

B.C.A.(First Semester) Examination, February/March-2022 BCA-1001

Computer Fundamental & Problem Solving Techniques

Time: 1:30 Hours

Maximum Marks-100

जब तक कहा न जाय, इस प्रश्नपुस्तिका को न खोलें

- निर्देश : 1. परीक्षार्थी अपने अनुक्रमांक, विषय एवं प्रश्नपुस्तिका की सीरीज का विवरण यथास्थान सही– सही भरें, अन्यथा मूल्यांकन में किसी भी प्रकार की विसंगति की दशा में उसकी जिम्मेदारी स्वयं परीक्षार्थी की होगी।
 - 2. इस प्रश्नपुस्तिका में 100 प्रश्न हैं, जिनमे से केवल 75 प्रश्नों के उत्तर परीक्षार्थियों द्वारा दिये जाने है। प्रत्येक प्रश्न के चार वैकल्पिक उत्तर प्रश्न के नीचे दिये गये हैं। इन चारों में से केवल एक ही उत्तर सही है। जिस उत्तर को आप सही या सबसे उचित समझते हैं, अपने उत्तर पत्रक (O.M.R. ANSWER SHEET)में उसके अक्षर वाले वृत्त को काले या नीले बाल प्वांइट पेन से पूरा भर दें। यदि किसी परीक्षार्थी द्वारा निर्धारित प्रश्नों से अधिक प्रश्नों के उत्तर दिये जाते हैं तो उसके द्वारा हल किये गये प्रथमतः यथा निर्दिष्ट प्रश्नोत्तरों का ही मूल्यांकन किया जायेगा।
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- प्रत्येक प्रश्न के अंक समान हैं। आप के जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
- 4. सभी उत्तर केवल ओ०एम०आर० उत्तर पत्रक (O.M.R. ANSWER SHEET) पर ही दिये जाने हैं। उत्तर पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
- ओ०एम०आर० उत्तर पत्रक (O.M.R. ANSWER SHEET) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाय।
- परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी प्रश्नपुस्तिका बुकलेट एवं ओ०एम०आर० शीट पृथक–पृथक उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें।
- 7. निगेटिव मार्किंग नहीं है।
- महत्वपूर्ण : प्रश्नपुस्तिका खोलने पर प्रथमतः जॉच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभॉति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्ष निरीक्षक को दिखाकर उसी सीरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।

- 1. The cumulative addition of the four binary bits (1+1+1+1) gives
 - (A) 1111
 - (B) 111
 - (C) 100
 - (D) 1001
- 2. Which of the following is the correct representation of a binary number?
 - (A) (124)₂
 - (B) 1110
 - (C) $(110)^2$
 - (D) (000)₂
- 3. Which of the following is not a binary number?
 - (A) 1111
 - (B) 101
 - (C) 11 E
 - (D) 000
- 4. Convert the binary equivalent 10101 to its decimal equivalent.
 - (A) 21
 - (B) 12
 - (C) 22
 - (D) 31
- 5. A bit in a computer terminology means either 0 or 1.
 - (A) True
 - (B) False
 - (C) Ambiguous statement
 - (D) None of These

6. The input hexadecimal representation of 1110 is _____

- (A) 0111
- (B) E
- (C) 15
- (D) 14

7. The octal equivalent of 1100101.001010 is _____

- (A) 624.12
- (B) 145.12
- (C) 154.12
- (D) 145.21

8. A computer language that is written in binary codes only is _____

- (A) Machine language
- (B) C
- (C) C#
- (D) Pascal

9. The binary equivalent of the decimal number 10 is _____

- (A) 0010
- (B) 10
- (C) 1010
- (D) 010

10. The value of radix in binary number system is _____

- (A) 2
- (B) 8
- (C) 10
- (D) 1
- 11. Which of the following is not a positional number system?
 - (A) Roman Number System
 - (B) Octal Number System
 - (C) Binary Number System
 - (D) Hexadecimal Number System
- 12. The Arithmetic Logic Unit performs which arithmetical operation?
 - (A) (+, -, *, /)
 - (B) (True. False)
 - (C) (<, >, =, > =, < >)
 - (D) All of these

- 13. Full form of CPU
 - (A) Central Processing Unit
 - (B) Central Program Unit
 - (C) Common Processing Unit
 - (D) Central Personal Unit
- 14. Full form of ALU
 - (A) Application Logic Unit
 - (B) Array Logic Unit
 - (C) Arithmetic Logic Unit
 - (D) Auxilary Logic Unit
- 15. What is information?
 - (A) Processed Data
 - (B) Collection of a Program
 - (C) Raw Data
 - (D) Collection of Instructions
- 16. Data in computer terminology mean?
 - (A) Figure
 - (B) Raw facts
 - (C) Both a & b
 - (D) None of these
- 17. The memory implemented using the semiconductor chips is _____
 - (A) Cache
 - (B) Main
 - (C) Secondary
 - (D) Registers

18. Which of the following is the fastest means of memory access for CPU?

- (A) Registers
- (B) Cache
- (C) Main memory
- (D) Virtual memory
- 19. Cache memory is the onboard storage.
 - (A) True
 - (B) False
 - (C) Ambiguous Statement
 - (D) None of these
- 20. Any electronic holding place where data can be stored and retrieved later whenever required is _____
 - (A) Memory
 - (B) Drive
 - (C) Disk
 - (D) Circuit
- 21. Which of the following is a technique that marked the beginning of computer communications?
 - (A) User Environment
 - (B) Batch Environment
 - (C) Time Sharing
 - (D) Message passing

- 22. Which of the following is created when a user opens an account in the computer system?
 - (A) SFD
 - (B) MFD
 - (C) Subdirectory
 - (D) RFD
- 23. Which of the following package allows individuals to use personal computers for storing and retrieving their personal information?
 - (A) Personal assistance package
 - (B) Graphics package
 - (C) Spreadsheet package
 - (D) Animation package
- 24. What does CAD stands for?
 - (A) Calculation Aided Design
 - (B) Computer Aided Design
 - (C) Calculation Aided Draft
 - (D) Computer Aided Draft
- 25. Which of the following is known as the language made up of binary-coded instructions?
 - (A) High level
 - (B) BASIC
 - (C) C
 - (D) Machine

- 26. Which of the following can access the server?
 - (A) Web Client
 - (B) User
 - (C) Web Browser
 - (D) Web Server
- 27. Which of the following is the device used for converting maps, pictures and drawings into digital form for storage in computers?
 - (A) Image Scanner
 - (B) Digitizer
 - (C) MICR
 - (D) Scanner
- 28. Which of the following are the input devices that enable direct data entry into a computer system from source documents?
 - (A) System Access devices
 - (B) Data acquiring devices
 - (C) Data retrieving devices
 - (D) Date Scanning devices
- 29. Which of the following devices provides the communication between a computer and the outer world?
 - (A) Compact
 - (B) I/O
 - (C) Drivers
 - (D) Storage

- 30. Which of the following is known as the interval between the instant a computer makes a request for the transfer of data from a disk system to the primary storage and the instance the operation is completed?
 - (A) Disk utilization time
 - (B) Drive utilization time
 - (C) Disk access time
 - (D) Disk arrival time
- 31. Which of the following storage is a system where a robotic arm will connect or disconnect off-line mass storage media according to the computer operating system demands?
 - (A) Magnetic
 - (B) Secondary
 - (C) Virtual
 - (D) Tertiary
- 32. Which of the following defines the assigned ordering among the characters used by the computer?
 - (A) Accumulation
 - (B) Sorting
 - (C) Collating Sequence
 - (D) Unicode
- 33. Which of the following are physical devices of a computer?
 - (A) Hardware
 - (B) Software
 - (C) System Software
 - (D) Package

- 34. Which of the following is used in EBCDIC?
 - (A) Super Computers
 - (B) Mainframes
 - (C) Machine Codes
 - (D) Programming
- 35. Which of the following device use positional notation to represent a decimal number?
 - (A) Pascaline
 - (B) Abacus
 - (C) Computer
 - (D) Calculator
- 36. Which of the following is designed to control the operations of a computer?
 - (A) User
 - (B) Application Software
 - (C) System Software
 - (D) Utility Software
- 37. Which of the following part of a processor contains the hardware necessary to perform all the operations required by a computer?
 - (A) Controller
 - (B) Registers
 - (C) Cache
 - (D) Data path

38. Which of the following is not a type of computer code?

- (A) EDIC
- (B) ASCII
- (C) BCD
- (D) EBCDIC
- 39. Which of the following monitor looks like a television and normally used with nonportable computer systems?
 - (A) LED
 - (B) LCD
 - (C) CRT
 - (D) Flat Panel Monitors
- 40. Which of the following unit is responsible for converting the data received from the user into a computer understandable format?
 - (A) Output Unit
 - (B) Input Unit
 - (C) Memory Unit
 - (D) Arithmetic & Logic Unit
- 41. Which of the following is the smallest unit of data in a computer?
 - (A) Bit
 - (B) KB
 - (C) Nibble
 - (D) Byte

42. What is the word length of a personal computer?

- (A) 32 bits
- (B) 8 bits
- (C) 64 bits
- (D) 16 bits
- 43. Which of the following is not a characteristic of a computer?
 - (A) Versatility
 - (B) Accuracy
 - (C) Diligence
 - (D) I.Q.
- 44. Which of the following is the brain of the computer?
 - (A) Central Processing Unit
 - (B) Memory
 - (C) Arithmetic and Logic Unit
 - (D) Control Unit
- 45. Which of the following computer language is written in binary codes only?
 - (A) Pascal
 - (B) Machine language
 - (C) C
 - (D) C#
- 46. Which of the following language does computer understand?
 - (A) Computer Understands Only C Language
 - (B) Computer Understands Only Assembly Language
 - (C) Computer Understands Only Binary Language
 - (D) Computer Understands Only BASIC

- 47. What is the full form of CPU?
 - (A) Computer Processing Unit
 - (B) Computer Principle Unit
 - (C) Central Processing Unit
 - (D) Control Processing Unit
- 48. Which of the following is the correct definition of Computer?
 - (A) Computer is a machine or device that can be programmed to perform arithmetical or logic operation sequences automatically
 - (B) Computer understands only binary language which is written in the form of 0s & 1s
 - (C) Computer is a programmable electronic device that stores, retrieves, and processes the data
 - (D) All of the mentioned
- 49. Which of the following is the correct abbreviation of COMPUTER?
 - (A) Commonly Occupied Machines Used in Technical and Educational Research
 - (B) Commonly Operated Machines Used in Technical and Environmental Research
 - (C) Commonly Oriented Machines Used in Technical and Educational Research
 - (D) Commonly Operated Machines Used in Technical and Educational Research
- 50. Who is the father of Computers?
 - (A) James Gosling
 - (B) Charles Babbage
 - (C) Dennis Ritchie
 - (D) Bjarne Stroustrup

51. The hexadecimal equivalent of the binary number (0010010100)2 is :

- (A) 0B4
- (B) 0A4
- (C) 224
- (D) 0114
- 52. Convert $(52)_{16}$ into its decimal equivalent.
 - (A) 28
 - (B) 83
 - (C) 80
 - (D) 82

53. The binary number 1110 in hexadecimal format is _____

- (A) 6
- (B) E
- (C) 14
- (D) 15

54. The maximum number of bits sufficient to represent a hexadecimal number in binary:

- (A) 4
- (B) 3
- (C) 7
- (D) 8

55. ABC is a valid hexadecimal number.

- (A) True
- (B) False
- (C) Ambiguous statement
- (D) None of these
- 56. What does the symbol D represent in a hexadecimal number system?
 - (A) 8
 - (B) 16
 - (C) 13
 - (D) 14
- 57. A device used for video games, flight simulators, training simulators and for controlling industrial robots.
 - (A) Mouse
 - (B) Light pen
 - (C) Joystick
 - (D) Keyboard
- 58. Which of the following is not a point-and-draw device?
 - (A) Keypad
 - (B) Trackball
 - (C) Touch screen
 - (D) Mouse

- 59. What does GUI stand for?
 - (A) Graphical User Instruction
 - (B) Ground User Interface
 - (C) General User Instruction
 - (D) Graphical User Interface
- 60. The I/O devices are sometimes called the peripheral devices because they surround the CPU and memory of the computer system.
 - (A) True
 - (B) False
 - (C) Ambiguous statement
 - (D) None of these
- 61. These devices provide a means of communication between a computer and outer word.
 - (A) I/O
 - (B) Storage
 - (C) Compact
 - (D) Drivers
- 62. Which command is used to delete the directory that is empty?
 - (A) Del *. *
 - (B) RD
 - (C) Erase
 - (D) MD

63. Which command displays current directory name or change from one to another?

- (A) Chdir
- (B) Cd
- (C) Mkdir
- (D) Both a and b
- 64. Which command creates a directory or subdirectory?
 - (A) Dir
 - (B) Mkdir
 - (C) Md
 - (D) None of these
- 65. Which command will be used to display a file within the specified directory of pathname?
 - (A) Dir\pathname
 - (B) Dir\pathname \pathname
 - (C) Dir/ch
 - (D) Dir \pathname\filename
- 66. Which command displays the directory list including files in tree structure?
 - (A) Dir/s/f
 - (B) Tree/f
 - (C) Tree/s/f
 - (D) Dir/f

- 67. Which command should be used to display all files within the specified subordinate directory of the subdirectory?
 - (A) Dir $\$ pathname
 - (B) Dir $\ pathname \ pathname$
 - (C) $Dir \setminus ch$
 - (D) $Dir \setminus pathname \setminus filename$
- 68. Which command is used to display all the files having the (.exe) extension but different filename?
 - (A) Dir filename. *
 - (B) Dir filename.ext
 - (C) Dir * .sys
 - (D) Dir * .ext
- 69. Which command displays comma for thousand separating on file size while listing?
 - (A) Dir/w
 - (B) Dir/s
 - (C) Dir/b
 - (D) Dir/c
- 70. Which command displays only file and directory names without size, date and time information?
 - (A) Dir/w
 - (B) Dir a:
 - (C) Dir/b
 - (D) Dir/s

- 71. Which command displays all the files having the same name but different extensions?
 - (A) Dir filename. *
 - (B) Dir filename.ext
 - (C) Dir * .sys
 - (D) Dir * .ext
- 72. Only filenames and extensions are to be displayed in wide format, which command you'll use?
 - (A) Dir/w
 - (B) Dir a:
 - (C) Dir/s
 - (D) Dir/b
- 73. Which command lists the contents of current directory of a disk?
 - (A) Copy
 - (B) Tree
 - (C) Cd
 - (D) Dir
- 74. Which of the following extensions suggest that file is a backup copy
 - (A) Bak
 - (B) Bas
 - (C) Com
 - (D) Txt
- 75. If you need to duplicate the entire disk, which command will you use?
 - (A) Copy
 - (B) Disk copy
 - (C) Chkdsk
 - (D) Format

- 76. Each time you turn on your computer, it will check on the control file
 - (A) Command.com, io.sys
 - (B) Command.com, date.com, dir.com
 - (C) Command.com, io.sys, msdos.sys
 - (D) Chkdsk.exe
- 77. Which command divides the surface of the blank disk into sectors and assign a unique address to each one
 - (A) Ver
 - (B) Format
 - (C) Fat
 - (D) Chkdsk
- 78. If you don't know the current time, which command will you use to display
 - (A) Copy
 - (B) Ver
 - (C) Time
 - (D) Format

79. While working with Ms-Dos which command transfers a specific file from one disk to another?

- (A) Copy
- (B) Disk copy
- (C) Time
- (D) Rename

80. In Ms-Dos what command you will use to display system date?

- (A) Date command
- (B) Ver command
- (C) Disk command
- (D) Format command
- 81. In MS-Dos 6.22, which part identifies the product uniquely?
 - (A) MS
 - (B) DOS
 - (C) Ms-DOS
 - (D) 6.22
- 82. ASCII stands for _____
 - (A) American standard code for information interchange
 - (B) American scientific code for information interchange
 - (C) American scientific code for international interchange
 - (D) American standard code of international interchange
- 83. Perform BCD addition: 2+3=_____
 - (A) 0010
 - (B) 0011
 - (C) 0101
 - (D) 1010
- 84. 1 zettabyte = _____
 - (A) 1024 TB
 - (B) 1024 EB
 - (C) 1024 ZB
 - (D) 1024 PB

- 85. What does BCD stand for?
 - (A) Bitwise coded decimal
 - (B) Binary coded decimal
 - (C) Binary converted decimal
 - (D) Bitwise converted decimal
- 86. The 2's complement of 5 is _____
 - (A) 1011
 - (B) 0101
 - (C) 1010
 - (D) 0011
- 87. A device that uses positional notation to represent a decimal number.
 - (A) Abacus
 - (B) Calculator
 - (C) Pascaline
 - (D) Computer
- 88. The LSB and MSB of 1243247 are ____ and ____
 - (A) 1,7
 - (B) 4,7
 - (C) 7, 1
 - (D) 4, 1
- 89. The base is the total number of digits in a number system.
 - (A) True
 - (B) False
 - (C) Ambiguous statement
 - (D) None of these

90. How is the number 5 represented in non-positional number system?

- (A) IIIII
- (B) 5
- (C) V
- (D) v
- 91. Which of the following is not a type of number system?
 - (A) Positional
 - (B) Non-Positional
 - (C) Octal
 - (D) Fractional
- 92. If the decimal number is a fraction then its binary equivalent is obtained by ______ the number continuously by 2.
 - (A) Dividing
 - (B) Multiplying
 - (C) Adding
 - (D) Subtracting
- 93. The octal number 645 in power of 8 is equal
 - (A) 450
 - (B) 451
 - (C) 421
 - (D) 501

- 94. The two digits hexadecimal number which has largest value is _____ which corresponds to _____
 - (A) FE, 255 decimal
 - (B) FF, 254 decimal
 - (C) EF, 255 decimal
 - (D) EF, 245 decimal
- 95. The decimal equivalent of (LM17) is given by
 - (A) 491
 - (B) 499
 - (C) 497
 - (D) 498
- 96. $(170)_{10}$ is equivalent to
 - (A) (FD)₁₆
 - (B) (DF)₁₆
 - (C) (AA)₁₆
 - (D) (AF)₁₆
- 97. Convert in to decimal: $(214)_8 = ?$
 - (A) (140)₁₀
 - (B) (141)₁₀
 - (C) (142)₁₀
 - (D) (130)₁₀

98. One hex digit is sometimes referred to as a(n):

- (A) Byte
- (B) Nibble
- (C) Grouping
- (D) Instruction
- 99. The digital systems usually operate on _____ system.
 - (A) Binary
 - (B) Decimal
 - (C) Octal
 - (D) Hexadecimal
- 100. The binary addition 1+1+1 gives
 - (A) 111
 - (B) 10
 - (C) 110
 - (D) 11

Rough Work / रफ कार्य

Rough Work / रफ कार्य

DO NOT OPEN THE QUESTION BOOKLET UNTIL ASKED TO DO SO

- Examinee should enter his / her roll number, subject and Question Booklet Series correctly in the O.M.R. sheet, the examinee will be responsible for the error he / she has made.
- 2. This Question Booklet contains 100 questions, out of which only 75 Question are to be Answered by the examinee. Every question has 4 options and only one of them is correct. The answer which seems correct to you, darken that option number in your Answer Booklet <u>(O.M.R ANSWER SHEET)</u> completely with black or blue ball point pen. If any examinee will mark more than one answer of a particular question, then the first most option will be considered valid.
- 3. Every question has same marks. Every question you attempt correctly, marks will be given according to that.
- Every answer should be marked only on Answer Booklet <u>(O.M.R</u> <u>ANSWER SHEET</u>). Answer marked anywhere else other than the determined place will not be considered valid.
- 5. Please read all the instructions carefully before attempting anything on Answer Booklet(O.M.R ANSWER SHEET).
- After completion of examination please hand over the Answer Booklet (O.M.R ANSWER SHEET) to the Examiner before leaving the examination room.
- 7. There is no negative marking.
- **Note:** On opening the question booklet, first check that all the pages of the question booklet are printed properly in case there is an issue please ask the examiner to change the booklet of same series and get another one.