DIP–410 **DMS–2**

DIPLOMA EXAMINATION — JANUARY, 2015.

Multimedia Systems

COMPUTER GRAPHICS

Time : 3 hours Maximum marks : 75

PART A — (20 × 1 = 20 marks)

Answer ALL the questions.

1. HSV means
   (a) Hue, Saturation and Value
   (b) High, Saturation and Value
   (c) Hue, Signal and Value
   (d) None of the above

2. A device for specifying text input
   (a) STROKE (b) STRING
   (c) CHOICE (d) PICK

3. The eye cannot distinguish more than ———— gray levels in an image.
   (a) 20 (b) 50
   (c) 60 (d) 30

4. High quality raster graphics system have ———————— bits per pixel in the frame.

(a) 20 (b) 22

(c) 24 (d) 26

5. Raster is a synonym for the term

(a) Array (b) Matrix

(c) Model (d) All of above

6. Film animations require ———————— frames for each second in the animation sequence.

(a) 20 (b) 22

(c) 23 (d) 24

7. GUI stands for

(a) Graphical User Interface

(b) Graphical User Interchange

(c) Guide User Interface

(d) Guide User Interchange

8. Graphics terminals are refreshed at the rate of ———————— frame per seconds.

(a) 20 to 30 (b) 30 to 60

(c) 40 to 60 (d) 50 to 60

9. Input function are used for

(a) Control the data flow from these interactive devices

(b) Process the data flow from these interactive devices

(c) Both (a) and (b)

(d) None of these

10. The 3D Clipping Window boundaries to define ———————— region.

(a) 21 (b) 23

(c) 25 (d) 27

11. Morphing software

(a) Morph man (b) Morph buster

(c) Smart morph (d) All the above

12. A resolution of 640 by 480 can be used in the media wall to provide an overall resolution of ———————— static scene (or) animation.

(a) 3200 by 2400 (b) 3300 by 2500

(c) 3400 by 2400 (d) 3500 by 2500

13. Screen locations are referenced with

(a) Hexa decimal value

(b) Decimal value

(c) Integer value

(d) None of the above

14. General system consist of

(a) pull-down and pop-up menus

(b) icons

(c) pointing device

(d) all the above

15. Locator device for specifying

(a) A co-ordinate position

(b) Text input

(c) Scalar value

(d) Menu options

16. Primary colors are

(a) Cyan, Magenta, Yellow

(b) Red, Green, Blue

(c) Red, Green, Black

(d) None

17. The Depth buffer method is also called

(a) A Buffer method

(b) Z Buffer method

(c) BSP Tree method

(d) None of the above

18. Cohen-Sutherland Line clipping algorithm can compare quickly, it bit 1 is the sign of

(a) (Ymax – Y) (b) (Ymin – Y)

(c) (Y – Ymax) (d) (Y – Ymin)

19. DVST stands for

(a) Direct View Storage Tubes

(b) Duplicate View Storage Tubes

(c) Digital View Storage Tubes

(d) None of these

20. The projection is perpendicular to the view plane is called

(a) Oblique projection

(b) Orthographic parallel projection

(c) Isometric projection

(d) None

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

21. Explain Raster Scan Display processor.

22. Briefly explain polygon clipping.

23. Explain Back space detection method.

24. Explain Parametric representations.

25. Explain DDA Line drawing algorithm.

26. Explain various text clipping methods.

27. Explain window to view port mapping.

28. Explain Z-buffer method.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

29. What is Morphing? Explain briefly.

30. Explain the Parallel projection method.

31. Explain the Video display devices.

32. Write Cohen-Sutherland line clipping algorithm.

33. Write Bresenham line drawing algorithm.

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