

2015

( 1st Semester )

**BACHELOR OF COMPUTER APPLICATION**

Paper No. : BCA-103

( New Course )

**( Introduction to Information Technology )**

( PART : A—OBJECTIVE )

( Marks : 25 )

*The figures in the margin indicate full marks for the questions*

SECTION—I

( Marks : 15 )

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

1. In half-duplex transmission, data can be transmitted only in

- (a) one direction ( )
- (b) both directions ( )
- (c) both directions simultaneously ( )
- (d) All of the above ( )

2. A software that searched through a database on Web page for specific information is
- (a) Web browser ( )
  - (b) Web server ( )
  - (c) search engine ( )
  - (d) WWW ( )
3. Which of the following devices operates at network layer of the OSI model?
- (a) Bridges ( )
  - (b) Routers ( )
  - (c) Gateways ( )
  - (d) Hubs ( )
4. Which of the following is unguided transmission media?
- (a) Microwave ( )
  - (b) Radiowave ( )
  - (c) Infrared ( )
  - (d) All of the above ( )

5. The device which converts digital signal into analog signal and reverse is called
- (a) modem ( )
  - (b) modulation ( )
  - (c) demodulation ( )
  - (d) amplifier ( )
6. Which of the following years is fourth-generation period?
- (a) 1975-1988 ( )
  - (b) 1976-1989 ( )
  - (c) 1975-1989 ( )
  - (d) 1974-1989 ( )
7. The amount of work that a system is able to do per unit time is
- (a) throughput ( )
  - (b) turnaround time ( )
  - (c) response time ( )
  - (d) execution time ( )

8. Which of the following is not a main function of modern operating system?

- (a) Command interpreter ( )
- (b) Memory management ( )
- (c) File management ( )
- (d) None of the above ( )

9. The time required to position the read/write head over the desire track/cylinder is called

- (a) Latency ( )
- (b) Seek time ( )
- (c) Access time ( )
- (d) Transfer rate ( )

10. Satellite communications use

- (a) microwave ( )
- (b) optical fibers ( )
- (c) infrared ( )
- (d) coaxial cable ( )

( 5 )

II. State whether the following statements True (T) or False (F) by putting a tick (✓) mark : 1×5=5

1. Synchronous transmission is more efficient than asynchronous transmission.

( T / F )

2. The actual URL is a set of four numbers separated by periods.

( T / F )

3. The OSI model provides a conceptual framework for communication between devices.

( T / F )

4. The function of the DNS protocol is mapping user-friendly names to IP addresses.

( T / F )

5. Attenuation refers to mixed of energy as signal propagates outwards.

( T / F )

SECTION—II

( Marks : 10 )

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

1. What is ROM? Write the different types of ROM.

( 7 )

2. Differentiate between input device and output device.

10

3. What is search engine?

4. What is computer network? Write the different types of computer network.

( 9 )

5. What are the layers in TCP/IP model of network architecture?

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**I/BCA/103**

**2015**

( 1st Semester )

**BACHELOR OF COMPUTER APPLICATION**

Paper No. : BCA-103

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*Full Marks : 75*

*Time : 3 hours*

( PART : B—DESCRIPTIVE )

( Marks : 50 )

*The figures in the margin indicate full marks  
for the questions*

1. (a) Define a computer. Write the characteristics of computer. 4
- (b) Describe the classification of computers based on size and type. 6
- Or*
- (c) What is secondary storage? How does it differ from a primary storage? 4
- (d) What is magnetic disk? Explain sequential access and random access storage devices. 6

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( Turn Over )

2. (a) What is machine language? Differentiate between compiler and interpreter. 5
- (b) What is decision table? Explain the various basic flowchart symbols and their functions. 5
- Or*
- (c) What is flowchart? Describe the advantages of flowcharting. 6
- (d) What is pseudocode? Write the limitations of pseudocode. 4
3. (a) What is time-sharing? List some advantages of time sharing system. 4
- (b) Describe different types of operating system depending on their capabilities of processing. 6
- Or*
- (c) What is multithreading? Differentiate between multitasking and multiprocessing. 5
- (d) Define a computer virus with examples. Write the characteristics of computer virus. 5
4. (a) What is communication system? Explain the different modes of data transmission. 5
- (b) What is transmission media? Explain any two types of wired/guided transmission media. 5

( 3 )

Or

- (c) Describe the concept of OSI model of network architecture with functions of each layer. 7
- (b) What do you mean by distributed computing system? 3
5. (a) What is IP address? Explain different classes of IP address. 6
- (b) What is Web browser? Differentiate between intranet and extranet. 4

Or

- (c) What is Internet? Write the impacts of Internet to society. 5
- (d) What is WWW? Write the current strategic uses of the Internet. 5

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