

DA/29/11/2023

BCA/1/CC/03

Student's Copy

Professional Course Examination (Odd), 2023

(1st Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course No. : BCA/1/CC/03

(Introduction to Information Technology)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

(PART : A—OBJECTIVE)

(Marks : 25)

SECTION—I

(Marks : 15)

A. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. In computer terminology, information means
(a) alphanumeric data ()
(b) program ()
(c) data in more useful or intelligible form ()
(d) raw data ()
2. Which of the following memories uses flip-flop component?
(a) DRAM () (b) SRAM ()
(c) ROM () (d) SDRAM ()
3. If the processed data output is recorded on a removable storage such as pen-drive or CDROM, it is called
(a) a hard copy () (b) a soft copy ()
(c) a file () (d) a document ()

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4. A standard to communicate between a computer and a synthesizer is called

(a) MIDI ()	(b) DIMI ()
(c) IDMI ()	(d) MIID ()
 5. The precise notation used to express an algorithm is called

(a) a flowchart ()	(b) a computer program ()
(c) a software ()	(d) a programming language ()
 6. Which of the following is not a non-text database?

(a) Picture database ()	(b) Music database ()
(c) Video database ()	(d) Book database ()
 7. A communication channel that is used to send the data by pulses of light, is

(a) air ()	(b) twisted pair cable ()
(c) coaxial cable ()	(d) optical fiber ()
 8. The total number of connecting lines required for n -nodes of completely connected network topology is

(a) $(n-1)/2$ ()	(b) $(n(n-1))/2$ ()
(c) $n/2$ ()	(d) $(n-1)$ ()
 9. Set of rules for computers to retrieve textual data from remote servers is called

(a) WWW ()	(b) E-mail ()
(c) HTTP ()	(d) URL ()
 10. The copyright provides which of the following rights to the author?

(a) To prepare a derivative work based on the original work ()	(b) To give a performance based on the work if it is a drama ()
(c) To exhibit the work if it is a work of art ()	(d) All of the above ()

B. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark : 1×5=5

1. The computer main memory is an external memory.

(T / F)

2. System software that converts source code to object code is called language processor.

(T / F)

3. IPv6 provides 256 bits for addresses.

(T / F)

4. A collection of related data having a similar purpose is called a database.

(T / F)

5. MS-Office is a public domain software.

(T / F)

SECTION—II

(Marks : 10)

C. Answer the following questions : 2×5=10

1. (a) What is data storage?

OR

(b) What is the difference between data and information?

2. (a) What do you mean by aspect ratio?

OR

(b) What is system software? Give example.

3. (a) What are hardcopy and softcopy?

OR

(b) What is boot strap?

4. (a) What is computer network topology?

OR

(b) What are modulation and demodulation?

5. (a) What do you mean by WWW?

OR

(b) What is Intellectual Property Right?

(PART : B—DESCRIPTIVE)

(Marks : 50)

1. (a) What is data processing? Explain the various steps in data processing with a suitable diagram. 2+8=10

OR

(b) Explain the basic functional component of computer system with a suitable diagram. 10

2. (a) Explain the main working principle of Liquid Crystal Display (LCD). 5

(b) What is output device? Explain the main classification of printers. 5

OR

(c) Distinguish among multiprogramming, multitasking, multiprocessing, multithreading and time-sharing systems. 5

(d) Define the following : 5

(i) Algorithm

(ii) Flowchart

(iii) Machine language

(iv) High-level language

(v) Compiler

3. (a) What is Relational Database Management System (RDBMS)? Discuss in brief the structure of database with a suitable example. 2+8=10

OR

(b) What are the major functions of an operating system? 5

(c) Define the following : 5

(i) Archiving database

(ii) Database tuple

(iii) Database field

(iv) Data dictionary

(v) Data normalization

4. (a) What is communication channel? Explain the data transmission modes of data communication with a suitable diagram. 2+8=10

OR

- (b) What is baud rate? What are the various transmission media or channels? 2+8=10

5. (a) Explain any three Internet services. 3

- (b) Explain the different layers of an OSI model. 7

OR

- (c) What are the three types of intellectual property? 5

- (d) What are the privacy, security and integrity of information? 5
