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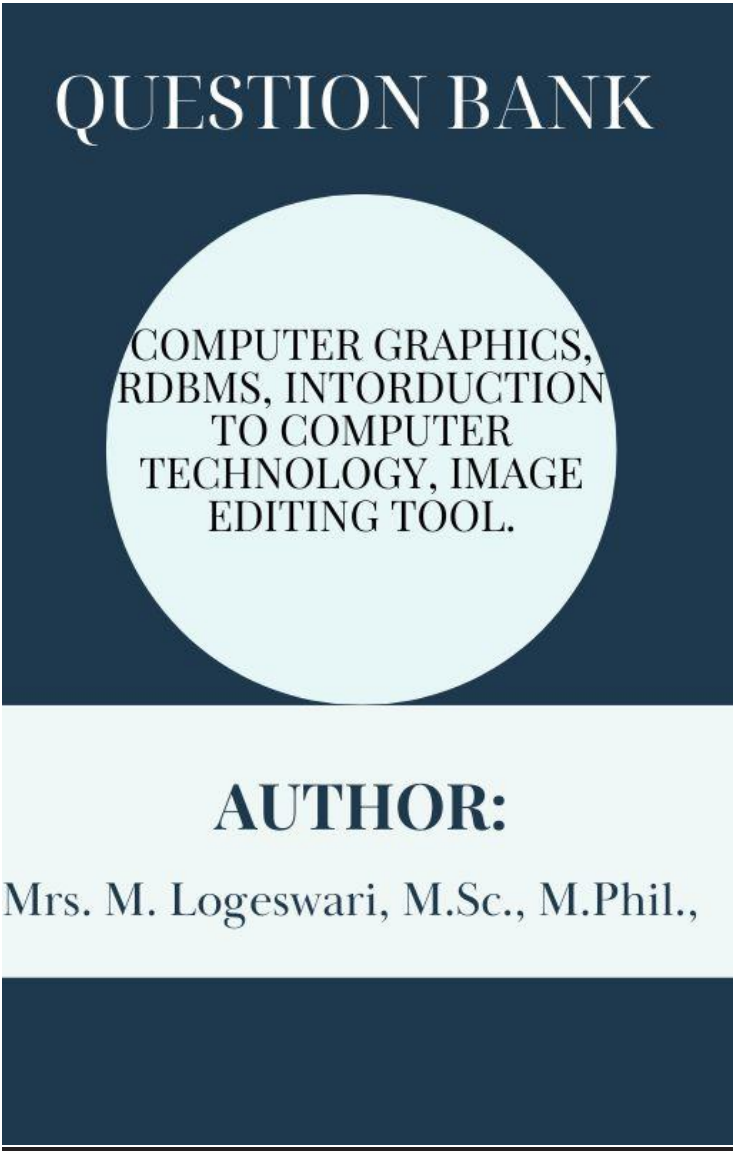

St. Joseph's College of Arts and Science For Women, Hosur

COMPUTER GRAPHICS

UNIT – I

MULTIPLE CHOICE QUESTIONS

1. Which of the following statements defines Computer Graphics?
a) It refers to designing plans
b) It means designing computers
c) It refers to designing
d) None of the mentioned

2. 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

3. Which of the following are the features of Computer Graphics?
a) Creation and deletion of images by computer only
b) Deletion and manipulation of graphical images by computer
c) Creation and manipulation of graphics by computer
d) Creation of artificial images by computer only

4. Which of the following is a Computer Graphics type?
a) Raster and Vector b) Raster and Scalar
c) Scalar only d) All of the above

5.Which of the following plane is used for 2D transformations?
a) Three-dimensional plane b)Two-dimensional plane
c) One-dimensional plane d)Four-dimensional Plane

6. Which of the following is a Computer Graphics Curve?
a) Bezier Curves b) Implicit Curves
c) Explicit Curves d)All of the above

7. Who is the first user of computer graphics?
a) William Fetter b) Ivan Edward Sutherland
c) Ada Lovelace d) Nicholas Williams

8. Which of the following is the purpose for using clipping in computer graphics?
a) copying b) zooming
c)adding graphics d) removing objects and lines

9. In a graphical system, an array of pixels in the picture are stored in which of the following locations?

a) Frame buffer b) Processor
c)Memory d) All of the mentioned

10. Curves in computer graphics is primarily used for which of the following function?

a) To draw different types of objects onto the screen
b) Zooming out a picture
c) Copying a picture
d) Zooming in a picture

11. _____ types of translation are present in computer graphics.

a) 5 b) 3
c) 4 d) 6

12. Bitmap is a collection of _____ that describes an image.

a) pixels b) algorithms
c) bits d) colors

13.Which of the following devices provides positional information to the graphics system?

a) Pointing devices
b) Both Input devices and Pointing devices
c) Output devices
d) Input devices

14. Which of the following is defined as the number of pixels stored in the frame buffer of a graphics system?

a) Resolution
b) Resolution
c) Depth
d) None of the mentioned

15. 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

16. Which of the following is used in graphics workstations as input devices to accept voice commands?

a) Speech recognizers
b) Touch panels
c) None of the mentioned
d) All of the mentioned

17.What is the use of voice system input?

a) To enter data
b) To initiate graphics operation and also to enter data

c) To initiate graphics operation
d) None of the mentioned

18. 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

19. Which of the following is known as the window opened on the raster graphics screen in which the image will be displayed?
a) Interface window b) World window
c)World co-ordinate system d)Screen co-ordinate system

20. 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

21. Among the following process, which process is known as the elimination of parts of a scene outside a window or a viewport?
a) editing b) plucking

c) cutting d) clipping

22. Viewing transformation is the process of mapping a world window in World Coordinates to the Viewport.
a) False b) True

23. Which of the following is defined as the drawing of number of copies of the same image in rows and columns across the interface window so that they cover the entire window?
a) Zooming b) Panning
c) Tiling d) Roaming

24. How many axes do 3D graphics consist of?
a) Two axes b) Three axes
c) Five axes d) One axis

25. Which of the following is the most commonly used boundary representation for a 3dimensional graphics object?
a) Volume polygon b) System polygon
c) Data polygon d) Surface polygon

ANSWERS

1.c, 2.b, 3.c, 4.a ,5.b, 6.d, 7.a, 8.d, 9.c, 10.a, 11.b, 12.a, 13.b, 14.d, 15.c, 16.a, 17.b, 18.d, 19.a, 20.c, 21.d, 22.b, 23.c, 24.b, 25.d.

FIVE MARKS

1. Explain about output primitives.
2. Describe in detail about line drawing algorithms.
3. Short notes on DDA algorithms.
4. Explain about Bressenhams algorithm.
5. Briefly explain loading frame buffer.
6. Short notes on line functions.
7. Explain attributes of output primitives.
8. Short notes on Area fill attributes.
9. Write equations on (i) circle generating algorithms (ii) ellipse generating algorithms (iii) straight line
10. Explain about frame buffer

TEN MARKS

1. Explain about points and lines.
2. Describe in detail about line drawing algorithm
3. Explain about bresenhams line algorithm.
4. Explain in detail about loading the frame buffer.

5. Describe in detail about circle generating algorithm 6. Describe in detail about ellipse generating algorithm
7. Explain about attributes of output primitives.
8. Short notes on (i) Areafill attributes (ii) character attributes.
9. Describe character attributes and bundled attributes
10. Explain about raster

UNIT – II

MULTIPLE CHOICE QUESTIONS:

1. Which of the following is the process of digitizing a given picture definition into a set of pixel-intensity for storage in the frame buffer?
a) Scan conversion b) True color system
c) Encoding d) Rasterization

2. Which of the following is commonly known as frame buffer on a black and white system with one bit per pixel?
a) Bitmap b) Pix map
c) Multi map d) All of the mentioned

3. 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

4. If the boundary is specified in a single color, and if the algorithm proceeds pixel by pixel until the boundary color is encountered is known as ____
a) Parallel curve algorithm b) Flood-fill algorithm
c) Scan-line fill algorithm d) Boundary-fill algorithm

5. Which of the following defines a pixel mask?
a) A string containing 1 and 0
b) A string containing 0 and 0
c) A string containing only 0's
d) A string containing only 1's

6. What does an aspect ratio mean?
a) Ratio of vertical points to horizontal points
b) Ratio of vertical points to horizontal points and horizontal points to vertical points
c) Number of pixels
d) Ratio of horizontal points to vertical points

7.Which of the following is a correct abbreviation of DDA algorithm?

a) Data differential analyzer
b) Direct differential analyzer
c) Digital difference analyzer
d) Digital differential analyzer

8.The Cohen-Sutherland algorithm divides the region into how many spaces?
a) 9 b) 8
c) 7 d) 6

9. The Cohen-Sutherland algorithm divides the region into how many spaces?
a) 9 b) 8
c) 7 d) 6

10. The Cohen Sutherland algorithm is more efficient than the Liang-Barsky algorithm.
a) False b) True

11. Which of the following is used for 3D positioning and modeling, animation, and other application?
a) Spac ball b) Trackball
c) Space ball d) All of the mentioned

12. Which of the following can be used to determine the position on the data tablet?

a) Either Signal strength or coded pulse
b) Coded pulse
c) Signal strength
d) Strip microphones

13. Which of the following type of perspective projection is also called "Angular Perspective"?
a) Four-Point
b) Three-point
c) One-point
d) Two-point

14. Which of the following type of perspective projection is used in drawings of railway lines?
a) Three-point
b)Two-point
c) One-point
d) Perspective projection is not used to draw railway lines

15. Which of the following representation represents a three-dimensional object?
a) Function
b) Point
c) Polygon
d) Equation

16. Which part of a picture is considered and saved in exterior clipping?
a) We don't consider the picture in exterior clipping
b) Picture which is outside the view window
c) Picture which is inside the view window
d) Picture which is on the edges of the view window

17. Which of the following clipping process handles the clipping of strings?
a) Text Clipping b) Exterior Clipping
c) Curve Clipping d) Shape Clipping

18. Which of the following algorithm can be used to clip a polygon in 3D space?
a) Vatti Clipping Algorithm
b) Polygon in 3D space cannot be clipped
c) Weiler Atherton Algorithm
d) Greiner Hormann Clipping Algorithm

19. How is the line path on the polygon area for a 45% line?
a) Vertical b) Horizontal
c) Centered d) None of the mentioned

20. Which of the following is defined as the sampling of object characteristics at a high resolution and displaying the result at a lower resolution?
a) Anti-aliasing b) Super-sampling or Post-filtering
c) Post-filtering d) Super-sampling

21. Which of the following is the correct full form of the NLN line clipping algorithm?

a) Nicholai-Lee-Nicholl algorithm
b) Nicholl-Liang-Nicholl algorithm
c) Nicholl-Lee-Nicholl algorithm
d) Nicholai-Liang-Nicholl algorithm

22. 'Skala' is an example of which of the following type of clipping?
a) polygon clipping b) line clipping
c) curve clipping d) point clipping

23. Which of the following is not a type of area sampling?
a) Point sampling b) Weighted area sampling
c) Anti-aliasing d) Unweighted area sampling

24. In which of the following method, fixed pattern of a line is used to generate characters?
a) Dot-matrix method b) Bitmap method
c) Stroke method d) Starbust method

25. 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

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ANSWERS

1.a, 2.a, 3.c, 4.d, 5.a, 6.b, 7.d, 8.a, 9.a, 10.a, 11.c, 12.a, 13.d, 14.c, 15.d, 16.b, 17.a, 18.c, 19.a, 20.b, 21.c, 22.b, 23.a, 24.d, 25.a.

FIVE MARKS

1. Explain about basic transformation of 2D?
2. Short notes on (i) reflection (ii) shear
3. Briefly explain composite transformation
4. What is viewing pipeline? Explain?
5. Explain about clipping operations.
6. Briefly explain text clipping.
7. Describe various text clipping
8. Explain about transformation
9. Write notes on clipping and clipping algorithm
10. Write short notes on exterior clipping

TEN MARKS

1. Describe in detail about 2D viewing functions?
2. Short note on (i) exterior clipping (ii) curve clipping
3. Explain about polygon clipping.

4. Explain about 2D window to view port coordinate transformation.
5. Explain in detail about point clipping.
6. Discuss about line clipping.
7. Explain about the viewing transformation
8. Discuss about matrix transformation
9. Explain about point and line clipping
10. Explain about rotation and translation

UNIT – III

MULTIPLE CHOICE QUESTIONS

1. Which of the following device is designed to minimize the background sound?
a) Joystick b) Data glove
c) Microphone d) Digitizers

2. The basic input device in GUI is
a) keyboard b) monitor
c) mouse d) all of these

3. Geometric transformation include

a) transition b) drawing
c) scaling d) none of the above

4. DVST stands for …
a) Direct Visual Storage Tube
b) Digital View Storing Table
c) Direct View Storage Tube
d) Digital View Storage Tube

5. The term 'raster' is used for …
a) array b) queue
c) model d) matrix

6. Graphics is defined as …
a) photographs b) simulations
c) drawing d) all of these

7. What is the purpose of display card?
a) sending graphics data to output unit
b) receiving graphics data to input unit
c) sending graphics data from output unit
d) all of these

8. Sutherland Hodgeman algorithm is applied on …
a) line segment b) concave polygon
c) smooth curves d) convex polygon

9. Pixels are arranged in
a) three dimensional grid b) two-dimensional grid
c) one dimensional grid d) none of these

10. Which controller is used to read each successive byte of data from frame buffer?
a) data controller b) display controller
c) digital controller d) design controller

11. Each pixel's brightness is …
a) transitive b) compatible
c) incompatible d) none of these

12. RGB models are used for
a) printing b) texting
c) computer display d) window display

13.For black and white images, black pixels are identified by _____ in the frame buffer and white pixels represented by?
a) One and Zero b) Zero and One
c) Both a & b d) None of these

14.Select the byte for 16*16 array of black and white pixels?

a) 64 bytes b) 128 bytes
c) 32 bytes d) 96 bytes

15.The display controller change 0s and 1s into?

a) TV monitor b) Electronics signal
c) Video signal d) None of these

16.Select the way in which The image can be transmitted to the display?

a) Line b) Point
c) Segment d) None of these

17.which area of computer that is selected by an application is known as

a) Display b) View port
c) Window d) None of these

18.The movement of various attributes of image would make the image dynamic and like a dynamic effect is also known as?

a) Picture b) Painting
c) Animation d) None of these

19. Polygon consists of _____ types?

a) one b) two
c) three d) four

20.We use LCD commonly in …
a) Laptops b) mobiles
c) cameras d) none of these

21. We can apply rubber band to which type of objects?
a) scalar b) scale
c) vector d) all of these

22.A wireless mouse works on the basis of …
a) infra radiation b) infra grey radiations
c) infra red radiations d) infra blue radiations

23. In concave polygon, the object appears as …
a) half b) partial
c) full d) none of these

24.GKS is abbreviated as …
a) Generic kernel system
b) Graphics kernel standarization
c) Graphics kernel system
d) none of these

25.Which transformation is required for slanting the shape of an object is …

a) shear b) scaling

c) reflection d) none of these

ANSWERS

1.c, 2.c, 3.c, 4.c, 5.d, 6.d, 7.a,8.d, 9.b, 10.c, 11.c, 12.c, 13.a, 14.c, 15.c, 16.b, 17.c, 18.c, 19.b, 20.a, 21.a, 22.c, 23.b, 24.c, 25.a.

FIVE MARKS

1. Explain about 3D concept? Briefly.
2. Explain about 3D graphics packages.
3. What are quadric surfaces? Explain?
4. What is 3D geometric modelling? Briefly explain.
5. Explain about 3D transformation function?
6. What is a polygon surface? Explain?
7. Write notes on shears
8. Describe blobby object
9. Write short note on 3D transformation
10. Describe curved lines

TEN MARKS

1. Discuss in detail about polygon surfaces?
2. Short notes on (i) quadric surfaces (ii) super quadrics
3. Explain about blobby object?
4. Discuss in detail about spline representation.
5. Short notes on (i) rotation (ii) translation
6. Explain about composite transformation.
7. Describe in detail about modelling and coordinate transformation.
8. Explain about 3D package
9. Discuss about the projection
10. Discuss about scaling

UNIT – IV

MULTIPLE CHOICE QUESTIONS

1.The major constraints include …
a) vertical and left alignment
b) vertical and horizontal alignment
c) horizontal alignment
d) horizontal and right alignment

2. Today display systems are used in …

a) CUST b) SUST

c) DUST d) TUST

3.Relative and absolute are the types of

a) polygon b) coordinates

c) vertices d) none of these

4. A type of window which is invoked by an application when multiple inputs are required to specify the desired action is termed as …

a) panel b) menu

c) dialog box d) none of these

5.Which graphics application provides a proper dialogue box to help the user to solve a problem?

a) MS Paint b) MS Excel

c)MS Word d) none of these

6.Tweens are a characteristic of which type of animation?

a) AVI animation b) vector animation

c) scalar animation d) none of these

7. Active matrix display based on …

a) thin film transistor b) mirror
c) CRT d) none of these

8. Which type of animations uses stop motion techniques?
a) production b) HTML
c) frame-based animation d) all of these

9. Vector animation is also named as …
a) vector animation b) alpha animation
c) path animation d) down animation

10.What does CAD stand for?
a) Computer Action Data
b) Commonly Available Data
c) Computer-Aided Design
d) Computer Aided Drawing

11. Graphics software packages are used for …
a) text b) pictures
c) design d) all of these

12. Text or graphic movements are classified into?
a) animation b) styles
c) designs d) all of these

13.Animations having sound is …

a) audio b) graphics

c) video d) animation video

14. The refresh rate is basically measured in ?

a) kilo hertz b) mega hertz

c) hertz d) giga hertz

15. Display processor is also named as …

a) display coprocessor b) graphics

c) editor processor d) all of these

16. Which device is required for specify scalar values?

a) scalator b) specificator

c) valuator d) all of these

17.On screen, each screen point is referred to as _____

a) persistence b) resolution

c) pixel d) dot

18. He rules mentioned above are applicable in the case of:

a) Morphing b) Animation

c) Rendering d) All of the above

19._____ is a technique that is used to approximate the halftones without the reduction of spatial resolution.

a) Dithering b) Error diffusion
c) Halftoning d) None of the above

20.Out of the following, which one is NOT the basic primitive of the GKS (Graphics Kernel System)?

a) POLYMARKER b) FILL AREA
c) POLYDRAW d) POLYLINE

21. In the images, redundancy stems from:

a) pixel quantization b) image size
c) pixel decorrelation d) pixel correlation

22**.** Consider a window that is bounded by these lines: y = 0; x = 0; y = 3 and x = 5. If clipped against this window, the line segment joining the (-1, 0) and (4, 5) will connect the points will be:

a) (0, 1) and (3, 2) b) (0, 1) and (4, 3)
c) (0, 1) and (3, 3) d) (0, 1) and (2, 3)

23**.** The three primary colors define which of these color models?

a) CMY and HSV b) RGB and HSV
c) RGB and CMY d) HSV and HLS

24. A raster grid has XY-axes in the positive upward Y-direction and the positive X-direction with Xmin = –5, Xmax = 10, Ymin = 6, and Ymax = 11. The address of the memory pixel that has the location (5, 4) in raster grid would be (assuming the base address 1):

a) 161 b) 160

c) 151 d) 150

25. We rotate a point P (2, 5) by 60° about a pivot point (1, 2). The new transformed point P' would be:

a) (– 4, 1) b) (1, – 4)

c) (-1, 4) d) (1, 4)

ANSWERS

1.b, 2.c, 3.b, 4.c, 5.a, 6.b, 7.a, 8.c, 9.c, 10.c, 11.b, 12.a, 13.c, 14.c, 15.a, 16.c, 17.c, 18.b, 19.a, 20.c, 21.d, 22.d, 23.c, 24.a, 25.c.

FIVE MARKS

1. Explain about classification of visible surface detection algorithms.

2. Short notes on (i) backface detection (ii) depth buffer method
3. Briefly explain BSP tree method.
4. Shortly explain octree methods.
5. Explain about detection functions.
6. Briefly explain curved surfaces.
7. Explain wireframe methods
8. Write notes on Area-subdivision method
9. Describe buffer method.
10. Write short note on BSP tree

TEN MARKS

1. Discuss in detail about visible surface detection method?
2. Describe in detail about backface detection.
3. Explain in detail about BSP method.
4. Short notes on (i) scan line method (ii) depth sorting method
5. Explain about subdivision method.
6. Explain about wireframe methods.
7. Discuss about detection function.
8. Explain about octree methods
9. Discuss about scan line method
10. Explain the functions of depth sorting method

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UNIT – V

MULTIPLE CHOICE QUESTIONS

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1. Which of these is utilised for the process of boundary representation of the image objects?
a) Run length coding b) Chain codes
c) Projections d) Quad Tree

2. Out of the following steps, which one is/are not required for the conversion of analog to digital?
(I) Sensing (II) Conversion (III) Amplification
(IV) Conditioning (V) Quantization
a) and (I) b) and (IV)
c) (I), (I) and (V) d) None of the above

3.. _____ is the refresh rate, and above it, a picture would stop flickering to fuses into a steady image:
a) Critically diffused frequency
b) Critical fusion frequency
c) Current frequency fusion
d) Crucial fusion frequency

4. If we can distinguish 40 black lines that are interleaved with the 40 white lines across one inch, then the resolution would be _____ per inch:
a) 40 lines b) 1600 lines

c) 80 line-pairs d) 40 line-pairs

5. The images are a very large data collection. The memory size required for a 1024×1024 image where the color of every pixel is represented by n-bit numbers in an 8-bit machine would be _____ MB.

a) 1024 b) (1024 × 1024) / 8
c) n / 8 d) n × 8

6. An object's color is determined largely by the diffuse reflection coefficient. Here, if Kd = (0.8, 0.4, 0), so if the light used is magenta and blue, then the color of the object would be:

a) Black and Red b) Black and White
c) Red and Blue d) White and Red

7. Which of these is a clustering technique permitting a convenient graphical display?

a) Agglomerative clustering
b) Hierarchical clustering
c) Probabilistic model-based clustering
d) Partition-based clustering

8**.** Which of these is a technique used for the production of color displays with some random CRT scan monitors?

a) Gas-Discharge b) Direct View Storage
c) Shadow Mask d) Beam Penetration

9. The raster scan display systems that have 24 bits/pixel and a 1024×1024 screen resolution require a frame buffer size of:
a) 24 MegaBytes b) 8 MegaBytes
c) 3 MegaBytes d) 1 MegaByte

10. Consider a graphic display system that has 480 pixels high, 640 pixels wide, and 1 bit of color depth frame buffer. In case the access time for every pixel is 200 nanoseconds on average, then the approximate refresh rate of such a frame buffer would be _____ frames per second.
a) 23 b) 21
c) 19 d) 16

11. Which of these is NOT a component of the Memory tube display?
a) Liquid Crystal b) Ground
c) Collector d) Flooding gun

12. In the case of Oblique Projections, which of these is NOT true?

a) The plane of projection is always perpendicular to the projectors.
b) These are exclusively used for pictorial purposes instead of any formal working drawings.
c) All the Parallel lines in the space appear parallel on the projected final image.
d) The Parallel projection rays aren't perpendicular to a viewing plane.

13. How many types of video compressions?
a) 2 b) 3
c) 4 d) 5

14. Which image files are a lossy format?
a) GIF b) MPEG
c) JPEG d) PNG

15. .How many step process for creating a 3D animation?
a) 1 b) 2
c) 3 d) 4

16. Which file creates a perfect reproduction of the original images?

a) Shockwave b) Nx View
c) JPG d) GIF

17. Which of the following is a technique to blend two or more images to form a new image?
a) Modeling b) Morphing
c) Animating d) Warping

18. Expand JPEG
a) Joint Photo Experts Gross
b) Joint Photographic Experts Gross
c) Joint Photographic Experts Group
d) Joint Photographic Expression Group

19. Expand GIF?
a) Graphic Information File
b) Graphic Interchange Format
c) Graphic Information Format
d) Graphic Interchange File

20. Which compressions provide some loss of quality?
a) Lossy b) Loss less
c) Cel based d) Object based

21. Which of the following is a computer based presentation technique?

a) Slides b) Tutorial
c) Mutimedia d) Data processing

22. What does MMF stand for
a) Mutimedia System
b) Mutimedia Messaging System
c) Mutimedia Messaging Services
d) Multimedia Services

23. Types of computer graphics are
a) Vector and raster b) Scalar and raster
c) Vector and scalar d) None of these

24.Vector graphics is composed of?
a) Pixels b) Paths Vector and raster
c) Palette d) None of these

25.Raster graphics are composed of
a) Pixels b) Paths
c) Palette d) None of these

ANSWERS

1.b, 2.d, 3.b, 4.d, 5.c, 6.a, 7.b, 8.d, 9.c, 10.d, 11.a, 12.a, 13.b, 14.c, 15.c, 16.d, 17.b, 18.c, 19.b, 20.c, 21.b, 22.a, 23.a, 24.b, 25.a

FIVE MARKS

1. Explain about properties of light.
2. Briefly explain chromaticity diagram.
3. Explain about CIE chromaticity diagram.
4. Short notes on (i) intuitive colour concepts (ii) RGB colour model.
5. Briefly explain HSV colour model.
6. What are the applications of colour selection?
7. Write about RGB colour model
8. Write notes on colour model
9. Write short notes on chromaticity
10. Describe dominant frequency

TEN MARKS

1. Discuss in detail about properties of light.
2. Explain about illumination models.
3. Discuss in detail about intuitive colour concept.
4. Explain conversion between HSV and RGB models.
5. Explain about standard primaries of the chromaticity.
6. Explain about worn model
7. Explain about basic illumination model
8. Discuss about sharing model
9. Explain the intuitive colour model
10. Write notes on the light source

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RELATIONAL DATABASE MANAGEMENT SYSTEM

UNIT-I

MULTIPLE CHOICE QUESTIONS

1.What is the primary purpose of a Database Management System (DBMS)?
a) Managing files in the operating system
b) Creating graphical user interfaces
c) Storing and managing structured data
d) Generating web content

2.In comparison to a File System, a DBMS offers better:
a) Performance for small datasets
b) Data redundancy
c) Data integrity and security
d) Compatibility with all file formats

3.Which term refers to a representation of data's structure, relationships, and constraints?
a) Database language b) Data model
c) Database administrator d) File system

4.What is the purpose of a primary key in a database table?
a) It ensures the uniqueness of rows in the table.
b) It defines the table's structure.
c) It stores large binary data.
d) It's used for creating backup copies of the database.

5.Which diagram is used to represent the conceptual schema of a database?
a) Flowchart
b) Entity-Relationship (ER) diagram
c) Bar chart
d) Pie chart

6.What is a weak entity in an ER diagram?
a) An entity with a strong relationship
b) An entity that cannot exist without a related entity
c) An entity with a unique key
d) An entity with multiple attributes

7.UML stands for:
a) Unified Modeling Language
b) Uniform Model Language
c) Universal Management Language
d) Unified Mapping Language

8.Relational algebra is used for:
a) Creating ER diagrams
b) Storing unstructured data
c) Querying relational databases
d) Designing network topologies

9.What does the term "view" represent in a database context?
a) A graphical representation of data relationships
b) A virtual table derived from one or more base tables
c) A backup copy of the database
d) A type of database constraint

10.Which component of a database system ensures the atomicity and durability of transactions?
a) Data Model b) Query Optimizer
c) Transaction Manager d) User Interface

11.The structure of a Relational Database is based on:
a) Graphs b) Trees
c) Tables d) Documents

12.Which of the following is not a property of a relation in the Relational Model?

a) Uniqueness of rows b) Ordering of rows
c) Atomic values in cells d) No duplicate rows

13.What is the purpose of the Relational Algebra in a DBMS?
a) Defining database constraints
b) Creating graphical representations of data
c) Querying and manipulating data
d) Storing unstructured data

14.Which language is used for defining and manipulating data in a Relational Database?
a) HTML b) SQL
c) Java d) Python

15.A weak entity in an ER diagram is characterized by:
a) Having a composite key
b) Having a strong relationship with other entities
c) Being stored in a separate file
d) Having no attributes

16.What is the purpose of a foreign key in a relational database?
a) To enforce referential integrity
b) To provide a primary key for a table
c) To store large binary data

d) To create a backup of the database

17.Which type of key uniquely identifies an entity within its own entity set?
a) Primary key b) Foreign key
c) Candidate key d) Super key

18.Which component of a database system manages the physical storage of data on disk?
a) Query optimizer b) Storage manager
c) Transaction manager d) Schema definition

19.Which type of data model focuses on the organization of data and relationships in a database?
a) Physical data model b) Logical data model
c) Conceptual data model d) External data model

20.In the context of databases, what does the term "transaction" refer to?
a) A database query
b) A piece of data
c) A sequence of operations treated as a single unit
d) A user's login session

21.Which level of data abstraction describes how the data is stored physically?

a) Logical level b) External level

c) Physical level d) Conceptual level

22.What is normalization in the context of database design?

a) Adding redundancy to improve performance

b) Combining multiple tables into one

c) Eliminating data duplication and ensuring data integrity

d) Converting unstructured data into structured data

23.Which database user is responsible for defining the database schema?

a) End user b)Application programmer

c) Database administrator d) System analyst

24.Which term refers to the property that ensures each value in a column is of the same data type?

a) Data consistency b) Data integrity

c) Data redundancy d) Data atomicity

25.In the context of database systems, ACID properties ensure:

a) Fast query performance

b) Data redundancy

c) Data isolation and consistency in transactions
d) Compatibility with various file formats

ANSWERS

1.c, 2.c, 3.b, 4.a, 5.b, 6.b, 7.a, 8.c, 9.b, 10.c, 11.c, 12.b, 13.c, 14.b, 15.a, 16.a, 17.a, 18.b, 19.c, 20.c, 21.c, 22.c, 23.c, 24.a, 25.c.

FIVE MARK QUESTION

1. Explain the difference between a DBMS and a File System.
2. Highlight the advantages of using a DBMS over a File System.
3. Define an Entity-Relationship (ER) diagram.
4. Illustrate the components of an ER diagram with an example.
5. Describe the concept of a weak entity in an ER diagram. Provide an example scenario where a weak entity would be applicable.
6. What is the purpose of UML in the context of database design?
7. How can UML diagrams help in visualizing and designing a database system?

8. Explain the basic structure of the Relational Model. Discuss the key components that make up a relation.
9. Define and differentiate between a primary key, a candidate key, and a foreign key.
10. How do these keys contribute to maintaining data integrity in a relational database?
11. Discuss the properties of a relation that adhere to the Codd's relational model rules.
12. Explain why each property is important in maintaining data consistency.
13. What is Relational Algebra? Describe its role in performing operations on relational databases. Provide examples of commonly used relational algebra operations.
14. Explain the purpose of views in a relational database.
15. How do views contribute to data security, data abstraction, and simplifying complex queries?
16. Discuss the importance of the ACID properties in the context of transaction management.
17. Explain each property and how it ensures reliable database transactions.

TEN-MARK QUESTIONS

1. Describe the key responsibilities of a database administrator (DBA) in a database management system.
2. How does the DBA contribute to maintaining data security, integrity, and performance?
3. Compare and contrast the Entity-Relationship (ER) model and the Relational model in terms of their concepts, components, and advantages.
4. Explain the process of normalization in database design. Provide a step-by-step explanation of how normalization reduces data redundancy and ensures data integrity. Illustrate with an example.
5. Define and elaborate on the concept of a transaction in a database system.
6. Discuss the ACID properties and explain why they are essential for reliable transaction processing.
7. Discuss the role of indexes in a relational database
8. Explain how indexes enhance query performance and under what circumstances they might have downsides.
9. Design an ER diagram for a university management system that includes entities such as Student, Course, Professor, and Department.

Define the relationships between these entities and specify attributes.

10. Explain the concept of data integrity constraints in a relational database. Provide examples of different types of constraints such as primary key, foreign key, unique, and check constraints.
11. Describe the different levels of data abstraction in a database system: conceptual, logical, and physical. Explain the importance of each level and how they are connected.
12. Discuss the challenges and benefits of denormalization in database design. Provide scenarios where denormalization might be appropriate and where it should be avoided.
13. Explore the concept of concurrency control in database systems. Explain why concurrency control is necessary, the challenges it addresses, and common techniques used to achieve it.

UNIT-II

MULTIPLE CHOICE QUESTIONS

1.What is the purpose of using views in a database?
a) To store large binary data
b) To define primary keys
c) To create backups
d) To provide an abstracted and customized representation of data

2.Which SQL statement is used to modify existing data in a database?
a) SELECT b) ALTER
c) UPDATE d) INSERT

3.Which SQL statement is used to define the structure of a database, including tables and constraints?
a) INSERT b) CREATE
c) ALTER d) UPDATE

4.What does DDL stand for in SQL?
a) Data Description Language
b) Data Definition Language
c) Data Display Language
d) Database Design Language

5.What is the purpose of the GROUP BY clause in SQL?
a) To perform set operations
b) To order the result set
c) To filter rows in a table
d) To group rows based on specified columns

6.Which SQL statement is used to remove a table from a database?
a) DELETE b) DROP
c) TRUNCATE d) REMOVE

7.In SQL, which aggregate function calculates the average of a set of values?
a) SUM b) COUNT
c) AVG d) MAX

8.What is the purpose of the HAVING clause in SQL?
a) To filter rows in a table
b) To order the result set
c) To perform set operations
d) To filter aggregated results

9.Which SQL operation is used to combine the results of two or more SELECT statements, removing duplicate rows?
a) UNION b) JOIN
c) INTERSECT d) EXCEPT

10.Which SQL statement is used to add new data to a database?
a) CREATE b) INSERT
c) ADD d) MODIFY

11.What is the purpose of the ORDER BY clause in SQL?
a) To filter rows in a table
b) To order the result set
c) To group rows based on specified columns
d) To perform set operations

12.Which SQL function is used to find the highest value in a column?

a) AVG b) MIN
c) MAX d) SUM

13.What is the purpose of the DISTINCT keyword in a SELECT statement?
a) It filters rows based on a condition.
b) It groups rows based on a specified column.
c) It orders the result set.
d) It eliminates duplicate rows from the result set.

14.In SQL, what does the DELETE statement do?
a) Removes a table from the database.
b) Removes a column from a table.
c) Removes data from a table.
d) Adds new data to a table.

15.Which SQL statement is used to retrieve data from a database?
a) ADD b) SELECT
c) MODIFY d) UPDATE

16.In SQL, which operator is used to combine the results of two SELECT statements and removes duplicate rows?
a) UNION b) JOIN
c) INTERSECT d) EXCEPT

17.What does the SQL function SUM() do?
a) Finds the maximum value in a column
b) Counts the number of rows in a table
c) Calculates the total of numeric values in a column
d) Retrieves distinct values from a column

18.What is the purpose of the ORDER BY clause in SQL?
a) To filter rows in a table
b) To group rows based on specified columns
c) To order the result set
d) To perform set operations

19.Which SQL statement is used to add new rows to an existing table?
a) INSERT b) CREATE
c) UPDATE d) DELETE

20.SQL stands for:
a) Structured Query Language
b) Sequential Query Language
c) Simple Query Language
d) Standard Query Language

21.Which SQL operation is used to combine rows from two or more tables?
a) JOIN b) GROUP BY
c) ORDER BY d) SELECT

22.The COUNT() function in SQL is used for:
a) Adding up numeric values
b) Counting the number of rows
c) Finding the average of values
d) Grouping data

23.In SQL, NULL represents:
a) blank value b) A zero value
c) A missing or unknown value d) An error

24.Which SQL keyword is used to retrieve data from multiple tables?
a) JOIN b) INSERT
c) UPDATE d) DELETE

25.A subquery that is used in the WHERE clause of the outer query is called:
a) Nested subquery b) Inner subquery
c) Outer subquery d) Correlated subquery

ANSWERS

1.d, 2.c, 3.b, 4.b, 5.d, 6.b, 7.c, 8.d, 9.a, 10.b, 11.b, 12.c, 13.d, 14.c,15.b, 16.a, 17.c, 18.c, 19.a, 20.a, 21.a, 22.b, 23.c, 24.a, 25.a.

FIVE-MARK QUESTIONS

1. Explain the basic structure of an SQL query. Provide an example of a SELECT statement, highlighting the key components.
2. Describe the different types of JOIN operations in SQL, including INNER JOIN, LEFT JOIN, RIGHT JOIN, and FULL JOIN. Provide examples for each type.
3. Discuss the concept of aggregate functions in SQL. Provide examples of commonly used aggregate functions and explain their purposes.
4. What are subqueries in SQL? Explain the difference between correlated and noncorrelated subqueries. Provide examples of each type.
5. Define views in SQL. How can views be used to simplify complex queries and enhance data security? Provide an example of creating and using a view.
6. Explain the concept of data integrity in the context of a relational database. How does

enforcing constraints such as primary keys, foreign keys, and check constraints contribute to maintaining data integrity?

7. Discuss the significance of indexes in SQL databases. Compare and contrast clustered and non-clustered indexes, and provide examples of situations where each type would be beneficial.
8. Describe the purpose and use of the GROUP BY clause in SQL queries. Provide an example of a query that uses GROUP BY to retrieve aggregated data.
9. Explain the differences between the INNER JOIN and LEFT JOIN operations in SQL. Provide a scenario where each type of join is applicable and illustrate the resulting dataset.
10. Discuss the benefits and drawbacks of using views in a database system. Explain how views can be used to simplify complex queries, enhance data security, and provide a logical data abstraction layer.

TEN-MARK QUESTIONS

1. Explain the purpose of Data Definition Language (DDL) in SQL.

2. Provide examples of DDL statements such as CREATE, ALTER, and DROP, and discuss their significance in database management.
3. Discuss the role of Embedded SQL in application development.
4. How does Embedded SQL allow for the integration of SQL statements within programming languages? Provide an example of Embedded SQL.
5. Describe the concept of Dynamic SQL.
6. How does it differ from static SQL? Discuss the advantages and potential challenges of using Dynamic SQL in database applications.
7. Explain the process of modifying data in a database using SQL.
8. Discuss the use of the UPDATE, INSERT, and DELETE statements, and highlight considerations for ensuring data integrity during modifications.
9. Compare and contrast the use of UNION and UNION ALL operations in SQL. Provide examples to demonstrate how these operations work and when to choose one over the other.
10. Elaborate on the concept of NULL values in SQL. Discuss the challenges and best practices

associated with handling NULL values in database queries and modifications.

11. What are aggregate functions, and how do they contribute to data analysis in SQL?
12. Describe scenarios where functions like SUM, AVG, COUNT, MIN, and MAX would be useful.
13. Explain the importance of indexing in a database. Discuss different types of indexes (e.g., clustered, non-clustered) and their impact on query performance. Provide examples.
14. .Define and discuss the concept of normalization in the context of relational databases.
15. Explain the different normalization forms (e.g., 1NF, 2NF, 3NF) and their purposes.
16. Describe the process of creating and using stored procedures in SQL. Discuss the advantages of using stored procedures in terms of modularity, security, and performance optimization.

UNIT –III

MULTIPLE CHOICE QUESTIONS

1.In SQL, a domain refers to:
a) A network of computers
b) A set of related tables
c) A predefined set of allowable values for a column
d) A backup of the database

2.What is the purpose of referential integrity in a database?
a) Ensuring data encryption
b) Preventing unauthorized access

c) Enforcing relationships between tables
d) Optimizing query performance

3.Which SQL construct is used to define a rule t hat must be true for the database to be considered valid?
a) Constraint b) Trigger
c) Assertion d) Index

4.Triggers in SQL are used to:
a) Create new databases
b) Authenticate users
c) Automatically execute actions in response to specific events
d) Establish encryption protocols

5.Security in a database refers to:
a) The physical location of the database server
b) Encrypting all stored data
c) Restricting access and ensuring data confidentiality
d) Creating complex queries

6.Authorization in SQL involves:
a) Defining the physical structure of the database
b) Granting or denying users' access privileges to specific database objects
c) Running complex analytical queries
d) Creating backup copies of the database

7.What is the purpose of using encryption in a database?
a) To increase query performance
b) To ensure data integrity
c) To automatically generate reports
d) To protect data from unauthorized access

8.Authentication in SQL involves:
a) Ensuring the physical security of the database server
b) Providing users with encryption keys
c) Verifying the identity of users trying to access the database
d) Creating complex stored procedures

9.Which SQL statement is used to add or modify data in a table and automatically enforce constraints?
a) SELECT b) INSERT
c) ALTER d) MERGE

10.An assertion in SQL is used to specify:
a) A data type for a column
b) A domain of allowable values
c) A rule that must always be true in the database
d) An encryption protocol

11.What is the purpose of the GRANT statement in SQL?

a) To create a new table in the database
b) To modify an existing table structure
c) To assign privileges to users or roles
d) To delete data from a table

12.In SQL, what does the term "role" refer to?

a) A specific type of data encryption
b) A group of users with common privileges
c) A domain of allowable values
d) A type of aggregate function

13.What is the primary purpose of a database trigger?

a) To enforce domain constraints
b) To perform data encryption
c) To automatically execute actions in response to events
d) To define referential integrity

14.SQL views can be used to:

a) Encrypt data
b)Create new tables
c) Simplify complex queries
d)Delete records from tables

15.What is the purpose of using data encryption in a database?
a) To increase query performance
b) To prevent data loss
c) To enforce referential integrity
d) To create backup copies of the database

ANSWERS

1.c, 2.c, 3.a, 4.c, 5.c, 6.b, 7.d, 8.c, 9.b, 10.c, 11.c, 12.b, 13.c, 14.c, 15.b.

FIVE-MARK QUESTIONS

1. Define the concept of domain in SQL.
2. How are domains used to enforce data integrity and consistency? Provide examples.
3. Explain the role of triggers in a database system.
4. How are triggers defined, and what types of events can trigger their execution? Provide scenarios where triggers can be beneficial.
5. Discuss the importance of referential integrity in a relational database.
6. Explain how foreign key constraints ensure referential integrity and prevent orphaned records.
7. Describe the purpose and use of assertions in SQL.

8. How do assertions help ensure that certain conditions or rules are always maintained?
9. Within the database?
10. Discuss the concept of security and authorization in a database context.
11. Explain the difference between authentication and authorization, and provide examples of user privileges and roles.
12. Explain the concept of data integrity constraints in a database. Discuss how constraints like UNIQUE, NOT NULL, CHECK, and PRIMARY KEY contribute to maintaining data integrity and preventing inconsistencies.
13. Discuss the significance of authorization and access control in ensuring database security. Explain the roles of users, roles, and privileges in controlling who can access and modify data within a database.
14. Describe the role of encryption in database security.
15. Explain how encryption techniques like Transparent Data Encryption (TDE) work to protect sensitive data at rest.
16. Discuss the trade-offs between security and performance when implementing encryption.
17. Explain the difference between triggers and stored procedures in SQL. Compare and contrast their

purposes, execution times, and use cases within a database system.

18. Discuss the concept of Dynamic SQL and its potential advantages and challenges.
19. How can Dynamic SQL be used to enhance flexibility in database applications? 20. What considerations should be taken into account for security and performance?

TEN-MARK QUESTIONS

1. Elaborate on the concept of database security and the various levels of security that can be implemented.
2. Discuss methods such as user authentication, access control, and encryption.
3. Explain the process of creating and using roles in SQL for managing user privileges and permissions. How can roles simplify the administration of database security?
4. Discuss the potential risks associated with triggers in a database. How can improper trigger design or execution impact data integrity and performance?

5. Describe the process of setting up authorization and access control for users and roles in SQL. Explain the significance of the GRANT and REVOKE statements and how they affect database security.
6. Compare and contrast encryption and authentication in the context of database security. How do encryption methods like Transparent Data Encryption (TDE) contribute to data protection?
7. Explain the concept of dynamic SQL and its implications for database security and performance. Discuss the advantages and challenges of using dynamic SQL statements in database applications.
8. Discuss the considerations and challenges involved in implementing encryption for sensitive data in a database. How does encryption impact query performance, and what measures can be taken to mitigate potential drawbacks?
9. Describe the concept of views in SQL and how they can enhance data security. Provide examples of situations where views can be used to restrict access to specific columns or rows of data.
10. Discuss the potential benefits and challenges of using assertions to enforce data integrity constraints. How do assertions contribute to maintaining consistent and accurate data?

11. Explain the process of defining and managing triggers in SQL. Provide examples of scenarios where triggers can be used to automate data validation, auditing, or other

UNIT-IV

MULTIPLE CHOICE QUESTIONS

1.Which normal form ensures that there are no repeating groups or arrays within a relation?
a) First Normal Form (1NF)

b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

2.In the context of functional dependencies, what does the notation X → Y represent?
a) X determines Y
b) Y determines X
c) X and Y are unrelated
d) X and Y are equal

3.In which normal form should a relation be in order to eliminate partial dependencies?
a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

4.Which normal form is concerned with the elimination of transitive dependencies?
a) Second Normal Form (2NF)
b) Third Normal Form (3NF)
c) Boyce-Codd Normal Form (BCNF)
d) Fourth Normal Form (4NF)

5.The Boyce-Codd Normal Form (BCNF) is an extension of which normal form?

a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Fourth Normal Form (4NF)

6.In the database design process, what is the purpose of normalization?
a) To increase data redundancy
b) To simplify query formulation
c) To improve data integrity and minimize anomalies
d) To denormalize the data

7.Which normal form ensures that all non-key attributes are functionally dependent on the primary key?
a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

8.In a relation, if an attribute is transitively dependent on another attribute, which normal form requirement is violated?
a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

9.What is the primary goal of the Boyce-Codd Normal Form (BCNF)?
a) To eliminate data redundancy
b) To minimize query complexity
c) To eliminate all types of dependencies
d) To ensure that non-prime attributes are dependent on superkeys

10.Which normal form ensures that there are no multivalued dependencies?
a) Second Normal Form (2NF)
b) Third Normal Form (3NF)
c) Boyce-Codd Normal Form (BCNF)
d) Fourth Normal Form (4NF)

11.The process of breaking down a relation into multiple smaller relations to eliminate data redundancy is known as:
a) Aggregation b) Normalization
c) Denormalization d) Decomposition

12.What does a partial dependency in a relation indicate?
a) An attribute depends on another attribute
b) An attribute depends only on part of the primary key

c) An attribute is determined by the primary key
d) An attribute is related to a foreign key

13.Which normal form deals with the elimination of multivalued dependencies?
a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Fourth Normal Form (4NF)

14.In the context of functional dependencies, a determinant is:
a) An attribute on which another attribute depends
b) An attribute that is determined by the primary key
c) An attribute that is dependent on another attribute
d) An attribute with a NULL value

15.Which of the following is not a goal of normalization?
a) Eliminate data anomalies
b) Improve data integrity
c) Maximize storage efficiency
d) Simplify data retrieval

16.Which normal form ensures that there are no transitive dependencies?

a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

17.The process of converting complex data structures into simple, stable data structures is known as:
a) Normalization b) Denormalization
c) Decomposition d) Simplification

18.Which normal form is concerned with eliminating partial dependencies and transitive dependencies?
a) Second Normal Form (2NF)
b) Third Normal Form (3NF)
c) Boyce-Codd Normal Form (BCNF)
d) Fourth Normal Form (4NF)

19.In the context of functional dependencies, a candidate key is:
a) A key used for indexing
b) An attribute that uniquely identifies a tuple
c) A primary key with additional attributes
d) A foreign key in another table

20.What is the primary purpose of the Fourth Normal Form (4NF)?

a) To eliminate partial dependencies
b) To eliminate transitive dependencies
c) To eliminate multivalued dependencies
d) To eliminate duplicate tuples

21.In a relation, a transitive dependency occurs when an attribute depends on:
a) The primary key
b) Another attribute
c) A combination of attributes
d) A foreign key

22.The process of organizing data in a database to minimize redundancy and improve data integrity is called:
a) Normalization b) Denormalization
c) Indexing d) Aggregation

23.An attribute that uniquely identifies a tuple in a relation is called:
a) Candidate key b) Primary key
c) Foreign key d) Superkey

24.Which normal form ensures that all non-key attributes are fully functionally dependent on the primary key?

a) First Normal Form (1NF)
b) Second Normal Form (2NF)
c) Third Normal Form (3NF)
d) Boyce-Codd Normal Form (BCNF)

25.In the context of functional dependencies, a superkey is:
a) Any attribute in a relation
b) A primary key with additional attributes
c) A potential candidate key
d) A unique identifier for a tuple

ANSWERS

1.a, 2.a, 3.b, 4.b, 5.b, 6.c, 7.c, 8.c, 9.d,10.a, 11.b, 12.b, 13.d,14.a, 15.c, 16.c, 17.a, 18.b, 19.b, 20.c, 21.b, 22.a, 23.b, 24.c, 25.a.

FIVE MARK QUESTIONS

1. Explain the concept of First Normal Form (1NF) and provide an example of a relation that violates 1NF. How can the violation be resolved?
2. Describe the role of functional dependencies in relational database design.

3. Provide an example to illustrate a functional dependency and explain how it can impact normalization.
4. Discuss the conditions that must be satisfied for a relation to be in Second Normal Form (2NF). Provide an example of a relation that is in 1NF but not in 2NF and demonstrate the process of bringing it to 2NF.
5. Define Boyce-Codd Normal Form (BCNF) and explain why it's considered more stringent than Third Normal Form (3NF). Provide an example of a relation that is in 3NF but not in BCNF and explain the reasons behind it.
6. Explain the concept of transitive dependency and how it relates to database normalization. Provide an example of a relation with a transitive dependency and demonstrate how it can be resolved using normalization.
7. Describe the process of decomposing a relation to Third Normal Form (3NF) with the help of examples. Highlight the benefits of achieving 3NF in terms of data integrity and query performance.
8. Discuss the key steps involved in the overall database design process, from initial concept to a fully normalized schema. Highlight the importance of normalization at each step.

9. Define multivalued dependency and explain why it can lead to data redundancy. Provide an example of a relation with multivalued dependencies and discuss how Fourth Normal Form (4NF) addresses this issue.
10. Elaborate on the concept of denormalization. Under what circumstances might denormalization be considered?
11. Discuss the potential benefits and drawbacks of denormalization in database design, and provide examples of situations where it could be applied.
12. Explain the significance of candidate keys in the context of database design.
13. How do candidate keys relate to superkeys and primary keys? Provide an example to demonstrate the concept of candidate keys in a relation.

TEN MARK QUESTIONS

1. Outline the process of designing a relational database, including the steps involved in normalization.
2. Emphasize the importance of normalization in achieving a well-structured and efficient database design.

3. Compare and contrast Second Normal Form (2NF) and Third Normal Form (3NF). Provide examples to illustrate the differences and explain how these normal forms address different types of data redundancy and anomalies.
4. Discuss the significance of candidate keys in database design. Explain how they are related to superkeys and primary keys. Provide an example to demonstrate the concept of candidate keys in a relation.
5. Define and explain the concept of multivalued dependencies in the context of database design. Illustrate with an example of a relation containing multivalued dependencies.
6. Describe how Fourth Normal Form (4NF) helps to eliminate such dependencies.
7. Elaborate on the concept of denormalization. Under what circumstances might denormalization be considered?
8. Discuss the potential benefits and drawbacks of denormalization in database design, and provide examples of situations where it could be applied.
9. Explain the concept of functional dependencies and how they are identified in a relation. Discuss the role of functional dependencies in achieving higher normal forms and improving data integrity.

10. Describe the criteria for a relation to be in Boyce-Codd Normal Form (BCNF). Provide an example of a relation that is in BCNF and explain why it meets BCNF criteria. Additionally, provide an example of a relation that violates BCNF and explain why.
11. Discuss the challenges and pitfalls that can arise during the process of designing a relational database. Provide examples of common mistakes.
12. Explain how they can lead to data anomalies and inefficiencies.
13. Compare and contrast the concepts of normalization and denormalization. 14. Explain the circumstances in which each approach is appropriate 15. Discuss the trade-offs involved in choosing between them.
16. Explain the process of achieving Fourth Normal Form (4NF) in a relational database. Provide examples to illustrate the concept of multivalued dependencies and demonstrate how 4NF can help in eliminating such dependencies.

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UNIT-V

MULTIPLE CHOICE QUESTIONS

1. In transaction management, what is the primary goal of concurrency control?
a) Ensuring data integrity
b) Maximizing system performance
c) Preventing data redundancy
d) Simplifying query formulation

2. Which term refers to a sequence of read and write operations treated as a single, indivisible unit of work?
a) Concurrency b) Transaction
c) Locking d) Deadlock

3. In transaction processing, the ACID properties ensure:
a) High performance
b) Data redundancy
c) Data consistency and reliability
d) Simplified query formulation

4. Which state of a transaction indicates that the transaction has been successfully completed?
a) Active b) Partially committed

c) Committed d) Aborted

5. The process of granting and releasing locks to ensure proper coordination between transactions is known as:
a) Deadlock handling b) Concurrency control
c) Transaction isolation d) Recovery management

6. Which protocol ensures serializability by granting exclusive locks and releasing them only at the end of the transaction?
a) Two-Phase Locking b) Timestamp ordering
c) Deadlock detection d) Write-ahead logging

7. In the context of concurrency control, what is a deadlock?
a) A situation where two transactions execute concurrently
b) A situation where a transaction violates the integrity constraints
c) A situation where a transaction is partially committed
d) A situation where two or more transactions are waiting indefinitely for each other

8. Which protocol uses timestamps to order the execution of transactions and prevent conflicts?
a) Two-Phase Locking b) Timestamp ordering

c) Write-ahead logging d) Deadlock detection

9. The process of temporarily halting the execution of a transaction to allow other transactions to proceed is known as:
a) Locking b) Blocking
c) Deadlocking d) Preemption

10. Which property ensures that a transaction will bring the database from one consistent state to another?
a) Atomicity b) Consistency
c) Isolation d) Durability

11. What is the purpose of the "Isolation" property in ACID transactions?
a) To ensure that transactions are durable
b) To prevent concurrent transactions from interfering with each other
c) To guarantee that all operations within a transaction are atomic
d) To enforce consistency by executing transactions in a specific order

12. Which state of a transaction indicates that the transaction is in progress and actively performing its operations?

a) Active b) Partially committed
c) Committed d) Aborted

13. What does the term "serializability" mean in the context of transaction management?
a) The ability of a transaction to execute in isolation
b) The order in which transactions are executed
c) The guarantee that transactions will be executed concurrently
d) The ability to convert concurrent execution into equivalent serial execution

14. In the context of locking-based concurrency control, what is a shared lock?
a) A lock that allows multiple transactions to write to the same resource
b) A lock that allows multiple transactions to read the same resource
c) A lock that prevents all other transactions from accessing a resource
d) A lock that is released at the end of a transaction

15. The process of releasing locks and committing changes to the database is known as:
a) Locking b) Aborting
c) Rolling back d) Committing

16. Which concurrency control protocol aims to prevent deadlocks by avoiding circular wait conditions?

a) Two-Phase Locking b) Timestamp ordering
c) Deadlock detection d) Preemption

17. What is the primary purpose of using timestamps in the Timestamp ordering protocol?

a) To ensure that transactions are executed in the order they are submitted
b) To ensure that transactions are executed in parallel
c) To track the duration of each transaction
d) To order the execution of transactions and prevent conflicts

18. Which property of a transaction ensures that its changes will persist even in the presence of failures?

a) Atomicity b) Consistency
c) Isolation d) Durability

19. In the context of transactions, what does the term "atomicity" mean?

a) The guarantee that a transaction will execute without interference
b) The ability of a transaction to execute in isolation

c) The property that ensures all operations within a transaction are completed or none at all
d) The guarantee that transactions will be executed in a specific order

20. In the Two-Phase Locking protocol, what is the purpose of the "growing phase"?
a) To grant all necessary locks
b) To release all locks
c) To detect deadlocks
d) To validate the transaction's serializability

21. In the context of concurrency control, what is a shared lock used for?
a) To prevent other transactions from reading a resource
b) To prevent other transactions from writing to a resource
c) To allow multiple transactions to read a resource simultaneously
d) To allow a transaction to exclusively access a resource

22. What is the purpose of the "Rollback" operation in the context of transaction management?
a) To commit the changes made by a transaction
b) To release all locks held by a transaction

c) To undo the changes made by a transaction and restore the database to a consistent state
d) To validate the serializability of a transaction

23. The concept of "timestamp" is primarily used for:
a) Assigning unique identifiers to transactions
b) Determining the execution order of transactions
c) Assigning priority levels to transactions
d) Detecting deadlocks

24. What is the main disadvantage of using the Two-Phase Locking protocol?
a) It can lead to transaction starvation
b) It may not prevent deadlocks
c) It requires extensive logging
d) It slows down the transaction processing

25. What is a "timestamp ordering protocol" in transaction management?
a) A protocol that assigns unique timestamps to each transaction
b) A protocol that enforces a fixed execution order based on timestamps
c) A protocol that uses timestamps to detect conflicts between transactions
d) A protocol that grants locks based on timestamps

ANSWERS

1.a, 2.b, 3.c, 4.c, 5.b, 6.a, 7.d, 8.b, 9.b, 10.b, 11.b, 12.a, 13.d, 14.b, 15.d, 16.c, 17.d, 18.d, 19.c, 20.a, 21.c, 22.c, 23.b, 24.b, 25.b.

FIVE MARK QUESTIONS

1. Explain the concepts of transaction and concurrency control in database management.
2. How does concurrency control help maintain data integrity while allowing multiple transactions to execute concurrently?
3. Define the ACID properties of transactions and discuss their significance in ensuring reliable database operations. Provide examples to illustrate the importance of each property.
4. Describe the various states that a transaction can go through during its execution lifecycle. Explain the actions associated with each state and how these states impact the overall transaction processing.
5. Compare and contrast the Two-Phase Locking protocol and the Timestamp ordering protocol in terms of their mechanisms, advantages, and limitations.

6. How do these protocols address the challenges of concurrency control?
7. Explain the concept of a deadlock in the context of transaction management.
8. Discuss various methods for detecting and handling deadlocks, including deadlock prevention, avoidance, and detection algorithms.
9. Discuss the challenges and trade-offs associated with the use of locking-based concurrency control mechanisms.
10. How do shared locks and exclusive locks affect the coordination between transactions?
11. Describe the Timestamp ordering protocol in detail.
12. How does it use timestamps to ensure serializability?
13. Discuss the steps involved in implementing the Timestamp ordering protocol and its impact on transaction execution.
14. Explain the concept of transaction isolation levels and how they influence the behavior of transactions in a multi-user database environment.
15. Compare and contrast the different isolation levels, discussing their advantages and drawbacks.
16. Define the concept of serializability in the context of transaction management.

17. Discuss the importance of achieving serializability and how it impacts the consistency of the database.
18. Elaborate on the concept of deadlock handling in database systems.
19. Describe different deadlock prevention, avoidance, and detection strategies, providing examples to illustrate each approach.

TEN MARK QUESTIONS

1. Outline the challenges associated with concurrent execution of transactions in a database system.
2. Discuss the concepts of resource contention and data anomalies that arise in a multiuser environment.
3. Describe the Two-Phase Locking protocol in detail.
4. Explain the two phases of the protocol and how it ensures conflict-serializability.
5. Discuss the benefits and limitations of the Two-Phase Locking protocol.
6. Explain the concept of transaction timestamping in the context of the Timestamp ordering protocol.
7. Discuss how timestamping helps in enforcing a serial execution order and maintaining serializability.

8. Discuss the significance of the ACID properties in ensuring reliable database transactions. Provide examples to illustrate the implications of violating each property and how they can impact data integrity.
9. Compare and contrast the Two-Phase Locking protocol and the Timestamp ordering protocol as concurrency control mechanisms. Analyze their strengths and weaknesses, and discuss scenarios where one protocol might be preferred over the other.
10. Describe the steps involved in the execution of a transaction in a database system. Explain how a transaction progresses through various states and the role of the concurrency control mechanisms in managing concurrent execution.
11. Explain the concept of transaction isolation levels and their impact on the behavior of transactions.
12. Discuss the implications of different isolation levels on data consistency, concurrency, and performance.
13. Discuss the challenges and solutions related to ensuring data consistency in a multiuser database system.
14. Explain how locking mechanisms, isolation levels, and concurrency control protocols contribute to maintaining data integrity.

15. Elaborate on the concept of deadlock handling in database systems.
16. Compare and contrast different deadlock prevention, avoidance, and detection strategies, highlighting their advantages and disadvantages.
17. Analyze the role of transaction management in ensuring data integrity and reliability in a database system.
18. Explain how concurrency control mechanisms and isolation levels contribute to maintaining a consistent and coherent database state

INTRODUCTION TO COMPUTER TECHNOLOGY

UNIT-I

MULTIPLE CHOICE QUESTIONS

1. What is the primary function of a computer?
a) Communication b) Data storage
c) Data processing d) Data presentation

2. Which of the following is NOT a classification of computers?
a) Microcomputer b) Nanocomputer
c) Minicomputer d) Mainframe

3. The "brain" of the computer is called:
a) Monitor b) Keyboard
c) Central Processing Unit (CPU) d)Memory

4. Which component is responsible for storing data temporarily while the computer is running?
a) Hard Drive b) RAM
c) SSD d) CPU

5. The binary number system is based on which digits?
a) 0 and 9 b) 0 and 1
c) 1 and 2 d) 1 and 9

6. Which logic gate outputs 1 only when both inputs are 1?
a) AND gate b) OR gate
c) NOT gate d)XOR gate

7. A combination of logic gates that performs the opposite function of the AND gate is:
a) NAND gate b) NOR gate
c) XOR gate d) XNOR gate

8. Which part of the computer defines its instruction set, memory hierarchy, and data pathways?
a) CPU b) RAM
c) Input devices d) Computer architecture

9. What is the purpose of a programming language?

a) To store data
b) To communicate with other computers
c) To write software instructions
d) To connect to the internet

10. Supercomputers are primarily used for:
a) Word processing
b) Playing games
c) Complex calculations and simulations
d) Basic arithmetic operations

11. Which computer classification is known for its high performance in scientific and engineering tasks?
a) Mainframe b) Microcomputer
c) Supercomputer d) Minicomputer

12. The binary equivalent of the decimal number 10 is:
a) 1010 b) 1000
c) 1101 d) 1110

13. Which logic gate outputs 0 when its input is 1 and vice versa?
a) AND gate
b) OR gate
c) NOT gate

d) XOR gate

14. The CPU executes instructions stored in:
a) Input devices b) RAM
c) Hard Drive d) Output devices

15. Which classification of computers is suitable for small business operations?
a) Mainframe b) Supercomputer
c) Microcomputer d) Minicomputer

16. The architecture of a computer defines its:
a) Physical size
b) Operating system
c) Hardware components and organization
d) Networking capabilities

17. Which number system is commonly used for human communication?
a) Binary b) Octal
c) Decimal d) Hexadecimal

18. The basic logic gates can be combined to create more complex logic functions. Which of the following gates is NOT a basic gate?
a) XOR gate b) NAND gate

c) AND gate d) OR gate

19. A NOR gate outputs 1 only when:
a) Both inputs are 1 b) Both inputs are 0
c) Either input is 1 d) Either input is 0
20. The physical components that make up a digital computer are collectively known as:
a) Software b) Firmware
c) Hardware d) Middleware

21. Which computer language is often used for web development and scripting?
a) Java b) C++
c) Python d) Swift

22. The binary number 1010 is equivalent to which decimal number?
a) 8 b) 10
c) 12 d) 14

23. An OR gate outputs 1 when:
a) Both inputs are 1 b) Both inputs are 0
c) Either input is 1 d) Either input is 0
24. The process of converting high-level programming code into machine code is known as:

a) Interpretation b) Compilation
c) Execution d) Debugging

25. Mainframe computers are typically used for:
a) Personal tasks and entertainment
b) Gaming
c) Large-scale data processing and critical applications
d) Portable computing

ANSWERS

1.c, 2.b, 3.c, 4.b, 5.b, 6.a, 7.a, 8.d, 9.c, 10.c, 11.c, 12.a, 13.c, 14.b, 15.c, 16.c, 17.c, 18.a, 19.b, 20.c, 21.c, 22.b, 23.c, 24.b, 25.c.

FIVE-MARK QUESTIONS& TEN-MARK QUESTIONS

1. Explain the role of the CPU in a computer system and how it interacts with memory and input/output devices.
2. Compare and contrast the features of microcomputers and mainframe computers, providing examples of their typical uses.

3. Describe the hierarchy of memory in a computer system, including the functions of registers, cache memory, RAM, and secondary storage.
4. Discuss the significance of computer architecture in the design and functionality of a computer system. Explain the concept of instruction set architecture.
5. Differentiate between high-level programming languages and low-level programming languages. Provide examples of each type and explain their purposes.
6. Explain the binary number system and how it is used in computers. Convert the decimal number 42 to its binary equivalent.
7. Describe the logical operations performed by the AND, OR, NOT, NAND, and NOR gates. Provide examples of how these gates can be used to create complex logic functions.
8. Discuss the advantages and disadvantages of using hexadecimal and octal number systems compared to the decimal and binary systems.
9. Elaborate on the concept of a supercomputer. Provide examples of real-world applications where supercomputers are indispensable.
10. Describe the process of compiling a high-level programming language code into machine code. Explain how the resulting machine code

UNIT-II

MULTIPLE CHOICE QUESTIONS

1. What does ALU stand for?
a) Arithmetic Logic Unit b) Advanced Logical Unit
c) Algorithmic Language Unit d) Access Logic Unit

2. The component responsible for coordinating all the activities of a computer system is called:
a) ALU b) CPU
c) RAM d) ROM

3. Which memory unit retains its data even when the power is turned off?
a) RAM b) ROM

c) EPROM d) EEPROM

4. Which auxiliary storage device provides the fastest data access times?

a) Magnetic Tape b) Floppy Disk
c) CD-ROM d) Hard Disk

5. The process of loading the operating system into a computer's main memory from a bootable device is known as:

a) Booting b) Formatting
c) Compiling d) Debugging

6. What is the purpose of the Control Unit (CU) in a computer?

a) Perform arithmetic operations
b) Execute program instructions
c) Manage memory storage
d) Coordinate hardware components

7. What type of memory is non-volatile and contains firmware?

a) RAM b) ROM
c) Cache d) Virtual Memory

8. Which memory type allows data to be read and written by the CPU but loses its content when the power is off?

a) RAM b) ROM
c) Flash Memory d) Cache Memory

9. Which storage device is known for its high capacity, durability, and fast data access times?

a) CD-ROM b) Floppy Disk
c) Hard Disk d) Magnetic Tape

10. Which storage device uses laser technology to read and write data?

a) Hard Disk b) Magnetic Tape
c) CD-ROM d) Floppy Disk

11. What does EPROM stand for?

a) Electrically Programmable Read-Only Memory
b) External Programming Read-Only Memory
c) Enhanced Peripheral Read-Only Memory
d) Efficient Programmable Random-Access Memory

12. Which memory is volatile and serves as the main working memory for the computer?

a) RAM b) ROM

c) Cache Memory d) Flash Memory

13. Which memory is used primarily to store the BIOS and firmware of a computer system?
a) RAM b) ROM
c) Cache Memory d) Virtual Memory

14. Which memory organization allows data to be read and written randomly?
a) RAM b) ROM
c) Cache Memory d) Sequential Memory

15. Which auxiliary storage device has the lowest data access speed?
a) Hard Disk b) Magnetic Tape
c) CD-ROM d) Floppy Disk

16. What is the purpose of the Arithmetic Logic Unit (ALU)?
a) Manage memory allocation
b) Execute program instructions
c) Control input/output devices
d) Perform arithmetic and logical operations

17. Which memory organization is non-volatile and contains the bootloader?

a) RAM b) ROM
c) Cache Memory d) Flash Memory

18. Which of the following is an example of sequential access storage?
a) Hard Disk b) RAM
c) CD-ROM d) Cache Memory

19. Which memory type is commonly used for long-term storage of data and programs?
a) RAM b) ROM
c) Flash Memory d) Cache Memory

20.What is the purpose of the Memory Control Unit (MCU)?
a) Execute program instructions
b) Perform arithmetic operations
c) Manage data flow between RAM and CPU
d) Control external devices

21.Which storage device is most suitable for creating backup copies of important data?
a) Floppy Disk b) CD-ROM
c) Hard Disk d) Magnetic Tape

22.What is the primary difference between RAM and ROM?

a) RAM is volatile, while ROM is non-volatile.
b) RAM is slower than ROM.
c) ROM is used for temporary data storage.
d) ROM is volatile, while RAM is non-volatile.

23.Which storage device has the fastest data access times among the listed options?

a) Magnetic Tape b) Floppy Disk
c) CD-ROM d) Solid State Drive (SSD)

24.Which memory type allows data to be erased and reprogrammed electronically?

a) RAM b) ROM
c) Flash Memory d) Cache Memory

25. What is the purpose of the Read-Only Memory (ROM)?

a) Temporary data storage
b) Storing user files
c) Holding permanent instructions and firmware
d) Managing memory allocation

ANSWERS

1.a, 2.b, 3.b, 4.d, 5.a, 6.d, 7.b, 8.a, 9.c, 10.c, 11.a, 12.a, 13.a, 14.a,15.a, 16.a, 17.d, 18.a, 19.b, 20.c, 21.c, 22.a, 23.d, 24.c, 25.c.

FIVE-MARK QUESTIONS

1. Explain the role of the Control Unit (CU) in a computer's central processing unit (CPU).
2. Differentiate between RAM and ROM in terms of their functions and characteristics.
3. Describe the process of data retrieval from a magnetic tape and compare it to accessing data from a hard disk.
4. How does Flash Memory differ from traditional hard disk drives (HDDs) in terms of data storage and access?
5. Discuss the advantages and disadvantages of using CD-ROMs for data storage and distribution.
6. Elaborate on the concept of memory hierarchy and its significance in computer system performance.
7. Explain the difference between sequential access and random access storage devices, providing examples of each.
8. Describe the process of reading data from and writing data to an EEPROM (Electrically Erasable Programmable Read-Only Memory).

9. Discuss the key characteristics and applications of Solid State Drives (SSDs) compared to traditional Hard Disk Drives (HDDs).
10. How does a computer system boot process work? Describe the sequence of events from turning on the power to loading the operating system.

TEN-MARK QUESTIONS

1. Elaborate on the architecture and functions of the Arithmetic Logic Unit (ALU) in a CPU.
2. Compare and contrast the characteristics of primary memory (RAM) and secondary memory (auxiliary storage devices) in terms of speed, capacity, volatility, and data access methods.
3. Explain the differences between volatile and non-volatile memory types, providing examples of each. How does volatility impact their use in computer systems?
4. Discuss the various factors that affect the performance of a computer's memory hierarchy, including cache memory, RAM, and secondary storage.

5. Describe the principles behind virtual memory management and its role in enhancing a computer's ability to run multiple applications simultaneously.
6. Compare the advantages and disadvantages of different optical storage media, such as CD-ROMs and DVD-ROMs.
7. Explain the concept of cache memory and its role in improving a computer's overall performance.
8. Discuss the evolution of storage technologies, from magnetic tapes to modern Solid State Drives (SSDs), highlighting their benefits and limitations.
9. .Describe the functioning of an EPROM (Erasable Programmable Read-Only Memory) and how it differs from EEPROM (Electrically Erasable Programmable Read-Only Memory).
10. How does the organization of memory in a computer system contribute to efficient data access and storage management? Provide examples to support your explanation.

UNIT-III

MULTIPLE CHOICE QUESTIONS

1. What is the primary function of an operating system?

a) Running application software
b) Managing hardware resources

c) Providing internet access
d) Creating programming languages

2. Which of the following is an example of a high-level programming language?
a) Assembly language b) C++
c) Machine code d) Binary code

3. What protocol is commonly used for sending and receiving emails?
a) HTTP b) SMTP
c) FTP d) TCP/IP

4. What does "www" stand for in the context of the internet?
a) World Wide Web b) Web Widespread Wire
c) Wide Web World d) World Web Wide

5. What is the purpose of a domain name?
a) To identify the user's computer
b) To specify the email protocol
c) To provide a human-readable address for websites
d) To encrypt internet traffic

6. Which of the following is an advantage of using the internet?

a) Limited access to information
b) Slow communication
c) Global connectivity
d) High cost

7. What is the function of a web browser?
a) To compose emails
b) To store files on a computer
c) To search for information on the internet
d) To create web pages

8. What is the role of the SMTP server in email communication?
a) Sending email messages
b) Receiving email messages
c) Storing email messages
d) Displaying email messages

9. Which layer of the OSI model is responsible for routing data between different networks?
a) Data link layer b) Network layer
c) Transport layer d) Physical layer

10. What is the purpose of a firewall in computer networks?
a) To slow down network traffic

b) To monitor network activity
c) To prevent unauthorized access
d) To increase network speed

11. Which programming language is known for its use in web development and is often used with HTML and CSS?
a) Java b) Python
c) JavaScript d) C#

12. What is the primary function of an operating system's kernel?
a) Managing hardware resources
b) Running application software
c) Sending emails
d) Designing web pages

13. What technology allows multiple users to access a mainframe computer simultaneously over a network?
a) Cloud computing b) Virtualization
c) Terminal services d) Distributed computing

14. Which of the following is a disadvantage of the internet?
a) Global connectivity b) Easy access to information
c) Security concerns d) High cost

15. What is the purpose of the HTTP protocol on the World Wide Web?

a) Sending emails b) Downloading files

c) Displaying web pages d) Encrypting data

16. Which of the following is NOT a commonly used web browser?

a) Google Chrome b) Mozilla Firefox

c) Microsoft Word d) Safari

17. In the context of programming languages, what is the significance of "syntax"?

a) It refers to the meaning of a program's instructions.

b) It specifies the structure and rules of the language.

c) It determines the speed of program execution.

d) It refers to the program's user interface.

18. What does DNS stand for in the context of the internet?

a) Data Network Services b) Domain Name System

c) Digital Network Security d)Dynamic Network Sharing

19. Which computer network topology connects all devices in a linear fashion, like a chain?

a) Star topology b) Bus topology

c) Ring topology d) Mesh topology

20. Which of the following is NOT a common email attachment file format?
a) PDF b) MP3
c) JPG d) DOCX

21. What is the primary function of the transport layer in the OSI model?
a) Routing data packets
b) Providing network security
c) Establishing and managing connections
d) Physical data transmission

22. Which programming language is often used for system-level programming and operating system development?
a) Java b) Python
c) C d) Ruby

23. What does HTML stand for in the context of web development?
a) Hyperlink Text Markup Language
b) Hypertext Transfer Protocol
c) Hypermedia Text Manipulation Language
d) Hypertext Markup Language

24. Which of the following is a characteristic of a peer-to-peer network?

a) Centralized control
b) Client-server architecture
c) Equal sharing of resources
d) High security

25. What is the primary function of an Internet Service Provider (ISP)?

a) Creating websites
b) Providing email services
c) Offering internet connectivity
d) Developing software applications

ANSWERS

1.c, 2.c, 3.c, 4.c, 5.c, 6.c, 7.c, 8.c, 9.c, 10.c, 11.c, 12.c, 13.c, 14.c,15.c, 16.c, 17.b, 18.b, 19.d,
20.d, 21.d, 22.d, 23.d, 24.c, 25.c.

FIVE-MARK QUESTIONS

1. Explain the role of an operating system in managing computer hardware and software resources.

2. Compare and contrast high-level programming languages and low-level programming languages. Provide examples of each.
3. Describe the components and functions of a typical email system, including the roles of SMTP and POP3.
4. Discuss the advantages and disadvantages of the World Wide Web (WWW) in terms of information accessibility and communication.
5. Explain the domain name system (DNS), including its purpose and the structure of domain names.
6. Describe the major advantages and disadvantages of the internet as a global network for communication and information sharing.
7. Differentiate between web browsers and search engines, and explain their respective functions in internet use.
8. Discuss the significance of the OSI (Open Systems Interconnection) model in computer networking and its seven layers.
9. Explain the concept of a firewall in computer networks, including its role in network security.
10. Compare and contrast the characteristics and use cases of different programming languages, such as Python, Java, and C++.

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TEN-MARK QUESTIONS

1. Provide a detailed overview of the functions and responsibilities of an operating system's kernel, including memory management and process scheduling.
2. Explain the evolution of programming languages, from machine code to high-level languages, highlighting major milestones and their impact on software development.
3. Describe the architecture and functioning of the World Wide Web (WWW), including the roles of clients, servers, web browsers, and web servers.
4. Discuss the advantages and disadvantages of using email as a communication tool, considering factors such as speed, cost, and security.
5. Explain the concepts of IP addressing and subnetting in computer networking, including their importance in routing data across networks.
6. Elaborate on the key components and protocols that make up the TCP/IP suite and their significance in internet communication.
7. Compare and contrast client-server and peer-to-peer network architectures, detailing their characteristics, benefits, and limitations.

8. Discuss the concept of network security, including potential threats and measures that can be taken to ensure data protection and privacy.
9. Explain the role of programming languages in software development, highlighting factors that influence the choice of a programming language for a given project.
10. Provide an in-depth explanation of the role of DNS (Domain Name System) in translating human-readable domain names into IP addresses, enabling web navigation.

UNIT IV

MULTIPLE CHOICE QUESTIONS

1.What does multimedia refer to?
a) A single form of media
b) Combination of multiple forms of media
c) A type of computer hardware
d) A programming language

2.Which of the following is a multimedia tool used for vector graphics?
a) Photoshop b) Illustrator
c) Premiere Pro d) After Effects

3.E-commerce involves:
a) Traditional in-person transactions only
b) Online buying and selling of goods and services
c) Face-to-face communication only
d) Local advertising

4.Data processing involves:
a) Storing data only
b) Manipulating and organizing data
c) Deleting data

d) Encrypting data

5.The department responsible for managing and maintaining information systems is:
a) Sales department
b) Marketing department
c) Human Resources department
d) Information Systems department

6.Which type of information system supports day-to-day operations?
a) Decision Support System (DSS)
b) Executive Information System (EIS)
c) Transaction Processing System (TPS)
d) Expert System (ES)

7.The process of developing, maintaining, and modifying information systems is called:
a) System Analysis
b) System Design
c) System Development Life Cycle (SDLC)
d) System Testing

8.Which phase of the SDLC involves gathering and understanding requirements from stakeholders?
a) Planning b) Analysis

c) Design d) Implementation

9.Which information system helps middle management make semi-structured decisions?

a) Management Information System (MIS)
b) Transaction Processing System (TPS)
c) Decision Support System (DSS)
d) Expert System (ES)

10.What is a primary advantage of using multimedia in presentations?

a) Reduced complexity
b) Limited engagement
c) Enhanced visual and auditory appeal
d) Text-only content

11.Which tool is best suited for editing and assembling video clips?

a) Adobe Photoshop b) Microsoft Word
c) Adobe Premiere Pro d) Microsoft Excel

12.What is the main purpose of a Transaction Processing System (TPS)?

a) Long-term planning
b) Generating reports
c) Supporting day-to-day operations

d) Analyzing trends

13.Which type of e-commerce focuses on business-to-consumer transactions?

a) B2B (Business-to-Business)
b) C2C (Consumer-to-Consumer)
c) B2C (Business-to-Consumer)
d) P2P (Peer-to-Peer)

14.In the context of the System Development Life Cycle (SDLC), what does the "Implementation" phase involve?

a) Gathering requirements
b) Creating prototypes
c) Writing code and developing the system
d) Documenting system specifications

15.What is the primary role of an Executive Information System (EIS)?

a) Supporting operational decisions
b) Analyzing complex data
c) Providing top management with strategic information
d) Managing transactional data

16.Which information system is designed to capture and store data about each transaction?

a) Decision Support System (DSS)
b) Expert System (ES)
c) Transaction Processing System (TPS)
d) Management Information System (MIS)

17.The process of converting raw data into a more meaningful form is called:

a) Data analysis b) Data interpretation
c) Data processing d) Data transformation

18.What is the main purpose of a Decision Support System (DSS)?

a) Processing transactions
b) Providing information to top management
c) Automating routine tasks
d) Managing employee records

19.Which phase of the System Development Life Cycle (SDLC) involves creating detailed specifications for the system?

a) Planning b) Analysis
c) Design d) Implementation

20.What is the primary focus of the "Maintenance" phase in the System Development Life Cycle (SDLC)?

a) Developing prototypes
b) Fixing bugs and enhancing the system
c) Gathering requirements
d) Writing code

21.Which type of e-commerce involves online auctions?

a) B2B b) C2C
c) B2C d) C2B (Consumer-to-Business)

22.In which phase of the SDLC does testing and quality assurance occur?

a) Planning b) Analysis
c) Design d) Testing

23.Which information system is designed to replicate human decision-making and expertise?

a) Management Information System (MIS)
b) Expert System (ES)
c) Decision Support System (DSS)
d) Transaction Processing System (TPS)

24.Which phase of the System Development Life Cycle (SDLC) involves identifying the problem to be solved?

a) Planning b) Analysis
c) Design d) Implementation

25.What is the purpose of the "Planning" phase in the System Development Life Cycle (SDLC)?
a) Developing prototypes
b) Creating detailed designs
c) Identifying project scope and objectives
d) Writing code

ANSWERS

1.b, 2.b, 3.b, 4.b, 5.d, 6.c, 7.c, 8.b, 9.a, 10.c, 11.c, 12.c, 13.c, 14.c,15.c, 16.c, 17.c, 18.b, 19.c, 20.b, 21.b, 22.b, 23.b, 24.b, 25.c.

FIVE-MARK QUESTIONS

1. Explain the term "multimedia" and provide examples of how it is used in different fields. How does the integration of various media types enhance communication?
2. Describe the key functions of the Information Systems department within an organization. How does this department contribute to the overall success of the business?

3. Differentiate between Transaction Processing Systems (TPS) and Decision Support Systems (DSS). Provide examples of scenarios where each type of system would be most beneficial.
4. Discuss the importance of proper data processing in e-commerce. Describe the steps involved in processing an online customer order, from initiation to final confirmation.
5. Briefly outline the stages of the System Development Life Cycle (SDLC). How does the SDLC ensure that software projects are developed successfully and meet user requirements?
6. Explain the concept of data security in multimedia applications. What measures can be taken to protect sensitive multimedia content from unauthorized access?
7. How do multimedia tools contribute to effective marketing strategies? Provide examples of how businesses utilize multimedia elements to engage and attract customers.
8. Discuss the role of Management Information Systems (MIS) in improving decisionmaking within an organization. Provide examples of the types of decisions that MIS can assist with.
9. Describe the challenges associated with managing an Information Systems department. How can these

challenges be addressed to ensure the efficient functioning of the department?

10. Explain the importance of user involvement during the System Development Life Cycle (SDLC). How does user feedback contribute to the success of a software project?

TEN-MARK QUESTIONS

1. In the context of e-commerce, analyze the process of inventory management. Discuss how data processing is crucial for maintaining optimal inventory levels and avoiding stockouts.
2. Discuss the ethical considerations associated with multimedia content creation and distribution. How can content creators ensure that their work respects copyright and privacy?
3. Compare and contrast the waterfall model and the agile model in the context of the System Development Life Cycle (SDLC). What are the advantages and disadvantages of each approach?
4. Explain the concept of a Decision Support System (DSS) and its role in enhancing managerial decision-

making. Provide examples of industries where DSS can be particularly valuable.

5. Describe the role of multimedia tools in enhancing online learning experiences. How can educational institutions leverage multimedia to make learning more engaging and effective?
6. Discuss the potential risks and security challenges in e-commerce data processing. How can encryption and secure payment gateways mitigate these risks?
7. Explain how Information Systems contribute to supply chain management. Describe how different types of information systems are used to streamline supply chain processes.
8. Analyze the impact of rapid technological advancements on the System Development Life Cycle (SDLC). How can organizations adapt their SDLC approaches to stay agile and competitive?
9. Describe the characteristics and functions of Executive Information Systems (EIS). How do EIS support top-level executives in making strategic decisions?
10. .Discuss the concept of user-centered design in multimedia applications. How can designers ensure that the user interface and experience meet the needs and preferences of diverse users?

UNIT-V

MULTIPLE CHOICE QUESTIONS

1.What does multimedia refer to?

a) A single form of media
b) Combination of multiple forms of media
c) A type of computer hardware
d) A programming language

2. Which of the following is a multimedia tool used for vector graphics?

a)Photoshop b) llustrator
c) Premiere Pro d) After Effects

3.E-commerce involves:

a) Traditional in-person transactions only
b) Online buying and selling of goods and services
c) Face-to-face communication only
d) Local advertising

4.Data processing involves:

a) Storing data only
b) Manipulating and organizing data
c) Deleting data
d) Encrypting data

5.The department responsible for managing and maintaining information systems is:

a) Sales department
b) Marketing department
c) Human Resources department
d) Information Systems department

6.Which type of information system supports day-to-day operations?

a) Decision Support System (DSS)
b) Executive Information System (EIS)
c) Transaction Processing System (TPS)
d) Expert System (ES)

7.The process of developing, maintaining, and modifying information systems is called:

a) A System Analysis b) System Design
c) SDLC d) System Testing

8.Which phase of the SDLC involves gathering and understanding requirements from stakeholders?

a) Planning b) Analysis
c) Design d) Implementation

9.Which information system helps middle management make semi-structured decisions?

a) Management Information System (MIS)
b) Transaction Processing System (TPS)
c) Decision Support System (DSS)
d) Expert System (ES)

10.What is a primary advantage of using multimedia in presentations?

a) A reduced complexity
b) Limited engagement
c) Enhanced visual and auditory appeal
d) Text-only content

11.Which tool is best suited for editing and assembling video clips?

a) Adobe Photoshop b) Microsoft Word
c) Adobe Premiere Pro d) Microsoft Excel

12.What is the main purpose of a Transaction Processing System (TPS)?

a) Long-term planning b) Generating reports
c) Supporting day-to-day operations d) Analyzing trends

13.Which type of e-commerce focuses on business-to-consumer transactions?

a) B2B (Business-to-Business)
b) C2C (Consumer-to-Consumer)
c) B2C (Business-to- Consumer)
d) P2P (Peer-to-Peer)

14.In the context of the System Development Life Cycle (SDLC), what does the "Implementation" phase involve?

a) Gathering requirements
b) Creating prototypes
c) Writing code and developing the system

d) Documenting system specifications

15.What is the primary role of an Executive Information System (EIS)?

a) Supporting operational decisions
b) Analyzing complex data
c) Providing top management with strategic information
d) Managing transactional data

16.Which information system is designed to capture and store data about each transaction?

a) Decision Support System (DSS)
b) Expert System (ES)
c) Transaction Processing System (TPS)
d) Management Information System (MIS)

17.The process of converting raw data into a more meaningful form is called:

a) Data analysis b) Data interpretation
c) Data processing d) Data transformation

18.What is the main purpose of a Decision Support System (DSS)?

a) Processing transactions
b) Providing information to top management

c) Automating routine tasks
d) Managing employee records

19.Which phase of the System Development Life Cycle (SDLC) involves creating detailed specifications for the system?
a) Planning b) Analysis
c) Design d) Implementation

20.What is the primary focus of the "Maintenance" phase in the System Development Life Cycle (SDLC)?
a) Developing prototypes
b) Fixing bugs and enhancing the system
c) Gathering requirements
d) Writing code

21.Which type of e-commerce involves online auctions?
a) B2B b) C2C
c) B2C d) C2B

22.In which phase of the SDLC does testing and quality assurance occur?
a) Planning b) Analysis
c) Design d) Testing

23.Which information system is designed to replicate human decision-making and expertise?

a) Management Information System (MIS)
b) Expert System (ES)
c) Decision Support System (DSS)
d) Transaction Processing System (TPS)

24.Which phase of the System Development Life Cycle (SDLC) involves identifying the problem to be solved?

a) Planning b) Analysis
c) Design d) Implementation

25.What is the purpose of the "Planning" phase in the System Development Life Cycle (SDLC)?

a) Developing prototypes
b) Creating detailed designs
c) Identifying project scope and objectives
d) Writing code

ANSWERS

1.b, 2.b, 3.b, 4.b, 5.d, 6.c, 7.c, 8.b, 9.a, 10.c, 11.c, 12.c, 13.c, 14.c,15.c, 16.c, 17.c, 18.b, 19.c, 20.b, 21.b, 22.b, 23.b, 24.b, 25.c.

FIVE-MARK QUESTIONS

1. Explain the difference between structured programming and object-oriented programming. Provide examples of programming languages that represent each paradigm.
2. Describe the software development life cycle and explain the significance of each phase.
3. Compare and contrast high-level languages and low-level languages in terms of abstraction, readability, and ease of programming.
4. What is the role of a compiler and an interpreter in the process of programming? Discuss the advantages and disadvantages of each approach.
5. Explain the concepts of encapsulation, inheritance, and polymorphism in objectoriented programming with relevant examples.
6. Discuss the importance of debugging in programming. Describe common types of programming errors and methods for locating and fixing them.
7. How does modularization contribute to efficient programming? Provide examples of how you would break down a complex problem into smaller modules.

8. Compare procedural programming and functional programming paradigms. Highlight the key features and advantages of each approach.
9. Describe the concept of algorithm design. Provide an example of designing an algorithm for solving a specific problem.
10. Explain the importance of code documentation in programming. Discuss how welldocumented code can benefit both developers and future maintainers.

TEN-MARK QUESTIONS

1. Elaborate on the principles of object-oriented programming, including abstraction, encapsulation, inheritance, and polymorphism.
2. How do these principles contribute to software development?
3. Describe the various phases of the programming process, from problem identification and algorithm design to implementation and testing. Discuss the challenges developers may face at each phase.
4. Discuss the advantages and disadvantages of using a high-level programming language over a low-level programming language. Consider factors such as development time, execution speed, and code portability.

5. Explain the concept of modular programming. Provide a step-by-step example of how you would break down a real-world problem into smaller modules, illustrating the interactions between modules.
6. Compare and contrast compiled languages and interpreted languages. Discuss the tradeoffs between these two approaches and provide examples of languages that fall into each category.
7. Describe the concept of software debugging. Discuss common types of programming errors, including syntax errors, logical errors, and runtime errors. Provide strategies for effectively debugging code.
8. Discuss the concept of software reusability. How does object-oriented programming promote code reuse, and why is reusability important for efficient software development?
9. Explain the role of data structures in programming. Provide examples of different data structures and discuss how their choice can impact the efficiency of algorithms.
10. Discuss the concept of dynamic programming and its importance in solving optimization problems. Provide an example of a problem that can be solved using dynamic programming techniques.

11. Describe the criteria for selecting a programming language for a specific project. Consider factors such as the project's scope, requirements, development team's expertise, and long-term maintainability.

IMAGE EDITING TOOL

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UNIT I

MULTIPLE CHOICE QUESTIONS

1. What is the purpose of Adobe Bridge in Photoshop CS5?
a) To create new documents
b) To organize and manage image files
c) To apply filters to images
d) To edit text in images

2. Which of the following is NOT a screen mode in Photoshop CS5?
a) Standard Screen Mode
b) Full Screen Mode with Menu Bar
c) Quick Screen Mode
d) Presentation Mode

3.How can you revert a document to its last saved state in Photoshop CS5?
a) Press Ctrl + Z
b) Close and reopen the document
c) Use the "Revert" option under the File menu
d) Shake the computer mouse

4. Which tool in the Tools Panel is used for creating vector shapes and paths?

a) Brush Tool b) Pen Tool
c) Eraser Tool d) Clone Stamp Tool

5.Which workspace in Photoshop CS5 is designed for users who primarily work with painting and retouching tools?
a) Design b) Motion
c) Painting d) 3D

6.What does the keyboard shortcut Ctrl + S do in Photoshop CS5?
a) Opens a new document b) Saves the current document
c) Closes the application d) Undoes the last action

7. Which option allows you to align layers based on their horizontal and vertical centers in Photoshop CS5?
a) Align Bottom Edges b) Align to Selection
c) Align Vertical Centers d) Align Distribute

8.What is the purpose of the Dodge Tool in Photoshop CS5?
a) To add color to an image
b) To remove unwanted objects
c) To sharpen image details
d) To lighten areas of an image

9. How can you create a new workspace in Photoshop CS5?
a) By right-clicking on the canvas
b) By selecting a preset from the View menu
c) By dragging panels and rearranging them
d) By opening a new document

10.What is the function of the Eyedropper Tool in Photoshop CS5?
a) To measure distances in an image
b) To select and move objects
c) To copy and paste elements
d) To sample colors from an image

11.Which workspace in Photoshop CS5 is best suited for creating and editing video content?
a) Motion b) Photography
c) Painting d) Design

12.Which option lets you adjust the opacity of a layer in Photoshop CS5?
a) Layer Style b) Blending Mode
c) Opacity Slider d) Layer Mask

13. What is the primary function of the Move Tool in Photoshop CS5?
a) To create selections
b) To move and arrange layers
c) To draw shapes and paths
d) To apply filters and effects

14.What is the purpose of the Crop Tool in Photoshop CS5?
a) To resize an entire image
b) To adjust the color balance
c) To remove unwanted areas from an image
d) To add text and annotations

15.Which option allows you to rotate the canvas view in Photoshop CS5?
a) Rotate Tool b) Transform Tool
c) Rotate View Tool d) Flip Horizontal

16. How can you create a new layer in Photoshop CS5?
a) By pressing Ctrl + N
b) By clicking on the New Layer button in the Layers panel
c) By selecting the Crop Tool
d) By choosing File > New

17.What is the purpose of the Healing Brush Tool in Photoshop CS5?
a) To add shadows and highlights
b) To erase portions of an image
c) To remove blemishes and imperfections
d) To create vector shapes

18.Which workspace in Photoshop CS5 is designed for creating 3D objects and scenes?
a) 3D b) Design
c) Motion d) Photography

19.What does the keyboard shortcut Ctrl + Z do in Photoshop CS5?
a) Opens the Zoom Tool b) Undoes the last action
c) Zooms out of the image d) Saves the document

20.What is the purpose of the Gradient Tool in Photoshop CS5?
a) To create smooth color transitions
b) To add text to an image
c) To draw straight lines
d) To apply artistic filters

21.Which option allows you to adjust the size and hardness of the brush in Photoshop CS5?

a) Brush Mode
b) Opacity Slider
c) Flow Control
d) Brush Preset Picker

22.How can you create a duplicate of a layer in Photoshop CS5?
a) By pressing Ctrl + D
b) By selecting the Duplicate Layer option from the Layer menu
c) By dragging the layer to the New Layer button
d) By clicking on the Background layer

23.What is the function of the Clone Stamp Tool in Photoshop CS5?
a) To duplicate a layer
b) To copy and paste elements
c) To create a mirror image
d) To sample pixels from one area and apply them to another

24.Which tool in Photoshop CS5 is used to add text to an image?
a) Text Tool
b) Type Mask Tool
c) Pen Tool
d) Move Tool

25.What is the purpose of the Zoom Tool in Photoshop CS5?

a) To adjust the zoom level of the canvas
b) To switch between different screen modes
c) To crop and resize the image
d) To duplicate a layer

ANSWERS

1.b, 2.c, 3.c, 4.b, 5.c, 6.b, 7.c, 8.d, 9.c, 10.d, 11.a, 12.c, 13.b, 14.c,15.c, 16.b, 17.c, 18.a, 19.b, 20.a, 21.d, 22.c, 23.d, 24.a, 25.a

FIVE-MARK QUESTIONS

1. Describe the process of creating a new document in Photoshop CS5, including the key settings you can specify.
2. Explain the concept of screen modes in Photoshop CS5 and provide a brief overview of each mode's functionality.
3. Discuss the role of Adobe Bridge in Photoshop CS5. How does it help users manage and organize their image files?
4. List and briefly explain three commonly used tools in the Tools Panel of Photoshop CS5.

5. What is the purpose of workspaces in Photoshop CS5? Explain how users can create and customize workspaces to suit their needs.
6. Describe the steps to open an existing image using Adobe Bridge in Photoshop CS5.
7. Explain how you can use the Move Tool to rearrange layers within a Photoshop document. Provide an example scenario.
8. What is the purpose of the Crop Tool in Photoshop CS5? How can users utilize this tool to enhance their images?
9. Discuss the significance of keyboard shortcuts and menu settings in Photoshop CS5. How can these features improve a user's workflow?
10. Explain the process of customizing preferences in Photoshop CS5. What types of settings can be adjusted to tailor the application to individual preferences?

TEN-MARK QUESTIONS

1. Compare and contrast the Quick Screen Mode and Presentation Mode in Photoshop CS5. How do these modes affect the user interface and what are their intended uses?

2. Provide a detailed explanation of the steps involved in opening an image using Adobe Bridge in Photoshop CS5. Highlight the advantages of using Adobe Bridge for this purpose.
3. Describe the purpose and functionality of the Brush Tool, Clone Stamp Tool, and Healing Brush Tool in Photoshop CS5. Provide examples of situations where each tool would be useful.
4. Explain the process of selecting a workspace and customizing it in Photoshop CS5. How
5. can users save their custom workspaces for future use?
6. Discuss the role of panels in Photoshop CS5. How do users interact with panels, and how can they be organized and customized to enhance productivity?
7. Describe the steps to revert a document to its last saved state in Photoshop CS5. Explain the precautions users should take when using this feature.
8. Discuss the significance of keyboard shortcuts in Photoshop CS5. Provide examples of commonly used keyboard shortcuts and explain how they can speed up a user's workflow.
9. Explain the process of saving a document in Photoshop CS5. What are the different file formats

available, and how should users choose the appropriate format for their needs?

10. Compare and contrast the concepts of opacity and blending modes in Photoshop CS5. How do these attributes affect the appearance of layers within an image?
11. Describe the various options available for customizing preferences in Photoshop CS5.
12. How can users optimize their workspace, performance, and tool settings to align with their creative process

UNIT-II

MULTIPLE CHOICE QUESTIONS

1. Bitmap images are composed of:
a) Pixels b) Paths
c) Vectors d) Layers

2. Which type of image is resolution-independent and can be scaled without losing quality?
a) Bitmap b) JPEG
c) Vector d) PNG

3.What does image resolution refer to?
a)The number of colors in an image

b) The size of an image in megabytes
c) The dimensions of an image
d) The number of pixels per inch (PPI) in an image

4. Which color mode is used for printing purposes?
a) RGB b) Grayscale
c) CMYK d) Indexed Color

5.Which tool is used to adjust the overall color balance of an image?
a) Brush Tool b) Eraser Tool
c) Color Picker d) Color Balance Tool
6. Which file format supports transparency and is suitable for images with sharp edges and text?
a) JPEG b) GIF
c) PNG d) TIFF

7.What is the purpose of creating a PDF file in Photoshop CS5?
a)To print images
b) To create animations
c) To save vector graphics
d) To share documents across different platforms

8.Which tool is used to make a selection based on a specific shape?

a) Marquee Tool b) Move Tool
c) Lasso Tool d) Brush Tool

9. What is the purpose of transforming a selection in Photoshop CS5?
a) To apply filters
b) To change the selection's shape or size
c) To duplicate the selection
d) To move the selection to a different layer

10.Which tool is used to modify an existing selection by adding or subtracting areas?
a) Crop Tool b) Brush Tool
c) Magic Wand Tool d) Rectangular Marquee Tool

11.Which color mode is used for displaying images on digital screens?
a) Grayscale b) RGB
c) CMYK d) Lab Color

12.When creating a PDF file in Photoshop CS5, what are the advantages of using the PDF format?
a) It preserves layers and transparency
b) It reduces file size
c) It supports animation
d) It allows 3D modeling

13.Which selection tool is best suited for making complex selections with smooth edges?
a) Magic Wand Tool b) Lasso Tool
c) Polygonal Lasso Tool d) Quick Selection Tool

14.Which transform option allows you to rotate a selection in Photoshop CS5?
a) Scale b) Warp
c) Rotate d) Skew

15.Which color mode is used when working with black and white images in Photoshop CS5?
a) RGB b) Grayscale
c) CMYK d) Indexed Color

16.How does saving an image in the JPEG format affect image quality?
a) It maintains the highest quality
b) It compresses the image, potentially reducing quality
c) It supports transparency
d) It is suitable for images with sharp edges

17.What is the purpose of creating selections in Photoshop CS5?
a) To delete image content

b) To apply filters
c) To isolate parts of an image for editing
d) To change the canvas size

18.What is the primary advantage of using vector images over bitmap images?
a) Smaller file size
b) Higher color depth
c) Compatibility with digital screens
d) Scalability without loss of quality

19.Which selection tool is best used for making freeform selections with irregular edges?
a) Marquee Tool b) Magic Wand Tool
c) Lasso Tool d) Polygonal Lasso Tool

20.Which transform option allows you to distort the shape of a selection in Photoshop CS5?
a) Skew b) Rotate
c) Scale d) Warp

21.Which color mode is used for images that will be used in print publications?
a) RGB b) Grayscale
c) CMYK d) Duotone

22.What does the Magic Wand Tool do in Photoshop CS5?

a) Adds text to the image
b) Removes background colors
c) Makes a selection based on similar colors
d) Creates gradient fills

23.When transforming pixels, what does the Skew option allow you to do?

a) Rotate the pixels
b) Stretch or compress the pixels horizontally or vertically
c) Warp the pixels using a mesh
d) Flip the pixels horizontally or vertically

24.What is the main difference between bitmap and vector images?

a) Bitmap images are resolution-independent, while vector images are not.
b) Bitmap images are composed of paths, while vector images are composed of pixels.
c) Bitmap images can be scaled without losing quality, while vector images cannot.
d) Bitmap images are primarily used for digital screens, while vector images are used for print.

25.What is the purpose of the Quick Selection Tool in Photoshop CS5?
a) To quickly crop images
b) To make precise selections with smooth edges
c) To select areas based on color similarity
d) To remove backgrounds from images

ANSWERS

1.a, 2.c, 3.d, 4.c, 5.d, 6.c, 7.d, 8.a, 9.b, 10.c, 11.b, 12.a, 13.d, 14.c,15.b, 16.b, 17.c, 18.d, 19.c, 20.d, 21.c, 22.c, 23.b, 24.c, 25.c .

FIVE-MARK QUESTIONS

1. Explain the differences between bitmap and vector images. Provide examples of scenarios where each type of image is preferable.
2. Describe the process of creating a PDF file in Photoshop CS5. What are the benefits of using PDF format for sharing and printing?

3. Compare and contrast the RGB and CMYK color modes in Photoshop CS5. When is each mode typically used?
4. How can you modify an existing selection using the Lasso Tool in Photoshop CS5? Provide an example of a situation where this tool would be useful.
5. Discuss the concept of image resolution and its importance in digital imaging. How does resolution affect the quality and size of an image?
6. Explain the purpose of color adjustments in Photoshop CS5. How can users enhance or correct the color balance of an image using adjustment tools?
7. Describe the process of transforming a selection in Photoshop CS5. What transformation options are available, and how can they be used effectively?
8.Compare the JPEG and PNG file formats in Photoshop CS5. What are the advantages and disadvantages of using each format for different types of images?
9. What is the purpose of using the Magic Wand Tool in Photoshop CS5? How does it work, and what factors can affect its accuracy?
10.Explain the process of creating selections using the Marquee Tool in Photoshop CS5. How can users refine and modify selections once they are made?

TEN-MARK QUESTIONS

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1.Discuss the concept of color modes in Photoshop CS5. Describe the characteristics and use cases of the RGB, CMYK, Grayscale, and Indexed Color modes.
2.Explain the steps involved in making color adjustments in Photoshop CS5. Provide examples of situations where color adjustments would be necessary.
3.Describe the advantages and limitations of using the GIF file format in Photoshop CS5. When is it suitable to use GIF images, and what features does it support?
4.Compare and contrast the process of importing a PDF file and creating a PDF file in Photoshop CS5. How can users leverage these features for various creative and collaborative purposes?
5.Discuss the role of selections in image editing using Photoshop CS5. How do selection tools aid in the manipulation and enhancement of images?
6.Describe the concept of image resolution and its implications for printing and digital display. How can users determine the appropriate resolution for their specific projects?
7.Explain the purpose of transforming pixels in Photoshop CS5. What are the available transformation options, and how do they impact the appearance of an image?

8.Discuss the significance of different color modes in Photoshop CS5. How does each mode impact the appearance and output of images in various contexts?
9.Explain the process of modifying a selection using the Quick Selection Tool in Photoshop CS5. How can users refine selections to achieve accurate results?
10.Describe the process of creating selections using the Lasso Tool in Photoshop CS5.
11. How can users utilize this tool to create precise and custom selections for image editing?

UNIT-III

MULTIPLE CHOICE QUESTIONS

1.What panel is used to manage layers in Photoshop CS5?

a) Brushes Panel b) Layers Panel
c) Adjustment Panel d) Tools Panel Correct

2.Which feature in Photoshop CS5 allows you to combine multiple images seamlessly?
a) Layer Styles b) Blend Modes
c) Content-Aware Fill d) Opacity Adjustment Correct

3.What does the term "Opacity" refer to in Photoshop CS5?
a) The layer's visibility b) The layer's color mode
c) The layer's pixel density d) The layer's transparency level Correct

4.Which tool is commonly used for removing blemishes and imperfections from photos in Photoshop CS5?
a) Brush Tool b) Eraser Tool
c) Healing Brush Tool d)Clone Stamp Tool Correct

5.Which type of layer in Photoshop CS5 is used for non-destructive adjustments?
a) Normal Layer b) Background Layer
c) Adjustment Layer d) Fill Layer Correct

6.The "Content-Aware Fill" feature in Photoshop CS5 is used for:
a) Adding text to images
b) Changing the canvas size
c) Removing unwanted objects from images
d) Adjusting layer opacity Correct

7. What is the purpose of a layer mask in Photoshop CS5?
a) To change the color of a layer
b) To adjust the layer's opacity
c) To create a new layer
d) To control the visibility of a layer Correct

8.Which tool in Photoshop CS5 allows you to clone one part of an image onto another part?
a) Brush Tool b) Eraser Tool
c) Healing Brush Tool d) Clone Stamp Tool Correct

9.In Photoshop CS5, what is the function of the "Adjustment Layers"?
a) Merge multiple layers together
b) Apply filters to an image
c) Make non-destructive adjustments to an image
d) Add text to an image Correct

10.The term "Blend Mode" in Photoshop CS5 refers to:
a) Mixing different colors
b) Combining multiple layers
c) Adjusting image brightness
d) Changing the canvas size Correct

11.Which tool in Photoshop CS5 is used to draw freeform paths?
a) Marquee Tool b) Lasso Tool
c) Pen Tool d) Brush Tool Correct

12.What does the "Foreground Color" represent in Photoshop CS5?
a) The color of the background layer
b) The current active color for painting and filling
c) The color of the selected text
d) The color of the layer mask Correct

13.The "Eraser Tool" in Photoshop CS5 is used to:
a) Create new layers
b) Apply special effects to images
c) Remove unwanted portions of an image
d) Adjust image brightness and contrast Correct

14.Which blend mode in Photoshop CS5 often results in a subtle increase in contrast and saturation?
a) Overlay b) Multiply
c) Screen d) Difference Correct

15.What is the purpose of the "Dodge Tool" in Photoshop CS5?
a) To darken specific areas of an image
b) To lighten specific areas of an image
c) To apply filters to an image
d) To create vector shapes Correct

16.Which tool is commonly used to add color to a black and white image in Photoshop CS5?
a) Brush Tool b) Gradient Tool
c) Clone Stamp Tool d) Crop Tool Correct

17.In Photoshop CS5, the "Magic Wand Tool" is used for:
a) Drawing freeform paths
b) Making selections based on color similarity
c) Creating 3D shapes
d) Applying artistic filters Correct

18.Which type of layer in Photoshop CS5 is locked and cannot be edited directly?
a) Background Layer b) Adjustment Layer
c) Text Layer d) Smart Object Layer Correct

19.The "Gradient Tool" in Photoshop CS5 is used to:
a) Blur parts of an image
b) Apply patterns to an image
c) Create smooth color transitions
d) Add text to an image Correct

20.Which Photoshop CS5 tool is used for making precise selections by drawing around the desired area?
a) Marquee Tool b) Lasso Tool
c) Magic Wand Tool d) Brush Tool Correct

21.What is the purpose of using the "Levels" adjustment in Photoshop CS5?
a) Adding special effects to an image
b) Adjusting the layer's opacity
c) Correcting color and tonal balance
d) Creating custom brushes Correct

22.What does the "Clone Source" panel allow you to do in Photoshop CS5?
a) Change the canvas size

b) Organize layers
c) Manage brush settings
d) Adjust settings for the Clone Stamp Tool Correct

23.The "Smudge Tool" in Photoshop CS5 is often used to:
a) Apply text effects
b) Blur the background
c) Create 3D shapes
d) Blend and smudge colors in an image Correct

24.How can you increase the intensity of a brush stroke in Photoshop CS5?
a) By decreasing the brush opacity
b) By selecting a lower blend mode
c) By increasing the brush hardness
d) By adjusting the brush flow Correct

25.What is the purpose of the "Layer Styles" in Photoshop CS5?
a) To organize layers in a folder
b) To apply filters to an image
c) To add special effects to a layer
d) To change the canvas size Correct

ANSWERS

1.b, 2.c, 3.d, 4.c, 5.c, 6.c, 7.d, 8.d, 9.c, 10.b, 11.c, 12.b, 13.c, 14.a,15.b, 16.a, 17.b, 18.a,
19.b, 20.b, 21.c, 22.d, 23.d, 24.d, 25.c

FIVE MARK QUESTIONS

1. Explain the concept of Blend Modes in Photoshop CS5.
2. Provide examples of two blend modes and describe their effects on layers.
3. How does masking work in Photoshop CS5?
4. Describe the process of creating a layer mask and its significance in non-destructive editing.
5. Discuss the role of Adjustment Layers in image editing using Photoshop CS5.
6. Give examples of three different types of adjustment layers and explain how they can
7. enhance an image.
8. Elaborate on the Content-Aware feature in Photoshop CS5. How does it work, and
9. what are its practical applications in image manipulation?
10. Compare and contrast the Brush Tool and the Clone Stamp Tool in Photoshop CS5.

11. When would you use each tool, and how do they differ in their functionality?

TEN MARK QUESTIONS

1. Describe the process of working with layers in Photoshop CS5, from creating a new layer to adjusting its opacity and blend mode. Provide a step-by-step explanation using a practical example.
2. Explain the concept of masking in Photoshop CS5.
3. Detail the steps to create a layer mask and provide a comprehensive example of how masking can be used for advanced photo retouching.
4. Discuss the significance of setting the current foreground and background colors in Photoshop CS5.
5. How does this choice impact various tools and functions in the software? Provide real-world scenarios.
6. Explore the Drawing, Painting, and Retouching tools in Photoshop CS5. Select one tool from each category, describe its functionality, and provide a tutorial-like example of how it can be used creatively.
7. In Photoshop CS5, explain the hierarchy and purpose of different layer types.

8. Detail the differences between Normal Layers, Adjustment Layers, and Smart Object Layers, providing use cases for each.
9. Discuss the role of blending modes in Photoshop CS5 and their impact on image composition.
10. Select four different blend modes and provide visual examples of how they affect the appearance of layers.
11. Explain the concept of masking in Photoshop CS5.
12. Detail the creation of a layer mask from start to finish, and then illustrate its significance in preserving image integrity during non-destructive edits.
13. Explore the concept of retouching in Photoshop CS5. Choose three retouching tools, such as the Healing Brush, Patch Tool, and Spot Healing Brush, and provide stepby-step instructions for using each tool effectively.
14. Describe the process of using Adjustment Layers to fine-tune color and tone in an image in Photoshop CS5. Provide a comprehensive tutorial that covers adjustments like Levels, Curves, and Hue/Saturation.
15. Explain the purpose and practical use of the Clone Source panel in Photoshop CS5. Illustrate its relevance when working with the Clone Stamp Tool

and Healing Brush Tool through a series of examples.

16. Discuss the significance of the Content-Aware feature in Photoshop CS5. Compare and contrast Content-Aware Fill, Content-Aware Scale, and Content-Aware Move, providing insights into their applications.
17. Explore the Painting Tools in Photoshop CS5, such as the Brush Tool and Gradient Tool. Detail how these tools can be used creatively for digital painting and image enhancement.
18. Elaborate on the concept of working with layers in Photoshop CS5, emphasizing techniques for layer organization and manipulation. Provide step-by-step instructions for merging, grouping, and rearranging layers.
19. Describe the process of creating a composite image using multiple layers and blending modes in Photoshop CS5. Walk through the steps to combine different elements into a cohesive final image.

UNIT IV

MULTIPLE-CHOICE QUESTIONS

1. What are Layer Styles in Photoshop primarily used for?
a) Organizing layers in groups
b) Applying color adjustments
c) Adding non-destructive effects to layers
d) Creating paths and shapes

2. Which feature in Photoshop allows you to work with layer effects in a flexible and customizable manner?
a) Layer Masks b) Adjustment Layers
c) Layer Styles d) Clipping Masks

3.Smart Objects in Photoshop are best described as:
a) Images with reduced resolution
b) Layers with filters applied
c) Layers that can be scaled without loss of quality
d) Layers with applied layer masks

4. What is the main advantage of using Smart Objects when applying filters to a layer?
a) Filters are applied destructively

b) Filters can be adjusted non-destructively
c) Filters are applied directly to the image pixels
d) Filters cannot be applied to Smart Objects

5.Which Photoshop feature allows you to save and reuse a combination of layer styles?
a) Layer Effects b) Blending Modes
c) Layer Presets d) Filter Gallery

6. Filters in Photoshop can be used to:
a) Merge layers together
b) Change the canvas size
c) Apply various effects to an image
d) Create new layer groups

7.What happens when you convert a layer to a Smart Object in Photoshop?
a) The layer becomes rasterized
b) The layer's pixel information is discarded
c) The layer becomes non-editable
d) The layer can be transformed without loss of quality

8.Which type of layer allows you to change the transparency of the layer nondestructively?
a) Smart Layer b) Adjustment Layer

c) Text Layer d) Filter Layer

9.In Photoshop, blending modes are often used with:
a) Filters b) Layer masks
c) Adjustment layers d) Layer styles

10.Which type of layer is often used to apply filters to a specific area of an image?
a) Smart Object b) Adjustment Layer
c) Group Layer d) Clipping Mask

11.Which term refers to the order in which Photoshop applies layer effects to a stack of layers?
a) Stacking Order b) Layer Hierarchy
c) Blend Sequence d) Layer Style Order

12.The Filter Gallery in Photoshop provides a collection of:
a) Color adjustments b) Layer styles
c) Filters with customizable settings d) Stock images

13.Which feature allows you to edit a filter's parameters after it's been applied to a layer in Photoshop?
a) Smart Filters b) Filter Styles
c) Layer Styles d) Filter Presets

14.What is the purpose of the "Layer Effects" option in Photoshop?
a) It allows you to merge layers together
b) It lets you organize layers into groups
c) It applies various adjustments to layers
d) It applies non-destructive effects to layers

15.When using Smart Filters, how can you bring back the original image appearance after applying a filter?
a) By flattening the image
b) By deleting the Smart Filter
c) By using the Filter Gallery
d) By adjusting the blending mode

16.Which type of layer can contain multiple images or objects, maintaining their individual properties?
a) Smart Layer b) Smart Object
c) Adjustment Layer d) Text Layer

17.The "Overlay" blend mode is often used to:
a) Completely hide a layer
b) Apply subtle shading and highlights
c) Turn off layer effects
d) Group multiple layers

18.Which option would you use to apply a gradient overlay effect to a layer in Photoshop?
a) Layer Styles b) Adjustment Layers
c) Filter Gallery d) Blending Modes

19.Filters in Photoshop can be found under which menu?
a) Layer b) Edit
c) Image d) View

20.What is the purpose of a "Layer Mask" in Photoshop?
a) To create a new layer
b) To organize layers in groups
c) To apply filters to a layer
d) To control the visibility of a layer

21.Which type of layer allows you to change the color and tone of an image without permanently altering the original pixels?
a) Smart Layer b) Smart Object
c) Adjustment Layer d) Filter Layer

22.How does using Smart Objects affect the image quality when scaling and transforming?
a) It improves image quality

b) It reduces image quality
c) It has no impact on image quality
d) It changes image resolution

23.Which option would you use to save a combination of layer styles for future use in Photoshop?
a) Layer Effects b) Layer Presets
c) Filter Gallery d) Adjustment Layers

24.Which filter in Photoshop is commonly used to add texture and grain to an image?
a) Gaussian Blur b) Noise
c) Blur d) Sharpen

25.Which type of layer is typically used for adding and formatting text in Photoshop?
a) Smart Layer b) Adjustment Layer
c) Text Layer d) Filter Layer

ANSWERS

1.c, 2.c, 3.c, 4.b, 5.c, 6.c, 7.d, 8.b, 9.d, 10.d, 11.d, 12.c, 13.a, 14.d,15.b, 16.b, 17.b, 18.a, 19.c, 20.d, 21.c, 22.a, 23.b, 24.b, 25.c.

FIVE-MARK QUESTIONS

1. Describe the concept of "non-destructive editing" as it applies to both layer styles and smart objects in Photoshop.
2. How does this approach benefit designers when working on complex projects?
3. Compare and contrast the usage of layer masks and smart objects for applying and modifying filters in Photoshop. Provide examples of scenarios where each technique would be preferred.
4. Explain the process of creating a new layer style preset in Photoshop.
5. How can these presets save time and enhance consistency in design projects?
6. Discuss the role of blending modes when working with layer styles. Provide examples of blending modes and describe how they can impact the appearance of layers.
7. How do Smart Filters differ from traditional filters in Photoshop? Elaborate on the advantages of using Smart Filters and provide an example workflow involving their usage.
8. Illustrate a step-by-step process of how you can convert a layer into a Smart Object and then apply filters to it non-destructively. Highlight the benefits of this approach.

9. Provide a detailed explanation of how you would use clipping masks to apply a filter to a specific area of an image. Why is this technique useful in design workflows?
10. Describe the procedure for creating a customized layer style in Photoshop. Include the components that can be adjusted and how they contribute to the overall visual effect.
11. Discuss the significance of using layer effects such as drop shadow, bevel and emboss,and gradient overlay in design projects.
12. How do these effects enhance the visual appeal of an image?
13. Explain the term "Layer Effects Order" and how it influences the appearance of layers with multiple layer styles applied. Provide an example to demonstrate the concept.

TEN-MARK QUESTIONS

1. Smart Objects are a fundamental feature in Photoshop.
2. Discuss their purpose, benefits, and drawbacks when applied to a professional design workflow. Provide examples of scenarios where using Smart Objects is essential.

3. Describe in detail the process of applying a complex layer style combination to a text layer in Photoshop. Include a variety of effects and their settings, explaining how they work together.
4. "Smart Filters offer an innovative way to apply filters non-destructively."
5. Explain this statement, detailing the steps to apply and modify a Smart Filter. Provide examples of filters that are particularly suited for this approach.
6. Compare and contrast the application of filters through Smart Filters and directly to image layers.
7. Discuss the advantages and disadvantages of each approach, citing scenarios where one is preferable over the other.
8. Blending modes play a crucial role in the appearance of layers in Photoshop.
9. Choose three blending modes and explain how they interact with underlying layers when layer styles and filters are applied.
10. Smart Objects allow for lossless editing and non-destructive transformations.
11. Explain these benefits with examples, showcasing how designers can make changes without compromising image quality.
12. Create a comprehensive guide on how to create a realistic 3D text effect using layer styles and

filters in Photoshop. Include the steps for creating depth, applying textures, and using lighting effects.

13. Discuss the concept of "Global Light" within the context of layer styles in Photoshop.
14. How does adjusting the Global Light settings affect the appearance of multiple layer effects?
15. Explain the process of creating a customized layer preset that combines various layer styles and effects.
16. Discuss how such presets can streamline design workflows and maintain consistency.

UNIT V

MULTIPLE-CHOICE QUESTIONS

1.What feature in Photoshop CS5 allows you to record and playback a series of tasks?
a) Filters b) Layers
c) Actions d) Masks Correct

2.Which Photoshop CS5 feature is used to automate repetitive tasks?
a) Filters b) Automate Commands
c) Blend Modes d) Adjustment Layers Correct

3.Which menu in Photoshop CS5 contains options related to 3D manipulation?
a) Edit b) View
c) 3D d) Layer Correct

4.What does the timeline in Photoshop CS5 allow you to create?

a) 3D models b) Animated GIFs
c) Layer masks d) Print layouts Correct

5.Which of the following is NOT a step in the printing process in Photoshop CS5?
a) Choosing paper type b) Selecting color mode
c) Exporting as GIF d)Adjusting print settings Correct

6.To create a new action in Photoshop CS5, you should go to which menu?
a) File b) Edit
c) Window d) Layer Correct

7.Which type of file format is commonly used for 3D models in Photoshop CS5?
a) PNG b) JPG
c) PSD d) OBJ

8.In Photoshop CS5, which tool is used to create animations frame by frame?
a) Brush Tool b) Clone Stamp Tool
c) Pen Tool d) Timeline Tool

9.When preparing an image for printing in Photoshop CS5, which color mode is typically used for professional printing?

a) RGB b) CMYK
c) Grayscale d) Lab

10.Which option in Photoshop CS5 allows you to adjust the sharpness and clarity of an image?

a) Exposure b) Vibrance
c) Levels d) Sharpen

11.What is the primary purpose of the "Batch" command in Photoshop CS5?

a) Creating 3D objects
b) Automating repetitive tasks on multiple files
c) Adding filters to images
d) Adjusting layer opacity

12.In 3D modeling within Photoshop CS5, what is the purpose of the "Extrude" tool?

a) Adding lighting effects
b) Creating 2D shapes
c) Adding text
d) Giving depth to 2D shapes

13.Which panel in Photoshop CS5 is commonly used for organizing and managing animation frames?

a) Layers b) Channels

c) History d) Swatches

14.Which file format is best suited for saving an image with a transparent background in Photoshop CS5?

a) JPEG b) TIFF

c) PNG d) BMP

15.When preparing an image for large format printing in Photoshop CS5, what is an important consideration?

a) Low resolution b) High compression

c) Image size in pixels d) Color profile

16.How does the "Dropper" tool in Photoshop CS5 assist in the printing process?

a) It adds special effects to images.

b) It selects the background color.

c) It samples colors for accurate printing.

d) It crops images.

17.In Photoshop CS5, what is the purpose of the "Layer Mask"?

a) To merge multiple layers

b) To delete layers

c) To apply filters
d) To hide or reveal parts of a layer

18.What is the primary function of the "History" panel in Photoshop CS5?
a) To track changes made to an image
b) To store image files
c) To create animations
d) To organize layers

19.Which color mode is used for images intended for web display in Photoshop CS5?
a) RGB b) CMYK
c) Grayscale d) Lab

20.What does the "Merge Layers" option in Photoshop CS5 do?
a) It combines multiple layers into one.
b) It duplicates a layer.
c) It deletes a layer.
d) It renames a layer.

21.Which tool is used for precise selections in Photoshop CS5?
a) Brush Tool b) Lasso Tool
c) Magic Wand Tool d) Pen Tool Correct

22.In Photoshop CS5, what does the "Puppet Warp" feature allow you to do?

a) Apply 3D effects b) Create animations

c) Distort and reshape images d) Merge layers

23.What is the primary function of the "Brush Tool" in Photoshop CS5?

a) Adding text b) Painting on the canvas

c) Erasing pixels d) Applying filters

24.Which Photoshop CS5 feature is used to remove unwanted elements from a photo?

a) Healing Brush Tool b) Crop Tool

c) Brush Tool d) Dodge Tool

25.What does the "Color Balance" adjustment in Photoshop CS5 allow you to do?

a) Change an image's size b) Adjust the overall color tones

c) Crop an image d) Create 3D effects

ANSWERS

1.c, 2.b, 3.c, 4.b, 5.c, 6.b, 7.d, 8.a, 9.b, 10.d, 11.b, 12.d, 13.a, 14.c,15.d, 16.c, 17.d, 18.a, 19.a, 20.a, 21.d, 22.c, 23.b, 24.a, 25.b.

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FIVE-MARK QUESTIONS

1. Explain the concept of "Actions" in Photoshop CS5 and how they can streamline the editing process.
2. Describe at least three examples of tasks that can be automated using "Automate Commands" in Photoshop CS5.
3. What are the key features and tools available for working with 3D objects and scenes in Photoshop CS5?
4. Discuss the steps involved in creating a simple animation using the timeline feature in Photoshop CS5.
5. How does the process of printing in Photoshop CS5 differ from simply viewing images on a screen? Highlight important considerations.
6. Describe the importance of selecting the appropriate color mode (e.g., RGB, CMYK) when working on images in Photoshop CS5. Provide examples of scenarios where each mode is preferred.
7. Explain the concept of "Layer Masks" in Photoshop CS5 and provide an example of how they can be used to achieve non-destructive editing.
8. Describe the role of blending modes in Photoshop CS5 and provide at least three examples of situations where using different blending modes would be beneficial.

9. Discuss the differences between vector and raster graphics in Photoshop CS5. When would you choose to work with each type of graphic?
10.Explain the process of preparing an image for printing in Photoshop CS5. Include details about color management, resolution, and other important considerations.

TEN-MARK QUESTIONS

1. Elaborate on the benefits and limitations of using "Actions" and "Automate Commands" in Photoshop CS5.
2. Provide real-world scenarios where each of these features can be highly effective.
3. Explain the workflow of creating a complex 3D scene in Photoshop CS5, from importing 3D models to adjusting lighting and textures.
4. Compare the process of creating frame-based animation and video timeline animation in Photoshop CS5. What are the use cases for each method?

5. Discuss color management and resolution considerations when preparing an image for printing in Photoshop CS5. How do these factors impact the final printed output?
6. Describe the concept of "layer nesting" in the context of animation within Photoshop CS5. Provide a step-by-step example of creating an animation using nested layers.
7. Discuss the various tools and techniques available in Photoshop CS5 for retouching and restoring old photographs. Provide examples of how these tools can be applied.
8. Explain the concept of "Smart Objects" in Photoshop CS5. How do they enhance non- destructive editing and scalability in designs?
9. Describe the process of creating a 3D text effect in Photoshop CS5. Include details about extrusion, materials, lighting, and positioning.
10. Discuss the importance of file formats for different purposes (e.g., web, print) in Photoshop CS5. Explain how you would choose the appropriate format based on the intended use of an image.
11. .Explain the concept of "Color Channels" in Photoshop CS5 and how they contribute to image editing and manipulation. Provide examples of when you might work with individual color changed .

ABOUT THE AUTHOR

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