(Please write your Exam Roll No.) *Exam Roll No.* 4061420016

END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2016

Paper Code: BCA-107 ***Subject: Introduction to Computer and Information Technology***

Time: 3 Hours ***Maximum Marks: 75***

Note: Attempt any five questions including Q no.1 which is compulsory. Select one question from each unit.

Q1 Answer the following questions:- **(2.5x10=25)**

(a) List out and explain some of the parameters that were traditionally used to classify computers.
(b) What is an instruction set?
(c) What is difference between data and information?
(d) List out and explain some of the important characteristics of a computer.
(e) What is meant by garbage-in-garbage-out?
(f) What is an input interface? How does it differ from an output interface?
(g) What is the value of the base for decimal, hexadecimal, binary and octal number system?
(h) Define the term 'byte'. What is the difference between a bit and a byte?
(i) Differentiate between static and dynamic RAMs.
(j) What is a secondary storage? How does it differ from a primary storage?

UNIT-I

Q2 Explain the following:- **(2.5x5=12.5)**

(a) World Wide Web (b) Optical disk (c) Flowchart
(d) Protocols (e) Modem

Q3 Describe the following:- **(2.5x5=12.5)**

(a) Network Topologies (b) Ethernet (c) Web server
(d) Data transmission mode (e) The OSI model

UNIT-II

Q4 Convert the following:- **(2.5x5=12.5)**

(a) Convert 23 from base 10 to base 8.
(b) Convert 101010101 from base 2 to base 16.
(c) Convert 234 from base 8 to base 10.
(d) Convert E16 from base 16 to base 10.
(e) Perform binary addition of (+12) + (+15)

Q5 Differentiate between the following:-

(a) 1's complement and 2's complement of binary system **(3)**
(b) Positional and non-positional number system **(3)**
(c) Octal number system and hexadecimal number system **(3)**
(d) ASCII coding scheme and EBCDIC coding scheme **(3.5)**

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UNIT-III

Q6 Answer the following:-

(a) Define and distinguish between application software and system software. Explain the differences among assemblers, compilers and interpreters. **(6)**

(b) Classify the operating system into different types based on their processing capability. List the main function of the operating system and describe in details. **(6.5)**

Q7 Differentiate between the following:- **(2.5x5=12.5)**

(a) Pseudo code and Flowchart
(b) Selection and Iteration
(c) Procedure-oriented and Object-oriented languages
(d) Low-level and High-level language
(e) Multiprocessing and multitasking

UNIT-IV

Q8 Write short notes on the following:- **(2.5x5=12.5)**

(a) Component of computer
(b) Fifth generation computer
(c) Storage unit
(d) Applications of computer
(e) Central Processing Unit

Q9 Differentiate between **(any two)**- **(6.25x2=12.5)**

(a) Sequential access device and Direct access device
(b) Primary memory and Secondary memory
(c) Optical disk and Hard disk
(d) OCR and OMR
(e) Impact printer and impact less printer

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END TERM EXAMINATION

FIRST SEMESTER [BCA] DECEMBER 2017

Paper Code: BCA-107 ***Subject: Introduction to Computers and IT***

Time: 3 Hours ***Maximum Marks: 75***

Note: Attempt any five questions including Q.no.1 which is compulsory. Select one question from each unit.

Q1 (a) Define architecture of computer system. **(5x5=25)**
(b) Differentiate between Low Level and High Level Language.
(c) Define Operating System. Name two open source OS.
(d) Differentiate between LAN and WAN.
(e) Define Telnet.

Unit-I

Q2 (a) Discuss classification of computers. **(6)**
(b) Explain functionality of magnetic Hard disk. **(6.5)**

Q3 (a) Explain Serial Access memory. **(6)**
(b) Differentiate between Magnetic Tape Drive and Magnetic Hard Disk. **(6.5)**

Unit-II

Q4 (a) Differentiate between Assembler, Compiler and Interpreter. **(6.5)**
(b) Explain role of linker. **(6)**

Q5 (a) Explain the procedure of mail merge in MS-WORD. **(6)**
(b) What is the importance of Algorithm and Flow Chart in computer program? **(6.5)**

Unit-III

Q6 (a) Convert the following: **(6.5)**
$(1\,1\,0\,1\,1)_2 = (?)_8$
$(2\,B\,C\,A)_H = (?)_2$
$(3\,4\,5)_8 = (?)_H$
$(8\,7\,9)_{10} = (?)_H$
$(0\,1\,0\,1\,1\,0\,0\,0\,1)_2 = (?)_H$
(b) Explain the role of ASCII code is computer system. **(6)**

Q7 (a) Convert the following: **(6.5)**
(i) $(11.01)_2 = (?)_{10}$
(ii) $(5\,4\,A\,A)_H = (?)_8$
(iii) $(7\,0\,7)_8 = (?)_2$
(iv) $(49.54)_{10} = (?)_2$
(b) Explain EBCDIC code functionality in computer system. **(6)**

Unit-IV

Q8 (a) Discuss various data transmission media. **(6)**
(b) Differentiate between Digital and Analog Transmission. **(6.5)**

Q9 (a) Explain Client-Server architecture. **(6.5)**
(b) Discuss Network topologies. **(6)**

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END TERM EXAMINATION

FIRST SEMESTER [BCA] NOVEMBER-DECEMBER 2018

Paper Code: BCA-107 **Subject: Introduction to Computers & IT**

Time: 3 Hours **Maximum Marks: 75**

Note: Attempt any five questions including Q.no.1 which is compulsory. Select one question from each unit.

Q1 Write short notes of the following: **(Any Five)** **(5x5=25)**

(a) What is the difference between magnetic tape drives and magnetic disk drives?

(b) Draw the block diagram of computer with various components and discuss their functing in detail.

(c) Describe the various network topologies with examples.

(d) What is an instruction set? Explain the various types of addressing modes.

(e) Discuss the various data transmission modes.

(f) Explain ROM, PROM, EPROM and UVEPROM.

UNIT-I

Q2 (a) Discuss the evolution of computers with the technologies used from first to fifth generation. **(6.5)**

(b) What are the various classification of computers. Explain with examples **(6)**

OR

Q3 (a) Define memory. Explain different types of memory used in computers **(6.5)**

(b) Differentiate between static and dynamic RAM. **(6)**

UNIT-II

Q4 (a) What are functionalities of operating system? Explain in detail. **(6.5)**

(b) "An Algorithm is a step by step procedure to solve a problem". Write an algorithm for decimal to binary conversion. **(6)**

OR

Q5 (a) What is a computer software. Discuss the role of assemblers, compilers, interpreter and linker. **(6)**

(b) What is the difference between low level languages and high level languages? Explain with examples **(6.5)**

UNIT-III

Q6 Evaluate the following: **(12.5)**

(a) Convert 39C8 from base 16 to base 2.

(b) Convert 11101100 from gray to binary

(c) Convert 23 from base 10 to base 8.

(d) Multiply 101101 by 110.

(e) Divide 11010 by 101.

OR

Q7 (a) Differentiate between 1's complement and 2's complement in binary system. Given A=123 and B=55. **(6.5)**

(b) Write short notes on grey and ASCII codes. **(6)**

UNIT-IV

Q8 (a) Discuss the various types of networks with examples? What is the difference between intranet and extranet. **(6.5)**

(b) Discuss client server architecture in detail. **(6)**

OR

Q9 Write Short notes on **(any three)**: **(12.5)**

(a) World wide web

(b) FTP

(c) Telnet

(d) HTTP

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END TERM EXAMINATION

FIRST SEMESTER [BCA] NOV.-DEC. - 2019

Paper Code: BCA107 **Subject: Introduction to Computers & IT**

Time: 3 Hours **Maximum Marks: 75**

Note: Q. No. 1 is compulsory. Attempt one question from each unit.

Q1 Attempt the following:- **(5x5=25)**

a) Define Computers. Explain the various characteristics of Computer System.

b) What are Registers? Explain different types of CPU Registers.

c) Convert $(295)_{10}$ to Binary and BCD.

d) Differentiate between multiprogramming and time-sharing operating system.

e) What is an instruction set? Explain various types of addressing modes.

UNIT I

Q2. a) What is generation in Computer terminology? List various computer generations along with the key characteristics of hardware and software technologies in each generation. **(6.5)**

b) What are Input and Output devices? Discuss any 3 of each in detail **(6)**

OR

Q3 a) What do you mean by computer organization? Explain the basic organization of a computer system with the help of a block diagram **(5)**

b) Differentiate the following: **(7.5)**

i) Static and Dynamic RAM

ii) Magnetic Disk and Magnetic Tape

iii) PROM and EPROM

UNIT II

Q4.a) Define Operating System. Discuss two primary objectives of an Operating System. Explain various functions provided by most of the operating system. **(6.5)**

b) Define Algorithm with characteristics. Write an algorithm using flowchart and Pseudocode to find the maximum of N numbers. **(6)**

OR

Q5. Write short notes for the following: **(12.5)**

i) Types of Operating System

ii) Loader and Linker

iii) Process Control Block (PCB)

iv) Flowchart and Pseudocode

v) Multiprocessor Operating System and its advantages

UNIT III

Q6.a) What is the significance of Base in number system? Distinguish among bindary, octal and hexadecimal number system with examples. **(4.5)**

b) Perform the following operations. For subtraction use complement's method: **(8)**

i) $(1100011)_2 - (10111)_2$

ii) $(11001)_2 - (11110)_2$

iii) $(36)_{10} - (87)_{10}$

iv) $(110011)_2 + (11111)_2$

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Q7.a) Explain the following with example: (any 3). **(4.5)**

i) ASCII Code ii) Unicode iii) BCD iv) Grade code

b) Convert the following: **(8)**

i) $(8B5A)_{16}$ = ( )$_{10}$

ii) $(125.75)_{10}$ = ( )$_2$

iii) $(1765)_8$ = ( )$_2$

iv) $(10111.101)_2$ = ( )$_{10}$

UNIT IV

Q8. a) Explain various types of computer network topologies along with their advantages and disadvantages. **(6.5)**

b) Write short notes on any 3 from the following. **(6)**

i) FTP ii) WWW iii) Client Server Architecture iv) Digital and Analog Signals

Q9. a) What are the main components of a data communication system. Explain different types of transmission media used in data communications along with their advantages and disadvantages. **(8.5)**

b) Distinguish between Intranet and Extranet with example. **(4)**

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END TERM EXAMINATION

FIRST SEMESTER [BCA] FEBRUARY 2023

Paper Code: BCA-105 ***Subject: Fundamentals of Computers & IT***

Time: 3 Hours ***Maximum Marks: 75***

Note: Attempt all questions as directed. Internal choice is indicated.

Q1 Attempt **any five** questions:- **(5x5=25)**

(a) List and explain five important characteristics of a computer.
(b) Explain the five Basic functions performed by a computer system.
(c) Differentiate between Multitasking and Multiprogramming.
(d) Distinguish between LAN, MAN, WAN.
(e) Define the Term byte. What is the difference between a bit and byte.
(f) Write full form of the following:- (a) GUI (b) CUI (c) BASIC (d) FORTRAN (e) MICR.

UNIT-I

Q2 (a) What is generation in Computer terminology? Explain various computer generations along withkey characteristics of computers of each generation. **(6.5)**

(b) Explain the following:- (i) Data (ii) Information (iii) RAM (iv) ROM (v) CPU (vi) Auxillary Memory **(6)**

OR

Q3 (a) Define Memory? Explain different type of Memory in Computer System with the help of diagram. **(6.5)**

(b) Write short notes on the Following:- **(6)**
(i) Static Memory and Dynamic Memory
(ii) EPROM AND EEPROM

UNIT-II

Q4 Define Operating System? Explain the role of an operating system with respect to following Function:- **(12.5)**
(a) Process Management
(b) Memory management
(c) Device Management
(d) Security
(e) Command interpretation

OR

Q5 (a) Define the following Terms:- **(8)**
(i) Multiprogramming
(ii) Multitasking
(iii) Multithreading
(iv) Multiprocessing

(b) Give Difference between:- **(4.5)**
(i) Assembler and Loader (ii) Interpreter and compiler (iii) Linker and Loader

UNIT-III

Q6 Convert the following:- **(2.5x5=12.5)**
(a) Convert 23 from base10 to base 8.
(b) Convert 101011011 from base 2 to base 8.
(c) Convert 234 from base 8 to base 10.
(d) Convert E16 from base 16 to base 10.
(e) Perform binary addition of (12) +(18).

UNIT-IV

Q7 (a) What is Computer Network? Explain. **(2.5)**

(b) Discuss the various Network topologies along with their advantages and disadvantages. **(10)**

OR

Q8 (a) Discuss various data transmission media. **(6)**

(b) Differentiate between Digital and Analog Transmission. **(6.5)**

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End Term Examination

FIRST Semester [BCA] January 2024

Paper Code: BCA-105	**SUBJECT: Fundamentals of Computers & IT**
Time: 3 Hours	**Maximum Marks: 60**

Note: Attempt five questions in all including Q.No.1 which is compulsory. Select one question from each unit.

Q1 Answer **any five** of the following: **(5x4=20)**

a) Explain the block diagram of a computer and its components. Discuss their functioning in details
b) Differentiate between Impact and Non-Impact Printers
c) Distinguish between Loader and Linker
d) Explain transmission modes.
e) Describe ASCII and EBCDIC Codes
f) Briefly describe different types of network

Unit-I

Q2 a) Define Computers and its features. **(5)**

b) Explain Classification of Computers with example. **(5)**

OR

Q3 a) Define memory. Distinguish between Primary and Secondary Memory. **(5)**

b) Explain input and Output devices and give three examples of each input and output device. **(5)**

Unit-II

Q4 a) Define the Operating System. Explain the functions of the Operating System. **(5)**

b) Describe the Booting Process in the Operating System. **(5)**

OR

Q5 a) Explain types of Operating Systems. **(5)**

b) Differentiate between Low-Level Languages and High-Level Languages. **(5)**

OR

c) Differentiate between Compiler and Interpreter. **(5)**

Unit-III

Q6 a) Write base values of binary, octal, decimal, and hexadecimal Number systems. **(2)**

b) Convert the following binary numbers to octal and hexadecimal Numbers **(8)**

(i) 1110001000
(ii) 1010100
(iii) 11001010
(iv) 10101001

OR

Q7 a) Distinguish between 1's compliment and 2's complement. **(2)**

b) Perform binary Addition on the following: **(2)**
(i) (14)+(12)
(ii) (16)+(5)

c) Convert Decimal to binary, octal, and hexadecimal. **(6)**

(i) $(457)_{10}$
(ii) $(10.75)_{10}$

Unit-IV

Q8 a) Explain various Network Topologies with Advantages and Disadvantages **(5)**

b) Describe the Internet and its uses. How internet is different from Intranet? **(5)**

OR

Q9 a) Define Transmission Media. **(4)**

b) Write short notes on the following: **(Any three)** **(6)**
(i) IoT
(ii) Cloud Computing
(iii) Domain Name
(iv) Client-Server Model
(v) Protocols- FTP, HTTP, SMTP

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