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Paper Code: BCA-404S-B

A (SVSU:2023-24/R)

Enrollment No.

B.C.A

II YEAR/ IV SEMESTER EXAMINATION

Subject Name: Principle of Animation

Subject code- BCA -404-S-B

[Time : 3:00 Hours]

[Max. Marks : 70]

I. Objectives Question: Answer All Question [15×1=15]

1. In animation, a _____ represents a different level of depth on which you place your drawings.
a. Frame b. Canvas c. Gif d. Layer
2. A _____ is an animated file that contains multiple pictures that create movement in a loop.
a. Frame b. 3D Animation c. Gif d. Sprite
3. What function allows you to add a graphic to the library?
a. Break Apart b. Free Transform
c. Group d. Convert to Symbol
4. The series of frames in between the first and last frames in an action are drawn in a process called
a. Morphing b. Moving
c. tweening (in-betweens) d. compression
5. _____ is created when images or objects are manipulated to appear as though they are moving pictures.
a. Canvas b. Layer c. Animation d. Frame
6. Which of the following is true about storyboards?
a. To create the final idea for a production/film
b. To help plan an outline for a production/film
c. To show ideas for a front cover of the production/film
d. To show what the characters will say
7. A _____ is an individual picture or drawing in a sequence of slides that create animation.
a. Layer b. Sprite c. Canvas d. Frame
8. Which of these was "the first all-animated full-length feature film in English?"
a. Snow White b. Toy Story c. Star Wars d. Luxo Jr.
9. Which of these was "the first completely computer animated full-length feature film?"
a. Snow White b. Toy Story c. Star Wars d. Luxo Jr.

10. Which of these is the most common type of animation used today?
 - a. traditional (cel) animation
 - b. 2D animation
 - c. computer animation
 - d. motion graphics
11. Which of these is the older version of animation?
 - a. traditional (cel) animation
 - b. 2D animation
 - c. computer animation
 - d. motion graphics
12. Which of these short films had a character that is now used as Pixar's logo?
 - a. Steamboat Willie
 - b. The Adventures of André & Wally B.
 - c. Luxo Jr.
 - d. Gertie the Dinosaur
13. Which type of animation is drawn on separate pages and then flicked through?
 - a. Flipbook
 - b. Flash Animation
 - c. CGI Animation
 - d. Cel Animation
14. In Adobe Animate, what does it mean to create animation for changes in position on the Stage and for changes in size, color, or other attributes?
 - a. Motion Tweens
 - b. Tweening
 - c. Frames
 - d. Keyframe
15. When preparing a multimedia or animation project, what is the fourth and final step? This is when the animator decides if the project includes narration, dialog, and/or music.
 - a. Client Meeting
 - b. Develop the Story
 - c. Create a Storyboard
 - d. Plan for Audio

II Long Question : Answer Any Three [10×3=30]

1. Explain the Fundamentals of Timing Animation and Spacing Animation?
2. Explain different principle of animation?
3. Explain the history of animation?
4. What Is Overlap, Drag, and Follow-Through?

III. Short Question: Answer any Five [5×5=25]

1. What is the main purpose of key framing?
2. What is the purpose of the squash and stretch principle?
3. What does overlapping works in animation?
4. How is staging applied to animation? How is it similar to theatre?
5. How to Implement Timing into an Animation?
6. Describe follow through and overlapping action.
7. How does slow in and slow out create realism in animation?

Printing Pages : 2

Paper Code: BCA-401

A (SVSU:2023-24/R)

Enrollment No.

BCA

II YEAR/ IV SEMESTER EXAMINATION

Computer Communication Network

Subject Code- BCA-401

[Time : 3:00 Hours]

[Max. Marks : 70]

I. Objective Question: Answer All Question

[1x15= 15]

1. What is the full form of NIC?

- A. Network-ID card
- B. Network interface card
- C. National interface card
- D. New interface card

2. Which of the following primarily uses guided media?

- A. cellular telephone system
- B. local telephone system
- C. satellite communications
- D. radio broadcasting

3. The transmission node is defined in which layer?

- A. Physical layer
- B. Data link layer
- C. Transport layer
- D. Session layer

4. SMTP stands for.

- A. Simple mail transfer protocol
- B. Small mail transfer protocol
- C. Simple mass transfer protocol
- D. Small mail transfer protocol

5. Computer Network is

- A. Collection of hardware components and computers
- B. Interconnected by communication channels
- C. Sharing of resources and information
- D. All of the Above

6. Protocols are?

- A. Agreements on how communication components and DTE's are to communicate
- B. Logical communication channels for transferring data
- C. Physical communication channels used for transferring data
- D. None of above

7. How many types of cables are there?

- A. 5
- B. 4
- C. 3
- D. 2

8. Each IP packet must contain
 - A. Only Source address
 - B. Only Destination address
 - C. Source and Destination address
 - D. Source or Destination address
 9. What is the size of MAC Address?
 - A. 16-bits
 - B. 32-bits
 - C. 48-bits
 - D. 64-bits
 10. How many layers does OSI Reference Model has?
 - A. 4
 - B. 5
 - C. 6
 - D. 7
 11. Which of the following is the example of Half duplex mode?
 - A. Keyboard
 - B. Television
 - C. Mouse
 - D. Walkie talkie
 12. A set of rules that govern all aspects of information communication is called
 - A. Server
 - B. Internet
 - C. Protocol
 - D. OSI Model
 13. What is the use of Bridge in Network?
 - A. to connect LANs
 - B. to separate LANs
 - C. to control Network Speed
 - D. All of the above
 14. Which layer is not really a layer?
 - A. Host of the network
 - B. Network to host
 - C. Application to presentation
 - D. None
 15. What is OSI?
 - A. Open secure Intercommunication
 - B. Open system Intercommunication
 - C. Open shift Intercommunication
 - D. Open swing Intercommunication
- II. Long Question: Answer Any Three [10x3=30]
1. Explain the OSI reference model with neat diagram.
 2. Write about stop and wait protocol for flow control.
 3. Explain Ethernet protocol.
 4. What are the different types of classes used in IP?
 5. A bit stream 10011101 is transmitted using the standard CRC method. The generator polynomial is x^3+1 .
- III. Short Question: Answer Any Five [5x5=25]
1. Define protocol.
 2. What are the five important components of data communication?
 3. Define term parity check?
 4. What is token bus Standard?
 5. Why we use bridges in network?
 6. What is use the of Router?
 7. Define Fire walls?

Note: 1. Attempt all the questions as per given instructions.

1. Multiple Choice Questions (MCQs)**[01×15=15]**

- I** Which of the following statements define Computer Graphics?
(a) It refers to designing plans
(b) It means designing computers
(c) It refers to designing images
(d) None of the mentioned
- II** Bitmap is a collection of _____ that describes an image.
(a) pixels (b) algorithms (c) bits (d) colors
- III** Which of the following is a primary output device of a graphics system?
(a) Printer (b) Scanner
(c) Video monitor (d) Neither Scanner nor Video monitor
- IV** Among the given scientists/inventor who is known as the father of Computer Graphics?
(a) Nikola Tesla (b) Ivan Sutherland
(c) Ada Lovelace (d) Marie Curie
- V** Which of the following is a Computer Graphics Curve?
a) Bezier Curves b) Implicit Curves
c) Explicit Curves d) All of the above
- VI** _____ types of translation are present in computer graphics.
(a) 5 (b) 3 (c) 4 (d) 6
- VII** Which of the following is defined as the process of elimination of parts of a scene outside a window or a viewport?
(a) editing (b) cutting (c) plucking (d) clipping
- VIII** Which of the following operations can be used to zoom in or out around any axis on a three-dimensional object from its original position?
(a) Rotation (b) Shearing (c) Scaling (d) Translation
- IX** Viewing transformation is the process of mapping a world window in World Coordinates to the Viewport.
(a) False (b) True

- X** How many axes do 3D graphics consist of?
 (a) Two axes (b) Three axes
 (c) Five axes (d) One axis
- XI** Which of the following is the most commonly used boundary representation for a 3-dimensional graphics object?
 (a) Volume polygon (b) System polygon
 (c) Data polygon (d) Surface polygon
- XII** Which of the following algorithm is a faster method for calculating pixel positions?
 (a) Parallel line algorithm (b) Mid-point algorithm
 (c) DDA line algorithm (d) Bresenham's line algorithm
- XIII** The Cohen Sutherland algorithm is more efficient than the Liang-Barsky algorithm.
 (a) False (b) True
- XIV** Which of the following stores the picture information as a charge distribution behind the phosphor-coated screen?
 (a) Direct-view storage tube (b) Flat panel displays
 (c) 3D viewing device (d) Cathode ray tube
- XV** A translation is applied to an object by
 (a) Repositioning it along with straight line path
 (b) Repositioning it along with circular path
 (c) Only b (d) All of the mentioned

2. Answer in long (any three) [10×3=30]

- I** Define Bezier Curve with suitable examples.
- II** What do you mean by the Computer Graphics? Explain the Application Computer Graphics.
- III** Describe rotation transformation in 2-D.
- IV** Define the architecture of Random scan system.

3. Answer in short (any five) [5×5=25]

- I** Define window port.
- II** What do you mean by Reflection transformation?
- III** Define Flat panel display.
- IV** Define two dimensional.
- V** Describe Curves.
- VI** Write down the advantage of Bresenhaus Line algorithm.
- VII** Define the CD-ROM and DVD-Rom

Printing Pages :2

Paper Code: BCA-403

C (SVSU:2023-24/R)

Enrollment No.

COURSE NAME: BCA

IV SEMESTER/ II YEAR EXAMINATION

Subject Code: BCA-403

Subject Name: Object Oriented Programming & C++

[Time : 3:00 Hours]

[Max. Marks : 70]

Note : . Attempt all the questions as per given instructions.

Section A: Objectives Question: Answer All Questions. [1x15=15]

1. Which is more effective while calling the C++ functions?
a) call by object b) call by pointer c) call by value d) call by reference
2. What is meant by a polymorphism in C++?
a) class having only single form b) class having four forms
c) class having many forms d) class having two forms
3. What is abstract class in C++?
a) Any Class in C++ is an abstract class
b) Class from which any class is derived
c) Class specifically used as a base class with at least one virtual functions
d) Class specifically used as a base class with at least one pure virtual functions
4. What is virtual inheritance in C++?
a) C++ technique to enhance multiple inheritance
b) C++ technique to ensure that a private member of the base class can be accessed somehow
c) C++ technique to avoid multiple inheritances of classes
d) C++ technique to avoid multiple copies of the base class into children/derived class
5. Which of the following symbol is used to declare the preprocessor directives in C++?
a) \$ b) ^ c) # d) *
6. What is Inheritance in C++?
a) Deriving new classes from existing classes b) Overloading of classes
c) Classes with same names d) Wrapping of data into a single class
7. Which of the following type is provided by C++ but not C?
a) double b) float c) int d) boolean
8. Which of the following is the correct syntax of including a user defined header files in C++?
a) #include [userdefined] b) #include "userdefined"
c) #include <userdefined.h> d) #include <userdefined>
9. What happens if the following program is executed in C and C++?
#include <stdio.h>
int main(void)
{

```
int new = 5;
printf("%d", new);
}
```

- a) Error in C and successful execution in C++
- b) Error in both C and C++
- c) Error in C++ and successful execution in C
- d) A successful run in both C and C++

10. Which of the following is not a type of Constructor in C++?

- a) Default constructor
- b) Parameterized constructor
- c) Copy constructor
- d) Friend constructor

11. Which of the following correctly declares an array in C++?

- a) array{10};
- b) array array[10];
- c) int array;
- d) int array[10];

12. Which of the following is used for comments in C++?

- a) /* comment */
- b) // comment */
- c) // comment
- d) both // comment or /* comment */

13. Which of the following constructors are provided by the C++ compiler if not defined in a class?

- a) Copy constructor
- b) Default constructor
- c) Assignment constructor
- d) All of the mentioned

14. Pick the incorrect statement about inline functions in C++?

- a) Saves overhead of a return call from a function
- b) They are generally very large and complicated function
- c) These functions are inserted/substituted at the point of call
- d) They reduce function call overheads

15. Which of the following is correct about this pointer in C++?

- a) this pointer is passed as a hidden argument in all static variables of a class
- b) this pointer is passed as a hidden argument in all the functions of a class
- c) this pointer is passed as a hidden argument in all non-static functions of a class
- d) this pointer is passed as a hidden argument in all static functions of a class

Section B: Long Questions: Attempt any three [10×3=30]

1. What is Constructor? Explain the type of constructor with suitable example.
2. Explain overview of Inheritance in C++ with syntax and suitable example.
3. Explain the Object Oriented Concept in detail?
4. What is loop in C++? Explain it with syntax and suitable example.

Section C: Short Questions: Attempt any five [5×5=25]

1. Write a program to print a series with the help of do-while using class.
2. Explain array in C++ with suitable example.
3. What is the difference between C and C++?
4. Write a program to perform the execution of constructor.
5. Write down the difference between multiple and multilevel inheritance with suitable example.
6. Write a program to check the number is even or odd using class in C++.
7. What are the major pillars of Object Oriented Programming?