



UG Semester-End Final Exams-2026

Date: 30 -05- 2026

B.COM 4th Semester (VAC)

FUNDAMENTALS OF COMPUTING

Full Marks: 37.5

Pass Mark: 15

Time: 2 Hours

Part A- Objective Questions.

(The Figures in the right margin indicates full marks for the questions)

SECTION -I

Choose the correct answer from the following

0.5×15=7.5

1. Which of the following language does the computer understand?
 - a) C language
 - b) Assembly Language
 - c) Binary Language
 - d) BASIC
2. Control unit is a part of
 - a) CPU
 - b) Input Unit
 - c) Output Unit
 - d) ALU
3. A tree topology combines the characteristics of
 - a) bus and star
 - b) bus and hybrid
 - c) bus and ring
 - d) ring and star
4. The binary equivalent of 13 is
 - a) $(1011)_2$
 - b) $(1100)_2$
 - c) $(1010)_2$
 - d) $(1101)_2$

(PTO)

5. The decimal equivalent of $(10001)_2$ is

- a) 14
- b) 15
- c) 16
- d) 17

6. Which of the following is a volatile memory?

- a) ROM
- b) Cache memory
- c) RAM
- d) Hard disk

7. Which software component translates high-level programming languages into machine code?

- a) Compiler
- b) Interpreter
- c) Operating system
- d) Debugger

8. Which of the following is an example of a wireless network technology?

- a) Ethernet
- b) Bluetooth
- c) Fiber optics
- d) Coaxial cable

9. Devices may be arranged in a _____ topology.

- a) Mesh
- b) Ring
- c) Bus
- d) All of the above

10. In a mesh topology, how many links are there between each pair of devices?

- a) One
- b) Two
- c) Multiple
- d) None of these

11. Which notation is used to represent the relationship between entities in an ER diagram?

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

12. In a relational database, what is a primary key?

- a) A key used for indexing purposes
- b) A unique identifier for each record in a table
- c) A key used for establishing relationships between tables
- d) A key that allows null values

13. In an ER diagram, what does a double ellipse represent?

- a) Weak entity
- b) Strong entity
- c) Cardinality constraint
- d) Existence dependency constraint

14. Which type of database model organizes data into tables with predefined relationships between them?

- a) Hierarchical
- b) Network
- c) Relational
- d) Object-oriented

15. What is the primary purpose of a database in computing?

- a) Gaming
- b) Storing and managing data
- c) Graphic design
- d) Network security

SECTION -II

Answer the following questions briefly (any six)

1×6=6

1. What do you mean by the term software of a computer?
2. What is assembler and compiler?

(PTO)

3. Add the binary numbers: $(11101)_2$ and $(1010)_2$
4. What is utility program?
5. Define Database design.
6. Write the components of Data Communication.
7. Write a short note on ER model.
8. Write one characteristic of database?

(PART: B - DESCRIPTIVE)

(The figures in the right margin indicate full marks for the questions)

Answer the following questions briefly (any six) 4×6=24

1. Explain the Computer Organization and explain each component of a computer system with block diagram.
2. What is memory? Explain primary and secondary storage unit.
3. Convert the following into decimal numbers to binary:
(i) 369 (ii) 1798
4. Find out the decimal equivalents of the following binary numbers:
(i) $(1010101)_2$ (ii) $(111011)_2$
5. Explain the types of computer software.
6. Define topology. Explain the various types of topologies.
7. What is Information Systems Development? Explain its several key stages.
8. Explain the different types of utility programs.
9. Differentiate between LAN, MAN and WAN.
10. What is Relational Model? Discuss in brief the concept of transforming ER Model to Relational data model of accounting and business applications.

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