicable)

SECTION A

Multiple Choice Questions (30*1=30)

1. The visual effect of ……. is due to a biological phenomenon known as persistence of vision
   a. Motion
   b. Vision
   c. Illusion
   d. None of above

2. GUI is a
   a. Operating system
   b. Hardware
   c. Language interpreter
   d. Software interface

3. When ……. bit integers are used to store the intensity values, the gray levels range from 0 to 255.
   a. 4
   b. 8
   c. 16
   d. 32

4. The first step in producing computer animation is …. process
   a. Input
   b. Output
   c. In between
   d. Middle

5. What is compression?
   a. To compress something by pressing it very hardly
   b. To minimize the time taken for a file to be downloaded
   c. To reduce the size of data to save space
   d. To convert one file to another

6. How many attributes control the characteristics of sound?
   a. 5
   b. 4
   c. 3
   d. 2

7. One component which contains nearly all GUI programs will have
   a. Frame
   b. Mouse
   c. Monitor
   d. Button

8. Another problem known as flicker occurs due to a …… fluctuation of brightness perception.
   a. Sporadic
   b. Periodic
   c. Aperiodic
   d. All of above

9. …… adds an extra dimension to an interface and can help the user understand complex information structures.
   a. Information
   b. Fact
   c. Color
   d. Paint

10. The ability of seeing the picture of the other person in a video conference is a major improvement over just hearing the ……
    a. Voice
    b. Speech
    c. Video
    d. Audio

11. Many web-based systems have interfaces based on ….. forms.
    a. Server
    b. Web
    c. Chrome
    d. Browser

12. Which compression loses data?

a.	Lossy compression	c.	Both A and B
b.	Lossless compression	d.	None of the above

13. The ……. should use terms and concepts which are drawn from the experience of the people who will make most use of the system.

a.	Interface	c.	Symbol
b.	Interact	d.	None of above

14. If frames are displayed on screen fast enough, we get an impression of

a.	signals.	c.	packets.
b.	motions.	d.	bits.

15. In Audio and Video Compression, each frame is divided into small grids, called picture elements or

a.	frame.	c.	pixels.
b.	packets.	d.	mega pixels.

16. Joint Photographic Experts Group (JPEG) is used to compress

a.	music.	c.	images.
b.	pictures.	d.	frames.

17. The expansion for MIDI is

a. Musical Instrument Digital Interface
b. Musical Instrument Data Interface
c. Musical Instructions Digital Interface
d. Musical Information Data Interface

18. Information presentation is concerned with ……. system information to system users.

a.	Representing	c.	Requesting
b.	Presenting	d.	None of above

19. There are _____ main elements in multimedia.

a.	4	c.	5
b.	3	d.	2

20. Visualization can reveal ……. between entities and trends in the data.

a.	Relationships	c.	Information
b.	Contrition	d.	Data

21. Repeated occurrence of the same character is called …..

a.	Word	c.	Bit
b.	Run	d.	Character

22. …… is a text which contains links to other texts.

a.	Hypermedia	c.	Mark up
b.	Hypertext	d.	None of above

23. …….. is the perception of sound by human beings?

a.	Pitch	c.	Amplitude
b.	Frequency	d.	Wave length

24. Kinematics refers to the position and velocity of….

a.	Direction	c.	Point
b.	Angle	d.	Illusion

25. GIF stands for

a. Graphic Interconnection File
b. Graphical Interface Format
c. Graphic Information Format
d. Graphic Interchange Format

26. A digital image is represented by a matrix of numeric values each representing a quantized intensity………
a. Quality   c. Value
b. Attribute   d. numerical

27. Multimedia _____ of elements grabs the viewer's attention and retains it.
a. Mixture   c. Control
b. Combination   d. Contribution

28. There are ___ types of video compressions.
a. 1   c. 3
b. 2   d. 4

29. A video consists of a sequence of
a. frames.   c. packets.
b. signals.   d. Slots

30. _____ are typical examples of static images.
a. Photographs   c. Jokes
b. File   d. Messages

SECTION B
Short Question Answer
Attempt any five (5) questions out of eight (8) questions   **(5*6=30)**

1. Define Multimedia. Explain the characteristics of multimedia.
2. Explain audio hardware.
3. Discuss about speech generation method.
4. Explain image and graphics with example.
5. Describe global structure of multimedia.
6. Differentiate between lossless and lossy compression.
7. Explain the applications of multimedia in telemedicine.
8. Discuss the abstraction levels of the programming of multimedia system.

SECTION C
Long Question Answer
Attempt any two (2) questions out of three (3) questions   **(2*20=40)**

1. What are the step of MPEG compression? Explain. Why do we need Huffman coding? Explain it with suitable example.
2. Explain computer animation as well as step required to produce computer animation in details. Elaborate video resolution with example. 10 seconds of stereo music at 44.1 KHz sampling rate having 16 bits' resolution then what will be the file size?
3. Explain with example of the structure guidelines for designing good user interface for multimedia system. Differentiate between image and graphics.

****BEST OF LUCK****