

U.G. 1st Semester Examination-2024

COMPUTER SCIENCE

[Multidisciplinary Course (MDC)]

Course Code : CS-MDC-T-01

(Computer Science for Beginners)

[NEP- 2020]

Full Marks : 35

Time : 90 Minutes

Instructions to the Candidates:

- Candidates will be provided with a question cum answer booklet.
- The booklet contain 35 multiple choice questions, each carrying 1 mark. Candidate will attempt all the questions from the following (MCQ).
- Candidates must fill up his/her Registration Number, Year & Roll Number in the space provided.
- Do not make any rough work on the answer booklet.
- At the end of the examination please return the answer booklet to the invigilator.

Registration No.

Year

Roll Number

Signature of the Invigilator

[Turn Over]

Answer all the following questions. [Choose the correct option and put tick (✓) mark beside given box]: 1×35=35

1. Which generation introduced the use of integrated circuits?
 - a) First ☐
 - b) Second ☐
 - c) Third ☐
 - d) Fourth ☐
2. Microprocessors were introduced in which computer generation?
 - a) First ☐
 - b) Second ☐
 - c) Third ☐
 - d) Fourth ☐
3. The current generation of computers is based on:
 - a) Vacuum tubes ☐
 - b) Artificial Intelligence ☐
 - c) Magnetic tape ☐
 - d) Transistors ☐
4. Which type of computer is best suited for weather forecasting and complex simulations?
 - a) Mainframe ☐
 - b) Mini ☐
 - c) Personal ☐
 - d) Super ☐
5. The CPU does not contain:
 - a) ALU ☐
 - b) Control Unit ☐
 - c) RAM ☐
 - d) Registers ☐
6. Which of the following is a volatile memory?
 - a) ROM ☐
 - b) SSD ☐
 - c) RAM ☐
 - d) DVD ☐

[Turn Over]

7. Which of these is NOT considered secondary storage?
 - a) Hard Disk
 - b) SSD
 - c) Pen Drive
 - d) Cache
8. An operating system is an example of:
 - a) Application software
 - b) System software
 - c) Firmware
 - d) Utility
9. Decimal 255 is equivalent to which hexadecimal value?
 - a) FF
 - b) F1
 - c) FE
 - d) 1F
10. Octal number system has base:
 - a) 2
 - b) 8
 - c) 10
 - d) 16
11. Convert decimal number 64 to binary:
 - a) 100000
 - b) 101000
 - c) 1000000
 - d) 111000
12. What is the output of an AND gate with inputs 1 and 0?
 - a) 0
 - b) 1
 - c) Undefined
 - d) Depends on circuit

13. Which gate outputs high only if all inputs are low?

- a) OR
- b) NAND
- c) NOR
- d) XOR

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14. In K-map simplification, adjacent cells differ by:

- a) 1 bit
- b) 2 bits
- c) 3 bits
- d) 0 bits

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15. Which method is NOT used for logic minimization?

- a) K-map
- b) Algebraic
- c) Truth table
- d) Graph theory

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16. The expression $A + AB$ simplifies to:

- a) A
- b) AB
- c) B
- d) $A(1 + B)$

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17. In pseudocode, what does "IF..THEN...ELSE" represent?

- a) Loop
- b) Input
- c) Conditional statement
- d) Assignment

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18. Which symbol represents a process in a flowchart?

- a) Diamond
- b) Oval
- c) Rectangle
- d) Parallelogram

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19. Pseudocode is:
 - a) A programming language
 - b) Code compiled by computer
 - c) Human-readable algorithm design
 - d) Machine code
20. What does a parallelogram represent in a flowchart?
 - a) Decision
 - b) Start/End
 - c) Input/Output
 - d) Loop
21. What is the first step in problem solving?
 - a) Coding
 - b) Designing
 - c) Understanding the problem
 - d) Testing
22. Assembly language uses:
 - a) High-level syntax
 - b) Binary only
 - c) Mnemonics
 - d) English language
23. Compiler is used for:
 - a) Debugging
 - b) Translating high-level code
 - c) Writing pseudocode
 - d) Testing circuits
24. A DBMS helps to:
 - a) Print files
 - b) Manage large amounts of data
 - c) Scan viruses
 - d) Connect to internet

25. In a database, a "table" is also known as a:
- a) File
 - b) Record
 - c) Relation
 - d) Row
26. Which DBMS model uses parent-child relationships?
- a) Relational
 - b) Network
 - c) Hierarchical
 - d) Object-oriented
27. The key that uniquely identifies each record is:
- a) Primary key
 - b) Foreign key
 - c) Alternate key
 - d) Composite key
28. Which protocol is used for secure communication on the web?
- a) HTTP
 - b) FTP
 - c) HTTPS
 - d) TCP
29. What device connects multiple computers in a network?
- a) Scanner
 - b) Switch
 - c) Keyboard
 - d) Printer
30. What does ISP provide?
- a) Software installation
 - b) Network security
 - c) Internet access
 - d) Hardware repair

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31. Cybercrime refers to:

- a) Physical theft
- b) Internet-based illegal activities
- c) Robbery
- d) Hardware breakdown

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32. Which law regulates e-commerce in India?

- a) IPC
- b) IT Act
- c) Contract Act
- d) Telecom Act

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33. A digital signature ensures:

- a) Image compression
- b) Program execution
- c) Data authenticity
- d) Internet speed

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34. Section 66A of the IT Act was related to:

- a) Copyright violation
- b) Obscene emails
- c) Offensive messages via communication
- d) Hacking

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35. Which of these is a punishment under IT Act for hacking?

- a) Fine
- b) Imprisonment
- c) Both (a) and (b)
- d) None

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