

Roll. No.

O.M.R. Serial No.

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Question Booklet Number

400122

BCA (SEM.-IV) (NON-NEP) EXAMINATION, 2024

COMPUTER APPLICATION

(Computer Graphics and Multimedia Application)

[BCA-401 (N)]

Paper Code

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Question Booklet
Series

B

Time : 1 : 30 Hours

Max. Marks : 75

Instructions to the Examinee :

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.
4. Four alternative answers are mentioned for each question as - A, B, C & D in the booklet. The candidate has to choose the correct / answer and mark the same in the OMR Answer-Sheet as per the direction :

(Remaining instructions on last page)

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, उसे तुरन्त बदल लें।
4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर- A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छानना है। उत्तर को OMR उत्तर-पत्रक में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

(शेष निर्देश अन्तिम पृष्ठ पर)

SI

1. The term business graphics came into use in late :
 - (A) 1950
 - (B) 1960
 - (C) 1970
 - (D) 1990
2. Computer graphics is used in many DTP software as :
 - (A) Photoshop
 - (B) Paint brush
 - (C) Both (A) and (B)
 - (D) None of these
3. Any CRT based display must be refreshing at least times a second.
 - (A) 20
 - (B) 30
 - (C) 40
 - (D) 10
4. The standardization is needed :
 - (A) To make application programs more portable
 - (B) To increase their utility
 - (C) To allow them to use in different application environment
 - (D) All of the above
5. GKS stands for :
 - (A) Graphics Kernel System
 - (B) Graphics Kernel Stands
 - (C) Generic Kernel System
 - (D) None of these
6. GKS was developed by the :
 - (A) International standards organization
 - (B) National standard organization
 - (C) Both (A) and (B)
 - (D) None of these
7. The resolution of raster scan display is :
 - (A) Low
 - (B) High
 - (C) Medium
 - (D) None of these
8. Random scan systems are designed for :
 - (A) Line drawing application
 - (B) Pixel drawing application
 - (C) Color drawing application
 - (D) None of these

9. Grey scale images have a maximum color depth of :
- (A) 8 bit
 - (B) 16 bit
 - (C) 24 bit
 - (D) 32 bit
10. Graphics with limited features is known as :
- (A) Active graphics
 - (B) Passive graphics
 - (C) Grayscale image
 - (D) None of these
11. Computer of present time have much higher memory and storage____capacity.
- (A) Much smaller
 - (B) Much bigger
 - (C) Much slower
 - (D) None of these
12. CRT means :
- (A) Common ray tube
 - (B) Cathode ray tube
 - (C) Common ray tube
 - (D) None of these
13. Refresh CRT consist of :
- (A) Glass wrapper
 - (B) The phosphor viewing surface
 - (C) The electron gun assembly
 - (D) All of the above
14. The amount of time the phosphor produce light or shine is controlled by chemical composition of the phosphor. This is known as :
- (A) Persistence
 - (B) Resistance
 - (C) Generators
 - (D) None of these
15. The electron beam in a color picture tube is refreshed_____ in a second to make video realistic.
- (A) 15 times
 - (B) 25 times
 - (C) 35 times
 - (D) 45 times
16. DUST means :
- (A) Direct view storage tube
 - (B) Domain view storage tube
 - (C) Direct view store tube
 - (D) None of these

17. Cyan color is produced when the blue and green are activated :
- (A) Equally
 - (B) Unequally
 - (C) Both (A) and (B)
 - (D) None of these
18. Which technique of color CRT is used for production of realistic image?
- (A) Shadow mask method
 - (B) Beam penetration method
 - (C) Both (A) and (B)
 - (D) None of these
19. In which method of CRT, convergence problem occur?
- (A) Beam penetration method
 - (B) Shadow mask method
 - (C) Both (A) and (B)
 - (D) None of these
20. Beam penetration method is used in :
- (A) Random scan system
 - (B) Raster scan system
 - (C) Both (A) and (B)
 - (D) None of these
21. Shadow mask method is used in :
- (A) Random scan system
 - (B) Raster scan system
 - (C) Both (A) and (B)
 - (D) None of these
22. Graphics data is computed by processor in form of :
- (A) Electrical signals
 - (B) Analog signals
 - (C) Digital signals
 - (D) None of these
23. An example of impact device is :
- (A) Electrostatic printer
 - (B) Inkjet printer
 - (C) Line printer
 - (D) Laser printer
24. To generate the characters , which are required :
- (A) Hardware
 - (B) Software
 - (C) Both (A) and (B)
 - (D) None of these

25. CMYK model are used for :
- (A) Computer display
 - (B) Printing
 - (C) Painting
 - (D) None of these
26. The intersection of three primary RGB color produces :
- (A) White color
 - (B) Black color
 - (C) Magenta color
 - (D) Blue color
27. The intersection of primary CMYK color produces :
- (A) White color
 - (B) Black color
 - (C) Cyan color
 - (D) Magenta color
28. The RGB model display a much percentage of the visible band as compared to CMYK :
- (A) Lesser
 - (B) Larger
 - (C) Medium
 - (D) None of these
29. The Cohen-Sutherland algorithm divides the two-dimensional space in how many regions?
- (A) 4
 - (B) 8
 - (C) 9
 - (D) 23
30. Each bit represent :
- (A) One color
 - (B) Two color
 - (C) Three color
 - (D) None of these
31. RGB true color model has _____ color depth.
- (A) 24 bit
 - (B) 32 bit
 - (C) 64 bit
 - (D) None of these
32. Which one of the following is the most commonly used and basic input device?
- (A) Mouse
 - (B) Printer
 - (C) Scanner
 - (D) Keyboard

33. Solid pattern in random scan display is _____ to fill.
- (A) Difficult
 - (B) Easy
 - (C) Not fill
 - (D) None of these
34. Raster scan is _____ expensive than random scan.
- (A) More
 - (B) Less
 - (C) Both (A) and (B)
 - (D) None of these
35. Two basic technique for producing color display with a CRT are :
- (A) Shadow mask and random scan
 - (B) Beam penetration method and shadow mask method
 - (C) Random scan and raster scan
 - (D) None of these
36. In beam penetration method of color CRT, two layer of phosphor coated are :
- (A) Red and blue
 - (B) Red and green
 - (C) Blue and green
 - (D) None of these
37. The process of displaying 3D into a 2D display unit is called as :
- (A) Resolution
 - (B) Projection
 - (C) Rasterization
 - (D) Transformation
38. A shadow mask CRT has _____ phosphor color dots at each pixel position.
- (A) 1
 - (B) 2
 - (C) 3
 - (D) None of these
39. Which color is produced with the green and red dots only?
- (A) Blue
 - (B) Yellow
 - (C) Magenta
 - (D) White
40. Which color is produced with the blue and red dots?
- (A) Blue
 - (B) Yellow
 - (C) Magenta
 - (D) White

41. TIFF (tagged image file format)are used for :
- (A) Vector graphics
 - (B) Bitmap
 - (C) Both (A) and (B)
 - (D) None of the above
42. EPS means :
- (A) Entire post script
 - (B) Entire post scale
 - (C) Encapsulated post script
 - (D) None of the above
43. DDA stands for :
- (A) Direct differential analyzer
 - (B) Data differential analyzer
 - (C) Direct difference analyzer
 - (D) Digital differential analyzer
44. The process of repositioning an object along a circular path is called :
- (A) Translation
 - (B) Rotation
 - (C) Scaling
 - (D) None of the above
45. Which of the following is must be specified to generate a rotation?
- (A) Rotational distance
 - (B) Rotation angle
 - (C) Co-ordinates
 - (D) None of the above
46. Which of the following transformation is used for altering the object's size?
- (A) Translation
 - (B) Scaling
 - (C) Rotation
 - (D) None of the above
47. Two dimensional color model are :
- (A) RGB and CMKY
 - (B) RBG and CYMK
 - (C) RGB and CMYK
 - (D) None of the above
48. RGB model are used for :
- (A) Computer display
 - (B) Printing
 - (C) Painting
 - (D) None of the above

49. LCD are commonly used in :
(A) Calculators
(B) Portable
(C) Laptop computers
(D) All of these
50. LCD is an ____ device.
(A) Emissive
(B) Non-emissive
(C) Gas discharge
(D) None of these
51. Plasma panel is an ____ device.
(A) Emissive
(B) Non-emissive
(C) Expensive
(D) None of these
52. Plasma device converts :
(A) Electrical energy into light
(B) Light into electrical energy
(C) Light into graphical energy
(D) None of these
53. Plasma panel have ____ resolution.
(A) High
(B) Good
(C) Both (A) and (B)
(D) Low
54. Plasma panel are also called :
(A) Liquid crystal display
(B) Gas discharge display
(C) Non-emissive display
(D) None of these
55. The basic graphical interactions are :
(A) Pointing
(B) Positioning
(C) Both (A) and (B)
(D) None of these
56. GUI means :
(A) Graphical user interface
(B) Graphical user interaction
(C) Graphics uniform interaction
(D) None of these
57. Which one is the basic input device in GUI?
(A) Mouse
(B) Graphics tablet
(C) Voice system
(D) Touch panel
58. Pen or inkjet plotters use the following devices :
(A) Drum
(B) Flat bed
(C) Both (A) and (B)
(D) None of these

59. Higher the number of pixels, the image quality :
- (A) Bad
 - (B) Better
 - (C) Smaller
 - (D) None of these
60. A palette can be defined as a finite set of colors for managing the :
- (A) Analog images
 - (B) Digital images
 - (C) Both (A) and (B)
 - (D) None of these
61. Display card are :
- (A) VGA
 - (B) EGA
 - (C) Both (A) and (B)
 - (D) None of these
62. Display card is used for the purpose of :
- (A) Sending graphics data to input unit
 - (B) Sending graphics data to output unit
 - (C) Receiving graphics data from output unit
 - (D) None of these
63. Several graphics image file formats that are used by most of graphics system are :
- (A) GIF
 - (B) JPEG
 - (C) TIFF
 - (D) All of these
64. The GIF format is much _____ to be downloaded or uploaded over the www.
- (A) Slower
 - (B) Faster
 - (C) Medium
 - (D) None of these
65. Once a file is saved in JPEG format ,some data is lost :
- (A) Temporarily
 - (B) Permanently
 - (C) Both (A) and (B)
 - (D) None of these
66. EPS image file format is used for :
- (A) Vector graphics
 - (B) Bitmap
 - (C) Both (A) and (B)
 - (D) None of these

67. The method which uses array of dots for generating a character is called :
- (A) Stoke method
(B) Bitmap method
(C) Star bust method
(D) None of these
68. The hardware devices contain :
- (A) Color printer / black white printer
(B) Plotters
(C) Both (A) and (B)
(D) None of these
69. An example of black and white laser printer is :
- (A) HP 4000
(B) QMS
(C) Both (A) and (B)
(D) None of these
70. An example of color printer is :
- (A) HP 4000
(B) QMS
(C) Both (A) and (B)
(D) None of these
71. Non-impact use various techniques to combine three color pigment _____ to produce a range of color patterns.
- (A) cyan , magenta and yellow
(B) cyan , white and black
(C) cyan , white and yellow
(D) black , magenta and yellow
72. Printers produce output by either :
- (A) Impact method
(B) Non-impact method
(C) Both (A) and (B)
(D) None of these
73. What is name of temporary memory where the graphics data is stored to be displayed on screen?
- (A) RAM
(B) ROM
(C) Frame buffer
(D) None of these
74. The division of the computer screen into rows and columns that define the no. of pixels to display a picture is called :
- (A) Persistence
(B) Resolution
(C) Encapsulated post script
(D) None of these
75. LCD means :
- (A) Liquid Crystal Display
(B) Liquid Crystal Data
(C) Liquid Chrome Data
(D) None of these

76. The quake , one of the first fully 3D games was released in year :
- (A) 1996
 - (B) 1976
 - (C) 1986
 - (D) 1999
77. Types of computer graphics are :
- (A) Vector and raster
 - (B) Scalar and raster
 - (C) Vector and scalar
 - (D) None of these
78. Vector graphics is composed of :
- (A) Pixels
 - (B) Paths
 - (C) Palette
 - (D) None of these
79. Raster graphics are composed of :
- (A) Pixels
 - (B) Paths
 - (C) Palette
 - (D) None of these
80. Raster images are more commonly called :
- (A) Pix map
 - (B) Bitmap
 - (C) Both (A) and (B)
 - (D) None of these
81. Pixel can be arranged in a regular :
- (A) One dimensional grid
 - (B) Two dimensional grid
 - (C) Three dimensional grid
 - (D) None of these
82. The brightness of each pixel is :
- (A) Compatible
 - (B) Incompatible
 - (C) Both (A) and (B)
 - (D) None of these
83. Each pixel has _____ basic color components.
- (A) Two or three
 - (B) One or two
 - (C) Three or four
 - (D) None of these
84. The quantity of an image depend on :
- (A) No. of pixel used by image
 - (B) No. of line used by image
 - (C) No. of resolution used by image
 - (D) None of these

85. DUST is rarely used today as part of :

- (A) Input device
- (B) Output device
- (C) Display systems
- (D) None of these

86. In DUST , is there refresh buffer :

- (A) Yes
- (B) No
- (C) Both (A) and (B)
- (D) None of these

87. The electron beam in DUST is designed to draw directly to :

- (A) Phosphor
- (B) Storage mesh
- (C) Glass
- (D) None of these

88. The second grid in DUST is called :

- (A) Phosphor
- (B) Storage mesh
- (C) Collector
- (D) None of these

89. Clipping in computer graphics is primarily used for :

- (A) zooming
- (B) copying
- (C) removing objects and lines
- (D) All of the above

90. Shadow mask method is used in :

- (A) Raster scan system
- (B) Random scan system
- (C) Both (A) and (B)
- (D) None of the above

91. Interactive graphics is useful in :

- (A) Training pilots
- (B) Computer aided design
- (C) Process control
- (D) All of the above

92. The origin of computer graphics was developed in :

- (A) 1950
- (B) 1960
- (C) 1970
- (D) 1990

93. The graphics can be :
- (A) Drawing
 - (B) Photographs, movies
 - (C) Simulation
 - (D) All of these
94. Computer graphics was first used by :
- (A) William fetter in 1960
 - (B) James fetter in 1969
 - (C) James gosling in 1991
 - (D) John Taylor in 1980
95. The component of interactive computer graphics are :
- (A) A light pen
 - (B) Display unit
 - (C) Bank of switches
 - (D) All of these
96. Personal computer become powerful during the late :
- (A) 1960
 - (B) 1970
 - (C) 1980
 - (D) 1950
97. Which of the following is not the pattern of line?
- (A) Dotted line
 - (B) Dashed line
 - (C) Dark line
 - (D) All of the above
98. Which environment has been one of the most accepted tool for computer graphics in business and graphic design studios?
- (A) graphics
 - (B) Macintosh
 - (C) quake
 - (D) multimedia
99. Graphics is one of the _____ major key element in design of multimedia application.
- (A) Five
 - (B) Three
 - (C) Four
 - (D) Eight
100. Three dimensional graphics become popular in games designing , multimedia and animation during the late :
- (A) 1960
 - (B) 1970
 - (C) 1980
 - (D) 1990

Rough Work

Example :

Question :

Q.1 (A) ● (C) (D)

Q.2 (A) (B) ● (D)

Q.3 (A) ● (C) (D)

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
6. All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
8. After the completion of the examination, candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
9. There will be no negative marking.
10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
11. To bring and use of log-book, calculator, pager & cellular phone in examination hall is prohibited.
12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.

Impt. On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

उदाहरण :

प्रश्न :

प्रश्न 1 (A) ● (C) (D)

प्रश्न 2 (A) (B) ● (D)

प्रश्न 3 (A) ● (C) (D)

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
6. सभी उत्तर केवल ओ०एम०आर० उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
7. ओ०एम०आर० उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
9. निगेटिव मार्किंग नहीं है।
10. कोई भी रफ कार्य, प्रश्न-पुस्तिका में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
11. परीक्षा-कक्ष में लॉग-बुक, कैल्कुलेटर, पेजर तथा सेल्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।

महत्वपूर्ण: प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।