

UG Semester-End Final Exams-2025

B.COM 4th Semester

(VAC)

Fundamentals of Computing

Full Marks: 37.5

Pass Mark: 15

Time: 2 Hours

SECTION-I. Choose the most appropriate answer:

(0.5 X 15=7.5)

1. Control unit is a part of
 - a) CPU
 - b) Input Unit
 - c) Output Unit
 - d) ALU
2. The binary equivalent of 13 is
 - a) 1011
 - b) 1100
 - c) 1010
 - d) 1101
3. Which of the following is a volatile memory?
 - a) ROM
 - b) Cache memory
 - c) RAM
 - d) Hard disk
4. What is the primary function of the operating system?
 - a) Creating documents
 - b) Managing Hardware resources
 - c) Editing images
 - d) Browsing the internet

(PTO)

5. What does LAN stand for?

- a) Local Access Network
- b) Long Area Network
- c) Local Area Network
- d) Limited Access Network

6. The decimal equivalent of 10001 is

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

7. A _____ is a set of rules that governs data communication

- a) Protocol
- b) Forum
- c) Standard
- d) None of the above

8. Methods used to convey information _____

- a) Text and pictures
- b) Videos
- c) Animations
- d) All of the above

9. Devices may be arranged in a _____ topology.

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

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

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

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 five) 1×5=5

1. Write one characteristics of computer.
2. What are the shortcut keys for copying?

(PTO)

3. What is the value of the base for decimal, hexadecimal, binary and octal number.
4. Define data communication.
5. What is the characteristic of database?
6. Define Database.
7. Write the full form of SDLC.

SECTION-III. Descriptive Type. Answer any five questions: (5×5=25)

1. What are the different components of CPU? Write briefly about each component of CPU.
2. Find out the decimal equivalent of the following binary numbers:
 a) $(1101)_2$ b) $(1011)_2$ c) $(111011)_2$ d) $(1100110)_2$ e) $(11110)_2$
3. Convert the following into decimal numbers to binary form:
 (a) 44 (b) 369 (c) 276 (d) 1798 (e) 8462
4. Differentiate between LAN, MAN and WAN. (Mention five points)
5. Define Network Topologies. Explain some of the important network topologies.
6. Explain in detail System Development Life Cycle (SDLC).
7. Explain the components of Information systems development.
8. Define ER Model. Describe the step by step for creating an initial ER Model.
9. What is Relational Model? Discuss in brief the concept of transforming ER Model to Relational data model of accounting and business applications.
