

VIDYA VIHAR COLLEGE

MAULANA MAZHARUL HAQUE ARABIC & PERSIAN UNIVERSITY, PATNA

BCA - I YEAR

INTERNAL ASSIGNMENT – 2021

Session : 2021 - 24

PAPER : I

INRODUCTION TO INFORMATION TECH.

[MAX MARKS : 20]

The question paper consists of 04 descriptive type questions. Each question is of **05 marks** (word limit 300 words) . Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

1. Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 20]

1. Explain the working of all type of printer in details ?
2. What do you mean by computer network? Describe its advantages and disadvantages. Also explain various types of networks.
3. What is a memory? Differentiate between primary and secondary memory.
4. Explain the need of information in our lives. Also describe the essential components of information technology.

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PAPER : II

COMPUTER MATHEMATICAL FOUNDATION

[MAX MARKS : 20]

The question paper consists of two section. Each question is of **05 marks** (word limit 300 words) . Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Section : A

Short answer type questions (No Word Limit). Attempt all questions. [02x5 = 10]

i. Find the values of X,Y,Z from the matrix equation

$$\begin{bmatrix} X-3 & 3X-Z \\ X+Y+2 & X+Y+Z \end{bmatrix} = \begin{bmatrix} -2 & 0 \\ 5 & 6 \end{bmatrix}$$

ii. Write down all possible subset of $A = \{2,3\}$

iii. Find the value of A and B when :

(a) $(a+b, b-2) = (5, 1)$

(b) $(a+b, 2b-3) = (4, -5)$

iv. If $A = \{2,3,5,8\}$, $B = \{1,2,3,4,5\}$; find

(a) $A \cup B$ (b) $A \cap B$

v. If $A = \{2,3,4\}$; then find $P(A)=?$

Section : B

Long answer type questions (No Word Limit). Attempt any 02 questions. 02x5 = 10]

i. If $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$, then find the scalar λ so that $A^2 = \lambda A - 2I$

ii. In a group of 400 people, 250 can speak Hindi and 200 can speak English. How many people can speak both Hindi and English?

iii. If $\left(\frac{x}{3} + 1, y - \frac{2}{3}\right) = \left(\frac{5}{3}, \frac{1}{3}\right)$ find the value of X and Y.

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PAPER : III

COMMUNICATION AND SOFT SKILL

[MAX MARKS : 20]

The question paper is in consists two sections A & B. **Section - A** consists of 10 objective type questions. Attempt all questions. **Section - B** consists of 02 descriptive type question. Each question is of **05** marks (word limit 300 words). Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Section : A

Objective type questions. Attempt all questions. [01 x 10 = 10]

1. means communication without words.
(a) Object communication
(b) written communication
(c) Oral communication
(d) Non-verbal communication
2. The person who transmits the message is called
(a) Channel (b) Sender (c) Receiver (d) response
3. aims at making people work together for the common good of the organization.
(a) Communication (b) conversation (c) combination (d) connection
4. A connects the sender to the receiver.
(a) Channel (b) Noise (c) Communication (d) Feedback
5. is an unwanted disturbance.
(a) Wrong communication (b) Noise (c) words error (d) Negligence

6. Communication that takes place between the members of an organization within itself is.....
 (a) External (b) formal (c) informal (d) internal.
7. The primary goal of communication is to
 (a) To create barriers (b) to create noise (c) to effect a change (d) none of these.
8. Teaching is an art . The underlined word is a/an
 (a) Preposition (b) Adverb (c) Noun (d) Verb
9. She her mother.
 (a) Calling (b) calls (c) called (d) call
10. Are doing their work.
 (a) I (b) She (c) They (d) If

Section : B

Long answer type questions (maximum limit 250-300 words). Attempt any 02 questions. [02x5 = 10]

1. Explain the communication process in your own words.
2. Describe Non-verbal communication. Give proper example to justify it.
3. Elaborate professional and general communication. What are the benefits of good communications.

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PAPER : V

PROGRAMMING IN “C”

[MAX MARKS : 20]

The question paper consists of 04 descriptive type question. Each question is of **05 marks** (word limit 300 words) . Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 4 = 10]

1. (a) Write a program to find the length of a string using Pointer ?
(b) Describe the static variable with example.
2. Explain the difference between an array, structure and an enumerated data type.
3. What do you mean by C Token ? Explain each in details using a sampling of CPL.
4. Write a ‘C’ program to display 2,4,6,8,10,22,24,26 and 30 even numbers when the number entered by the user is 30.

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PAPER : VI

OPERATING SYSTEM

[MAX MARKS : 20]

The question paper consists of two section. Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Section : A

Objective type questions. Attempt all questions. [01 x 10 = 10]

1. An operating system is
 - (a) A collection of hardware components
 - (b) A collection of input – output devices
 - (c) A collection of software routines
 - (d) All of the above

2. Time sharing provides
 - (a) Disk management
 - (b) File system management
 - (c) Concurrent execution
 - (d) All of the above

3. The primary job of the operating system of a computer is to
 - (a) Command resources
 - (b) Manage resources
 - (c) Provide utilities
 - (d) Provide connection

4. The primary function of an operating system is
 - (a) Memory management
 - (b) Process management
 - (c) Disks and I/O device management
 - (d) All of the above

5. Operating system maintains the page table for
(a) Each process (b) Each thread (c) Each instruction (d) Each address
6. Which is not the state of the process?
(a) Blocked (b) Running (c) Ready (d) Privileged
7. What should be the extension to execute files?
(a) EXE (b) BAT (c) COM (d) All of these
8. The kernel keeps track of the state of each executing program by using a data structure called.
(a) process control block
(b) user control block
(c) file control block
(d) memory control block
9. What is the process by which the operating system is loaded into the memory?
(a) Booting (b) Processing (c) Loading (d) Multi – tasking
10. If there are 32 segments, each of size 1 KB then the logical address should have
(a) 13 bits (b) 14 bits (c) 15 bits (d) 16 bits

Section : B

Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 2 = 10]

1. What is operating System? Explain the abstract view of the components of a computer system.
2. Explain different types of tasks done by OS. Or Write different services provided by operating system.

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B.C.A. 1ST YEAR

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PAPER: VII

COMPUTR SYSTEM ARCHITECTURE

[MAX MARKS : 20]

The question paper consists of two section. Attempt all questions. Use graphs, charts and diagrams to explain your answer if necessary.

Section : A

1. Objective type questions. Attempt all questions. [01 x 10 = 10]

1. Find the Boolean function of $xz+xyz$ algebraically

- (a) $Z(x+y)$ (b) $y(x+z)$ (c) $x(y+z)$ (d) z

2. The binary subtractor $(0 - 1)$ equals:

- (a) 0 with borrow (b) 1 with no borrow (c) 0 with no borrow (d) 1 with borrow

3. What is the form of the Boolean expression of $AB + BC$?

- (a) Product of sum
(b) Sum of product
(c) K map
(d) Matrix

4. How many selector lines do an 8 input multiplexer have?

- (a) 1 (b) 3 (c) 6 (d) 64

5. Dual of $a + b . c$ is :

- (a) $(a+b).(a+c)$ (b) $a.(b+c)$ (c) $a^1.(b^1+c^1)$ (d) $(a^1+b^1).(a^1+c^1)$

6. In a half adder carry is obtained by using gate.

- (a) OR (b) NAND (C) AND (d) Ex-OR

7. is a fastest memory to copy instruction and operands.
(a) RAM (b) ROM (c) Cache (d) HDD
8. Normally digital computer are based on
(a) AND and OR gates
(b) NAND and NOR gates
(c) NOT gates
(d) None of these
9. Negative number are stored in the System in the form of
(a) 2's complement (b) 1's complement (c) Both (d) Only 1's
10. The binary addition (10+1001) equals to :
(a) 1011 carry 0 (b) 1001 carry 1 (c) 1010 carry 0 (d) 1 with borrow

Section : B

2. Descriptive type questions (maximum limit 250 - 300 words). Attempt all questions. [05 x 2 = 10]

1. Draw and explain a 4-bit adder-subtractor circuit?
2. Explain the following?
 - i. DMA
 - ii. Virtual Memory
 - iii. Counter
 - iv. Cache Memory
 - v. Associative Memory