



B.C.A. – 1st Year

SEM – I & II

Previous Year

Question Papers

Academic Year

(2024-25)





B.C.A. – 1st Year

SEM – I

Previous Year

Question Papers

Academic Year

(2024-25)



Seat No. **OCT_NOV_2024 WINTER EXAMINATION****11949 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Business Communication****Sub. Code: 80864/88344**

BCA-I Sem-I

Day and Date: JANUARY ,11-01-2025

Time: 02:30 PM To 05:30 PM

Instructions:**Special Inst.: Instructions:**

1) Que. 1 and Que. 8 are compulsory and attempt any three questions from Que. No. 2 to Que, No. 7.

2) Figures to the right indicate marks.



Total Marks: 80

Q1) Solve following MCQ.**[12]**

- i. ----- on letter express the responsibility of the writer.
- A. Date
B. Signature
C. Salutation
D. Courtesy
- ii. When information share between similar level of the people is called as ----- communication.
- A. Vertical
B. Crosswise
C. Horizontal
D. Mix
- iii. Enclosure is written on the ----- of the letter.
- A. Left side
B. Right side
C. After signature
D. Before signature
- iv. Minutes are example of ----- communication.
- A. Written
B. Oral
C. Informal
D. Two way
- v. Recalling is one of the step in -----
- A. Hearing
B. Verbal Communication



- C. Listening
- D. Non verbal communication

vi. Communication speed depends upon intensity of the situation is called-----

- A. Interaction
- B. Two way
- C. Exchange
- D. Dynamic Process

vii. Listening is a ----- process.

- A. Conscious
- B. Unconscious
- C. Natural
- D. All

viii. When we are sending huge information to another person then which barrier occurs?

- A. Semantic and language
- B. Physical
- C. Organisational
- D. Socio-psychological

ix. Open mind is one of the way to overcome ----- barrier.

- A. Information overload
- B. Filtering
- C. Resistance to change
- D. Status block

x. Eye contact is one of the type of ----- communication.

- A. Formal
- B. Informal
- C. Non Verbal
- D. Verba

xi. Similar sounding create which barrier?

- A. Filtering
- B. Defect in medium
- C. Self Centric
- D. Semantic

xii. In the communication process decoding means -----

- A. Converting words in symbols
- B. Converting symbols into words
- C. Conveying important message



QP-2930

D. Using right media for communication

- Q2)** Define listening and differentiate between listening and hearing in details. [16]
- Q3)** Write a letter to supplier asking details of Fridge availability as you need to know [16] about brand, capacity, prize and discount as a retailer.
- Q4)** What is meant by Communication? Explain the objectives and Process of [16] Communication.
- Q5)** Explain the significance of Written Communication. Broadly discuss its Merits and [16] Demerits.
- Q6)** 1. Define seminar and explain its rules. [16]
2. "We can communicate to another person either verbally or non-verbally."How?
- Q7)** "Communication faces various barriers" explains statement in details. [16]
- Q8)** Write short note (Any four) [20]
- Vertical Communication
 - Guidelines for effective listening
 - Merits and demerits of oral communication
 - Socio-psychological barrier
 - Process of communication
 - Essential parts of letter

End Of Question Paper

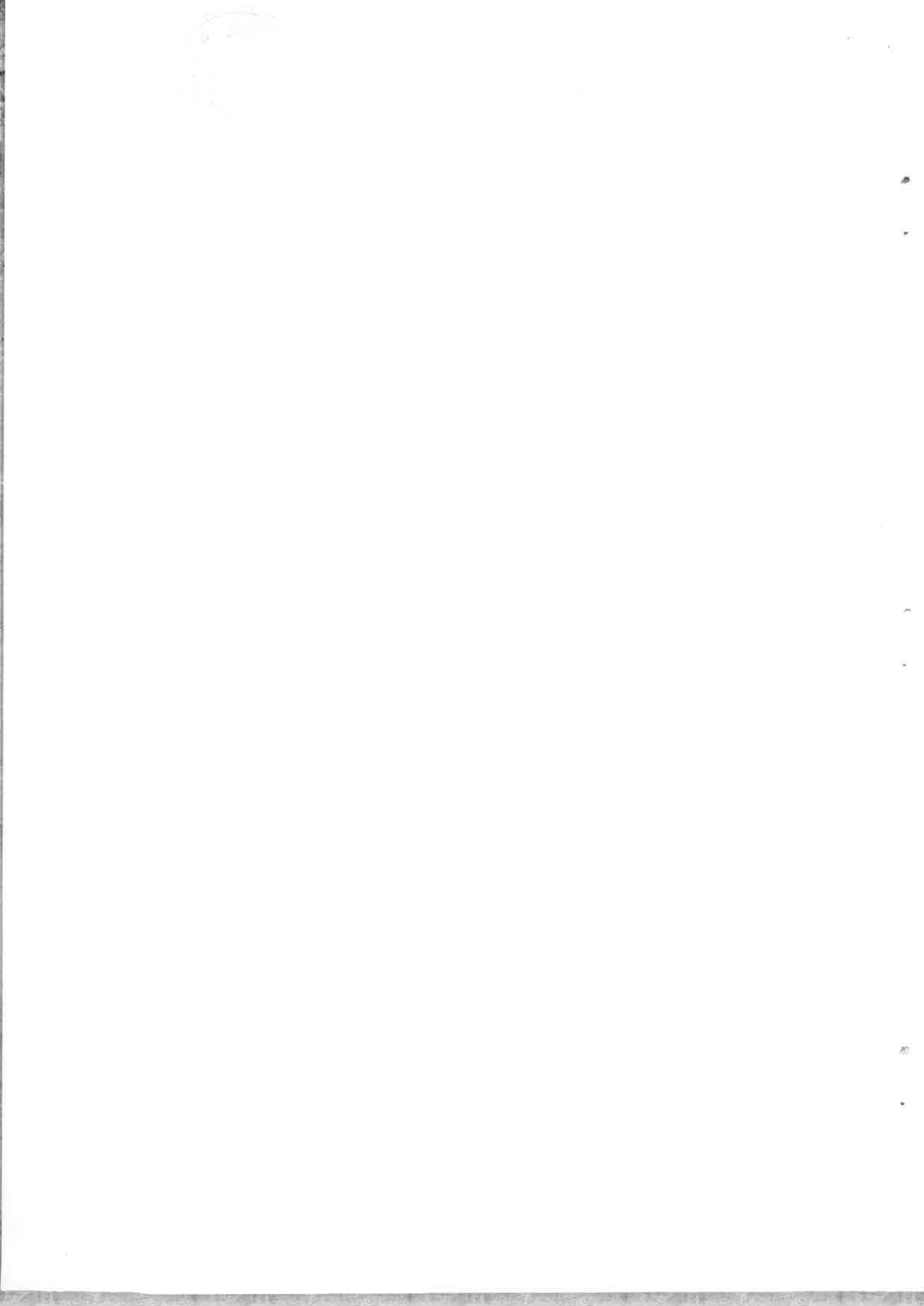
Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7810) B.C.A. (CBCS) (80864) Business Communication Part 1 SEM 1

2] (7824) Bachelor of Computer Application (CBCS)NEP (88344) Business Communication Part 1 SEM 1



Seat No.

BCA-I sem. I

MAR_APR 2025 SUMMER EXAMINATION
11949 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Business Communication
Sub. Code: 80864/88344



Day and Date: MAY ,14-05-2025

Total Marks: 80

Time: 10:30 AM To 01:30 PM

Instructions:

- Special Inst.:** 1) Que. 1 and Que. 8 are compulsory and attempt any three questions from Que. No. 2 to Que. No. 7.
 2) Figures to the right indicate marks.

Q1) Solve following MCQ.

[12]

- i. Communication is a----- way process.
 A. One
 B. Two
 C. Three
 D. Four
- ii. The upward communication flow from-----
 A. a subordinate to a superior.
 B. a subordinate to a subordinate.
 C. a superior to a superior.
 D. a superior to a subordinate.
- iii. -----is not example of non-oral communication.
 A. letter.
 B. e-mail.
 C. telephone.
 D. fax.
- iv. ----- make audio-visual communication effective.
 A. colorful pictures
 B. clearly written.
 C. speak politely
 D. silent.
- v. The most important part of the letter is -----
 A. the heading.
 B. date
 C. body of the letter.
 D. post script



- vi. Communication means information, feeling and thoughts, with others.
- to receive.
 - exchange of.
 - conveying.
 - all the above.
- vii. Bad Listeners will make communication-----
- good.
 - bad.
 - excellent.
 - rather favorable
- viii. Contents of offers and quotation are-----
- details of product.
 - pleasing tone.
 - request for price.
 - request for traders information.
- ix. The letter of acknowledgement-----
- provides a record.
 - shows courtesy.
 - avoids misunderstanding
 - serves all the above purposes.
- x. The official record of the proceeding of a meeting is called-----
- minutes
 - notice.
 - both 1 & 2.
 - notes.
- xi. Open mind is one of the way to overcome ----- barrier.
- Information overloads
 - Filtering
 - .Resistance to change
 - Status block
- xii. ----- on letter express the responsibility of the writer.
- Date
 - .Signature
 - Salutation
 - Courtesy

Q2) Attempt two-

- What is meaning and importance of business communication?
- What is Draft a letter for business enquiry ?
- Write briefly on communication etiquettes.

[16]



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- Q3) Explain different types of communication briefly. [16]
- Q4) What is importance of listening in business communication? Explain difference between hearing and listening? [16]
- Q5) What is difference between personal letter and business letter? What are essentials of a business letters? [16]
- Q6) Write a seminar on ChatGpt stating objective, structure and references [16]
- Q7) Define seminar and explain its rules. [16]
- Q8) Write short notes (Any four out of six) 20 [20]
1. Grapevine Communication
 2. Communication barriers
 3. Strategies for effective Presentations
 4. Business letters essentials
 5. listening process
 6. visual and audio visual means of communication

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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1] (7810) B.C.A. (CBCS) (80864) Business Communication Part 1 SEM 1

2] (7824) Bachelor of Computer Application (CBCS)NEP (88344) Business Communication Part 1 SEM 1



Seat No.



QP-2923

Total No. of Pages : 3

OCT_NOV_2024 WINTER EXAMINATION

11949 Bachelor of Computer Application(BCA) NEP 2.0

Sub. Name: Introduction to Programming Using C

Sub. Code: 80862/88342 *BCA-I Sem-I*

Day and Date: JANUARY ,09-01-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: 1) Que.1 and Que. 8 are compulsory

2) Attempt any three Questions from Que. No.2 to Que. No. 7.

Q1) Choose the correct answer in each of the following questions.

[12]

- i. What is the purpose of the `typedef` keyword in C?
 - A. It is used to create a new data type.
 - B. It is used to declare a variable.
 - C. It is used to define a function.
 - D. It is used to include header files.

- ii. What is the scope of a global variable in C?
 - A. It is limited to the function in which it is declared.
 - B. It is limited to the block in which it is declared.
 - C. It is limited to the file in which it is declared.
 - D. It is limited to the program in which it is declared.

- iii. What is the purpose of the `malloc` function in C?
 - A. It is used to declare a new variable.
 - B. It is used to allocate memory dynamically.
 - C. It is used to create a new file.
 - D. It is used to print output to the console.

- iv. Which is valid C expression?
 - A. `int my_num = 100,000;`
 - B. `int my_num = 100000;`
 - C. `int my num = 1000;`
 - D. `int $my_num = 10000;`

- v. What does the `sizeof` operator in C return?
 - A. The size of a variable in bytes.
 - B. The value of a variable.
 - C. The address of a variable.
 - D. The type of a variable.

- vi. Which header file is needed to use dynamic memory allocation functions like

`malloc` and `free` in C?

- A. `<stdlib.h>`
- B. `<memory.h>`
- C. `<malloc.h>`
- D. `<stdio.h>`

vii. In C, which operator is used for logical AND?

- A. `&&`
- B. `&`
- C. `and`
- D. `AND`

viii. Which of the following functions is used to compare two strings in C?

- A. `compare()`
- B. `strcmp()`
- C. `strcompare()`
- D. `strcasecmp()`

ix. What is the purpose of the `const` keyword in C?

- A. It makes a variable constant and unchangeable.
- B. It specifies a variable as an integer.
- C. It is used to declare a constant value.
- D. It creates a constant function.

x. In C, which operator is used to access the address of a variable?

- A. `&` (ampersand)
- B. `*` (asterisk)
- C. `@` (at)
- D. `#` (hash)

xi. What is the purpose of the `do...while` loop in C?

- A. It is used for iteration.
- B. It is used for decision-making.
- C. It ensures that a block of code is executed at least once.
- D. It is used to break out of a loop.

xii. In C, which function is used to close a file?

- A. `close()`
- B. `fclose()`
- C. `file_close()`
- D. `endfile()`

Q2) What is branching statement? Explain `if` and `if else` with appropriate example. [16]

Q3) What is array? Illustrate single dimension and two-dimension arrays with example. [16]



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[16]

Q4) Describe different storage classes in C.

Q5) What is file? Explain different types of files used to store data in C programming. **[16]**
Also explain different file opening modes.

Q6) What is algorithm? Write algorithm to accept three numbers and find maximum **[16]**
number among three.

Q7) What is variable? Explain local and global variable with example. **[16]**

Q8) Write short note on any four. **[20]**

- a. Flowchart
- b. Stdio.h
- c. Escape Sequences
- d. Break
- e. Malloc
- f. Vim editor

End Of Question Paper

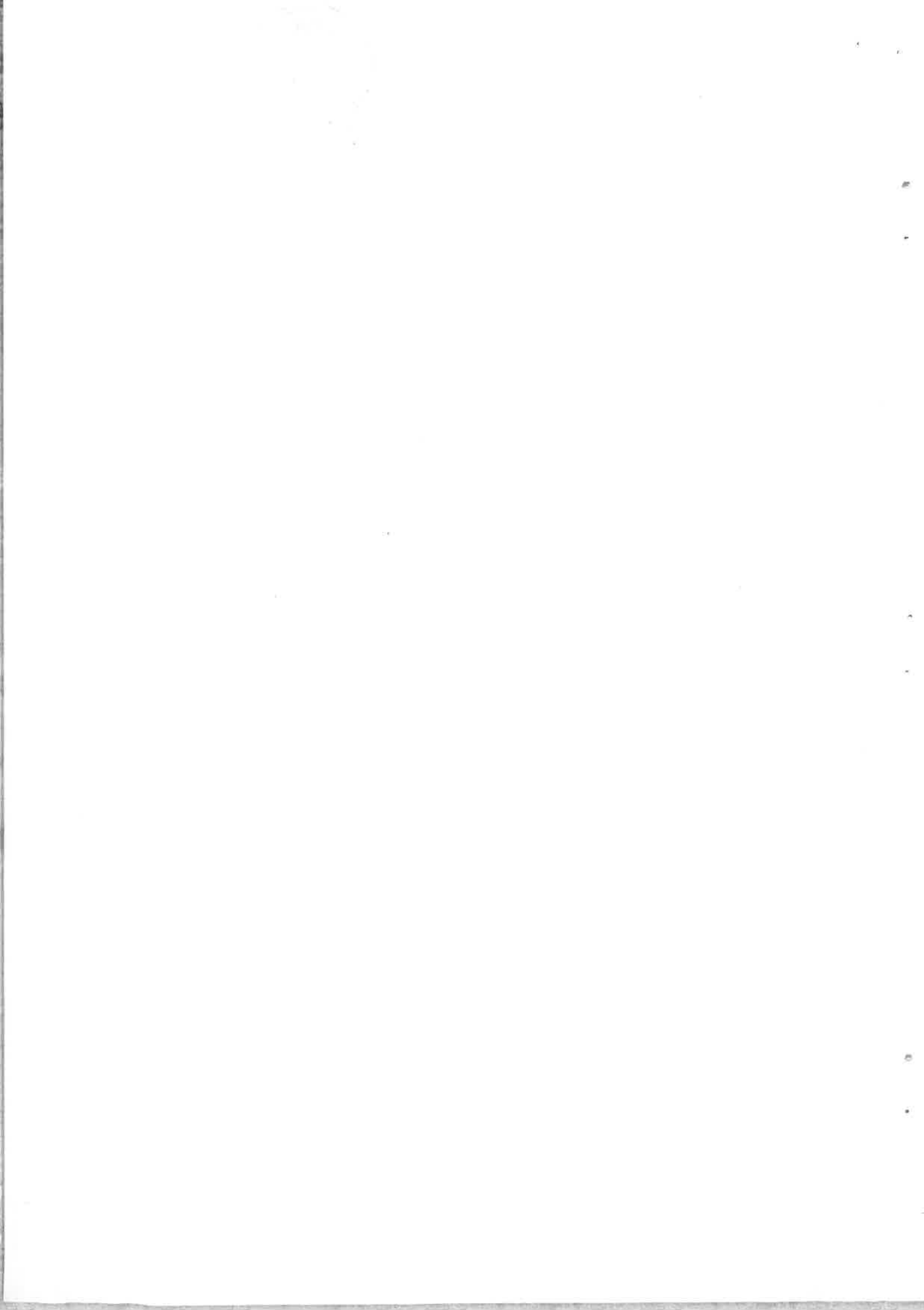
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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7824) Bachelor of Computer Application (CBCS)NEP (88342) Introduction to Programming Using C Part 1 SEM 1

2] (7810) B.C.A. (CBCS) (80862) Introduction to Programming Using C Part 1 SEM 1



Seat No. Sem -I**OCT_NOV_2024 WINTER EXAMINATION****12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Computer Architecture Sem -I****Sub. Code: 109808****Day and Date: FEBRUARY ,17-02-2025****Time: 10:30 AM To 12:30 PM****Instructions: 1. Figures to the right indicate full marks****Special Inst.: 1) Que.No.1 and Que. No. 7 are compulsory.****2) Attempt any THREE questions from Que. No.2 to Que. No. 6.****Total Marks: 60****Q1) Solve following MCQ.****[10]**

- i. Convert binary to octal: $(110110001010)_2$
 - A. $(5512)_8$
 - B. $(6612)_8$
 - C. $(4532)_8$
 - D. $(4130)_8$
- ii. The decimal equivalent of the binary number $(1011.011)_2$ is
 - A. $(11.175)_{10}$
 - B. $(11.375)_{10}$
 - C. $(10.123)_{10}$
 - D. $(9.23)_{10}$
- iii. The gates required to build a half adder are ____
 - A. EX_OR Gate And AND Gate
 - B. EX-OR Gate And OR Gate
 - C. EX-NOR Gate And AND Gate
 - D. EX-OR Gate And NOR Gate
- iv. 2's complement of binary number 0101 is
 - A. 1101
 - B. 1111
 - C. 1011
 - D. 1110
- v. In boolean algebra, the OR operation is performed by which properties?
 - A. Associative Properties
 - B. Commutative Properties
 - C. Distributive Properties
 - D. All Of Above
- vi. The gates required to build a half adder are ____



- A. EX-OR gate and NOR gate
- B. EX-OR gate and OR gate
- C. EX-OR gate and AND gate
- D. EX-NOR gate and AND gate

vii. Which of the examples below expresses the commutative law of multiplication?

- A. $A + B = B + A$
- B. $A \cdot B = B + A$
- C. $A \cdot (B \cdot C) = (A \cdot B) \cdot C$
- D. $A \cdot B = B \cdot A$

viii. Why do we use gray codes?

- A. To count the no of bits changes
- B. To rotate a shaft
- C. Error correction
- D. Error Detection

ix. Whose operations are more faster among the following?

- A. Combinational circuits
- B. Sequential circuits
- C. Latches
- D. Flip-flops

x. Which memory has largest storage capacity among all?

- A. Auxiliary memory
- B. RAM
- C. Associative memory
- D. Cache memory

Q2) What are logic gates? Explain different logic gates with their truth tables and [10] diagram.

Q3) What is Flip flops? Explain SR and D flip flop with necessary diagrams. [10]

Q4) What is Karnaugh map (K' Map)? Why it is used? Explain with an example. [10]

Q5) Explain Binary, Octal and Hexadecimal number system and with suitable examples [10] number conversion from Decimal to Binary, Octal and Hexadecimal?

Q6) Describe in brief Memory Hierarchy of Memory organization in detail. [10]

Q7) Write short note (Any Four out of Six) [20]

a. SOP and POS [5]

b. Decoders and Encoder [5]

- c. Half Adder and Full Adder
- d. Program Counter and Accumulator registers
- e. DeMorgan Laws
- f. Shift registers



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[5]

[5]

[5]

[5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (12329) Bachelor Of Computer Application (NEP2.0) (109808) Computer Architecture Part 1 SEM 1



MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Computer Architecture****Sub. Code: 109808****Day and Date: JUNE ,10-06-2025****Total Marks: 60****Time: 02:30 PM To 05:30 PM****Instructions: 1. Figures to the right indicate full marks****Special Inst.: 1) Que.1 and Que. 7 are compulsory.****2) Attempt any THREE questions from Que. No.2 to Que. No. 6.****Q1) Solve following MCQ.****[10]****i. Convert the following binary number to decimal. (01010)**

- A. 11
- B. 15
- C. 35
- D. 10

ii. Convert (214)₈ into decimal

- A. (140)₁₀
- B. (141)₁₀
- C. (142)₁₀
- D. (130)₁₀

iii. 1's complement of 11100110 is

- A. 00011001
- B. 10000001
- C. 00011010
- D. 00000000

iv. DeMorgan's theorem states that.....

- A. $(AB)' = A' + B'$
- B. $(A + B)' = A' * B'$
- C. $A' + B' = A'B'$
- D. $(AB)' = A' + B$

v. Universal gates are

- A. NAND & NOR
- B. AND & OR
- C. XOR & OR
- D. EX-NOR & XOR

vi. A full adder logic circuit will have

- A. Two inputs and one output
 - B. Three inputs and three outputs
 - C. Two inputs and two outputs
 - D. Three inputs and two outputs
- vii. Which statement below best describes a Karnaugh map?
- A. It is simply a rearranged truth table
 - B. The Karnaugh map eliminates the need for using NAND and NOR gates
 - C. Variable complements can be eliminated by using Karnaugh maps
 - D. A Karnaugh map can be used to replace Boolean rules
- viii. Reflected binary code is also known as.....
- A. BCD code
 - B. Binary code
 - C. ASCII code
 - D. Gray Code
- ix. The logic circuits whose outputs at any instant of time depends only on the present input but also on the past outputs are called
- A. Combinational circuits
 - B. Sequential circuits
 - C. Latches
 - D. Flip-flops
- x. Which memory is fast memory.....
- A. Main memory
 - B. Associative memory
 - C. Cache memory
 - D. Auxiliary memory
- Q2) What is Digital Logic? Describe different types of logic gates with truth table ? [10]
- Q3) Explain step by step method for converting binary to octal and binary to hexadecimal number system with suitable example. [10]
- Q4) Explain combinational circuits Full adder and Full subtractor. [10]
- Q5) Explain about the clocked S-R flip flop with logic diagram? Describe its operation with truth table? [10]
- Q6) State and explain different types of computer registers. [10]
- Q7) Write short note(any Four out of Six) [20]
- a. Kmap [5]
 - b. Error detecting and correcting codes [5]

- | | | |
|----|-------------------------------|-----|
| c. | Multiplexer and Demultiplexer | [5] |
| d. | Main Memory | [5] |
| e. | Synchronous binary count | [5] |
| f. | Interrupts | [5] |

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (12329) Bachelor Of Computer Application (NEP2.0) (109808) Computer Architecture Part 1 SEM 1



Seat No. Semi**OCT_NOV_2024 WINTER EXAMINATION****12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Mathematics Foundations to Computer Science-I****Sub. Code: 109807** *Sem - I***Day and Date: FEBRUARY ,15-02-2025****Time: 10:30 AM To 01:30 PM****Total Marks: 80****Instructions: 1. Use of Scientific calculator is allowed****Special Inst.:** 1) Que.1 and Que. 8 are compulsory.
2) Attempt any FOUR questions from Que. No.2 to Que. No. 7.
3) Figures to the right indicate marks.

- Q1) A.** Select the correct alternative and rewrite **[10]**
- i. What is the cardinality of the set $\{a, b, c, d, e\}$?
- A. 5
B. 4
C. 3
D. 6
- ii. Which of the following properties must an equivalence relation satisfy?
- A. Reflexive, Asymmetric, Transitive
B. Reflexive, Antisymmetric, Transitive
C. Reflexive, Symmetric, Transitive
D. Reflexive and Transitive only
- iii. Which of the following statements is true about an equivalence relation?
- A. It never creates distinct subsets
B. It always partitions a set into disjoint subsets
C. It only contains reflexive pairs
D. It must be antisymmetric
- iv. If there are 6 shirts and 4 pairs of pants, how many different outfits can be made by choosing one shirt and one pair of pants?
- A. 10
B. 2
C. 24
D. 15
- v. In how many ways can 3 people be arranged in a row if one specific person must always be first?
- A. 6
B. 2
C. 3
D. 1

vi. The recurrence relation for the Fibonacci sequence is:

- A. $F_n = F_{n-1} + F_{n-2}$
 B. $F_n = F_{n-1} + 2F_{n-2}$
 C. $F_n = 2F_{n-1} + F_{n-2}$
 D. $F_n = F_{n-1} - F_{n-2}$



vii A graph with no self-loops and no multiple edges is called

- A. a multigraph
 B. a pseudo graph
 C. a complete graph
 D. a simple graph

vii A graph in which there is a path between every pair of vertices is called

- i. A. a complete graph
 B. a connected graph
 C. a disconnected graph
 D. a pseudo graph

ix. For two matrices A and B to be added, they must have:

- A. The same number of rows
 B. The same number of columns
 C. The same order (rows and columns)
 D. Any random order

x. The determinant of a singular matrix is always

- A. 0
 B. 1
 C. -1
 D. ± 1

B. Solve the following questions (Any two out of three) [10]

1. Explain the difference between polynomial, exponential, and logarithmic functions with examples.
2. State and explain the Addition and Multiplication principles of counting with examples.
3. Define the terms walk, trail, and path in a graph with examples.

Q2) A.
$$\begin{pmatrix} 11 & 12 & -3 \\ 5 & 6 & -8 \\ 3 & 8 & 1 \end{pmatrix}$$
 [5]

Compute the determinant of the matrix

B.
$$A = \begin{pmatrix} 0 & 1 \\ -1 & 0 \end{pmatrix}$$
 [5]

Define orthogonal matrix and check whether is orthogonal or not?

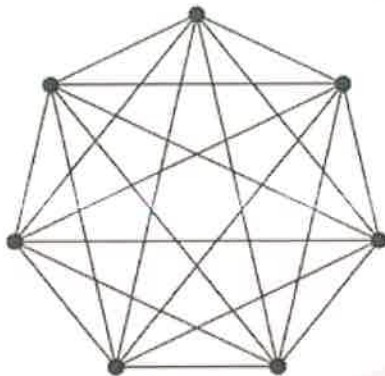
Q3) A. Let $A = \{\text{all straight lines in a plane}\}$ and define R such that $L_1 R L_2 \Rightarrow L_1 \parallel L_2$. Prove that R is an equivalence relation. [5]

B. Define the inverse of a function $f(x)$. Find the inverse of $f(x) = 2x + 3$. Verify it. [5]

Q4) A. Find the number of ways to arrange the letters in the word "MATHEMATICS" [5]

B. Find the coefficient of x^5 in the expansion of $(2x + 3)^7$ using the Binomial Theorem. [5]

Q5) A. Define a complete graph. How many edges does a n complete graph with vertices have? Check given graph is a complete graph or not. [5]



B. Define an Eulerian graph. State and prove the necessary and sufficient conditions for a graph to be Eulerian. [5]



Q6) Calculate the inverse of a given matrix and check whether it is an Orthogonal matrix or not [10]

$$\begin{bmatrix} \frac{1}{\sqrt{2}} & \frac{1}{\sqrt{2}} & 0 \\ -\frac{1}{\sqrt{2}} & \frac{1}{\sqrt{2}} & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

Q7) Let $A = \{1, 2, 3, 4, 5\}$, $B = \{2, 4, 6, 8, 10\}$ find i) $A \cup B$ ii) $A \cap B$ iii) $A \times B$ iv) $B \times A$ v) $A - B$ vi) $B - A$ vii) Is there any mapping between A and B [10]

Q8) Attempt any 4 questions out of 6 [20]

A) Define binomial coefficients and prove that $\binom{n}{r} = \binom{n}{n-r}$.

B) A password consists of 4 letters followed by 3 digits. How many different passwords of a maximum length of 7 can be formed if repetition is allowed?

C) What is the difference between a simple graph and a multigraph? Give an example.

D) Define a subgraph. Give an example and explain how a subgraph is formed.

E) Differentiate between an upper triangular matrix and a lower triangular matrix with examples.

F) Define the inverse of a matrix. What is the condition for a matrix to have an

inverse?



QP-3257

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer
Application (NEP2.0)

(109807) Mathematics Foundations to Computer Part 1 SEM 1
Science-I



8122466

MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Mathematics Foundations to Computer Science-I****Sub. Code: 109807**

Day and Date: JUNE ,09-06-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM

Instructions: 1. Use of Scientific calculator is allowed**Special Inst.: 1) Que.1 and Que. 8 are compulsory.****2) Attempt any FOUR questions from Que. No.2 to Que. No. 7.****3) Figures to the right indicate marks.****Q1) A. Select the correct alternative and rewrite [10]****i. Which of the following properties must an equivalence relation satisfy?**

- A. Reflexive, Asymmetric, Transitive
- B. Reflexive, Symmetric, Transitive
- C. Reflexive, Transitive only
- D. Reflexive, Symmetric only

ii. Which of the following is an example of a finite set?

- A. integers
- B. real numbers
- C. The set of vowels in English alphabet
- D. prime numbers

iii. According to the Pigeonhole Principle, if 10 pigeons are placed in 9 pigeonholes, then at least one pigeonhole must contain at least _____ pigeons

- A. 5
- B. 2
- C. 3
- D. 4

iv. Which of the following statements is true about an equivalence relation?

- A. It always partitions a set into disjoint subsets
- B. It only contains reflexive pairs
- C. It must be antisymmetric
- D. It never creates distinct subsets

v. How many ways can a committee of 3 be chosen from a group of 7 people?

- A. 35
- B. 21
- C. 10
- D. 840

vi. A closed walk in which no edge is repeated is called a

- A. path
- B. circuit
- C. walk
- D. trail

vii A graph with no self-loops and no multiple edges is called

- A. a multigraph
- B. a pseudo graph
- C. a digraph
- D. a simple graph

viii If the determinant of a square matrix is nonzero, the matrix is

- i. A. singular
- B. non singular
- C. symmetric
- D. anti symmetric

ix. For two matrices A and B to be added, they must have

- A. The same number of rows
- B. The same number of columns
- C. The same order (rows and columns)
- D. Any random order

x. What is the cardinality of the set $\{1, a, 4, s, w, z\}$

- A. 5
- B. 6
- C. 4
- D. 2

B. Solve the following questions (Any two out of three)

[10]

1. Define exponential and logarithmic functions. Calculate $\log_2(64)$ and 2^{16} . Explain their relationship.
2. State and explain the Addition and Multiplication principles of counting with examples.
3. Define connected and disconnected graphs. Draw the graph G with vertices $V=\{1, 2, 3, 4, 5\}$ and edges $E=\{(1,2), (2,3), (1,4), (1,5)\}$ and determine if the graph is connected or disconnected.

Q2) A. What is an identity matrix? Give an example. How is it denoted symbolically for n rows and columns? Write an identity matrix for 4 rows and 4 columns.

[5]

B.

$$\begin{bmatrix} \frac{1}{\sqrt{2}} & -\frac{1}{\sqrt{2}} \\ \frac{1}{\sqrt{2}} & \frac{1}{\sqrt{2}} \end{bmatrix}$$

[5]

Define orthogonal matrix and check whether $\begin{bmatrix} \frac{1}{\sqrt{2}} & -\frac{1}{\sqrt{2}} \\ \frac{1}{\sqrt{2}} & \frac{1}{\sqrt{2}} \end{bmatrix}$ is orthogonal or not?

- Q3)** $A = \begin{bmatrix} 11 & 12 & -3 \\ 5 & 6 & -8 \\ 3 & 8 & 1 \end{bmatrix}$ [10]
 Compute the inverse of the matrix using adjoint method.
- Q4)** Solve the recurrence relation $T(n) = 2T(n-1) + T(n-2)$, with initial conditions $T(0) = 0$, $T(1) = 1$ [10]
- Q5)** Define combination. Prove i) $\binom{n}{r} = \binom{n}{n-r}$ ii) $\binom{n+1}{r} = \binom{n}{r-1} + \binom{n}{r}$ [10]
- Q6) A.** Define an Eulerian graph. State and prove the necessary and sufficient conditions for a graph to be Eulerian. [5]
B. Define a complete graph. How it is represented for n vertices? Draw a complete graph with 5 vertices and calculate the total number of edges. [5]
- Q7)** Let $A = \{1, 2, 3, 4, 5\}$ and $B = \{2, 4, 6, 8, 10\}$ find i) $A \cap B$ ii) $A \cup B$ iii) $A - B$ iv) $B - A$ v) $A \times B$ vi) $B \times A$ vii) Is there any mapping between A and B . [10]
- Q8)** Attempt any 4 questions out of 6 [20]
 A) Define the inverse of a matrix. What is the condition for a matrix to have an inverse?
 B) How many ways can 3 cards be selected from a deck of 52 cards?
 C) Consider the following directed graph (digraph) with vertices: A, B, C, D, E having edges $\{(A \rightarrow B), (B \rightarrow C), (C \rightarrow D), (D \rightarrow E), (E \rightarrow A), (A \rightarrow D), (C \rightarrow B)\}$. Draw the directed graph (digraph). List all the in-degrees and out-degrees for each vertex.
 D) Differentiate between an upper triangular matrix and a lower triangular matrix with examples.
 E) Define a subgraph. Give an example and explain how a subgraph is formed.
 F) A password consists of 4 letters and 3 digits. How many different atmost 7-letter passwords can be formed if repetition is allowed?

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0)

(109807) Mathematics Foundations to Computer Part 1 SEM 1 Science-I





QP-3261

Total No. of Pages : 3

Seat No. Sem-I

OCT_NOV_2024 WINTER EXAMINATION

12329 Bachelor of Computer Application(BCA) NEP 2.0

Sub. Name: Problem Solving Techniques Sem I

Sub. Code: 109809

Day and Date: FEBRUARY ,18-02-2025

Total Marks: 60

Time: 10:30 AM To 12:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: Que.1 and Que. 7 are compulsory.

Attempt any THREE questions from Q.No.2 to Q.No. 6.

Q1) Solve following MCQ.

[10]

- i. When an algorithm is written in the form of a programming language, it becomes a _____.
 - A. Flowchart
 - B. Program
 - C. Pseudo code
 - D. Syntax
- ii. A system wherein items are added from one and removed from the other end.
 - A. Stack
 - B. Queue
 - C. Linked List
 - D. Array
- iii. In which type of control structure no statement is skipped and no one is repeated?
 - A. Sequence
 - B. Selection
 - C. Repetition
 - D. All
- iv. Assembly language is a ____ level programming language.
 - A. High
 - B. Low
 - C. Machine
 - D. None of these
- v. ASCII stands for _____.
 - A. American Stable Code for International Interchange
 - B. American Standard Case for Institutional Interchange
 - C. American Standard Code for Information Interchange
 - D. American Standard Code for Interchange Information

- vi. The 1's complement of binary number 0101 is ____.
- 1001
 - 0111
 - 1011
 - 1010
- vii. In the statement ++variable; ++ is used as ____.
- post-increment operator
 - pre-decrement operator
 - pre-increment operator
 - post-decrement operator
- viii. The 'break' statement cannot be simply used within ____.
- do-while
 - if-else
 - for
 - while
- ix. What is the purpose of return statement in a function?
- To declare the function's return type
 - To exit the program
 - To return a value from the function
 - To define a function
- x. What is the highest index for an array with 10 elements in C?
- 5
 - 9
 - 10
 - 11

- Q2) Explain problem solving steps with suitable example. [10]
- Q3) Identify different kinds of repetitions in the problem. [10]
- Q4) Discuss different generations of programming language. [10]
- Q5) Explain the process of binary search with suitable example. [10]
- Q6) How to translate algorithm in C program? Illustrate with suitable example. [10]
- Q7) Write short notes (Any Four) [20]
- Role of Data Structures in Problem Solving [5]
 - Operator Precedence and Associativity [5]



QP-3261

- | | | |
|----|-------------------------------|-----|
| c. | Flowchart | [5] |
| d. | Characteristics of Algorithms | [5] |
| e. | Switch Case statement | [5] |
| f. | Recursion | [5] |

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109809) Problem Solving Techniques Part 1 SEM 1



Seat No.

BCA-I sem-I

MAR_APR 2025 SUMMER EXAMINATION
12329 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Problem Solving Techniques
Sub. Code: 109809

Day and Date: JUNE ,11-06-2025

Total Marks: 60

Time: 02:30 PM To 05:30 PM

Instructions: 1. Figures to the right indicate full marks**Special Inst.:** 1. Que. no. 1 and Que. no. 7 are compulsory.

2. Attempt any Three questions from Que. no. 2 to Que. no. 6

Q1) Solve following MCQ.**[10]****i.** What will be the output of the following C program?

```
#include <stdio.h>
int main() {
printf("Hello, World!");
return 0;
}
```

- A. Hello, World!
- B. 0
- C. Syntax Error
- D. None of above

ii. Which of the following is not a keyword in C?

- A. int
- B. char
- C. float
- D. function

iii. What will be the output of the following C code?

```
int main() {
char c = 'A';
printf("%d", c);
return 0;
}
```

- A. 65
- B. A
- C. Syntax Error
- D. None of above

iv. All keywords in C are in _____

- A. Lower Case letters
- B. Upper Case letters

- C. Camel Case letters
D. None of above
- v. scanf() is a predefined function in _____ header file.
A. stdlib. h
B. ctype. h
C. stdio. h
D. stdarg.h
- vi. Who is the father of C language?
A. Steve Jobs
B. Dennis Ritchie
C. James Gosling
D. None of above
- vii. What is an example of conditional statements in C?
A. if
B. if-else
C. Switch case
D. All of above
- viii. Which of the following array is used in C programming?
A. One dimensional
B. Two dimensional
C. Multi dimensional
D. All of above
- ix. What is #include <stdio.h>?
A. Preprocessor directive
B. Inclusion directive
C. File inclusion directive
D. None of the above
- x. Which is valid C expression?
A. int ab=23,444;
B. int a b=2344;
C. int ab=2344
D. int ab=2344;
- Q2) What is problem? Explain types of computational problems in detail. [10]
- Q3) Discuss different problem solving steps in detail. [10]
- Q4) Write a C program to display following pattern [10]
1
1 1

1 1 1
1 1 1 1

- Q5)** Explain in detail assignment, arithmetic, relational and logical operators used in c. [10]
- Q6)** Discuss top-down and bottom-up approaches of problem solving. [10]
- Q7)** Write short note (Any Four) [20]
- a. Algorithm and its characteristics [5]
 - b. While loop [5]
 - c. Break and continue statement [5]
 - d. Flowchart [5]
 - e. History of C language [5]
 - f. Types of array [5]

End Of Question Paper

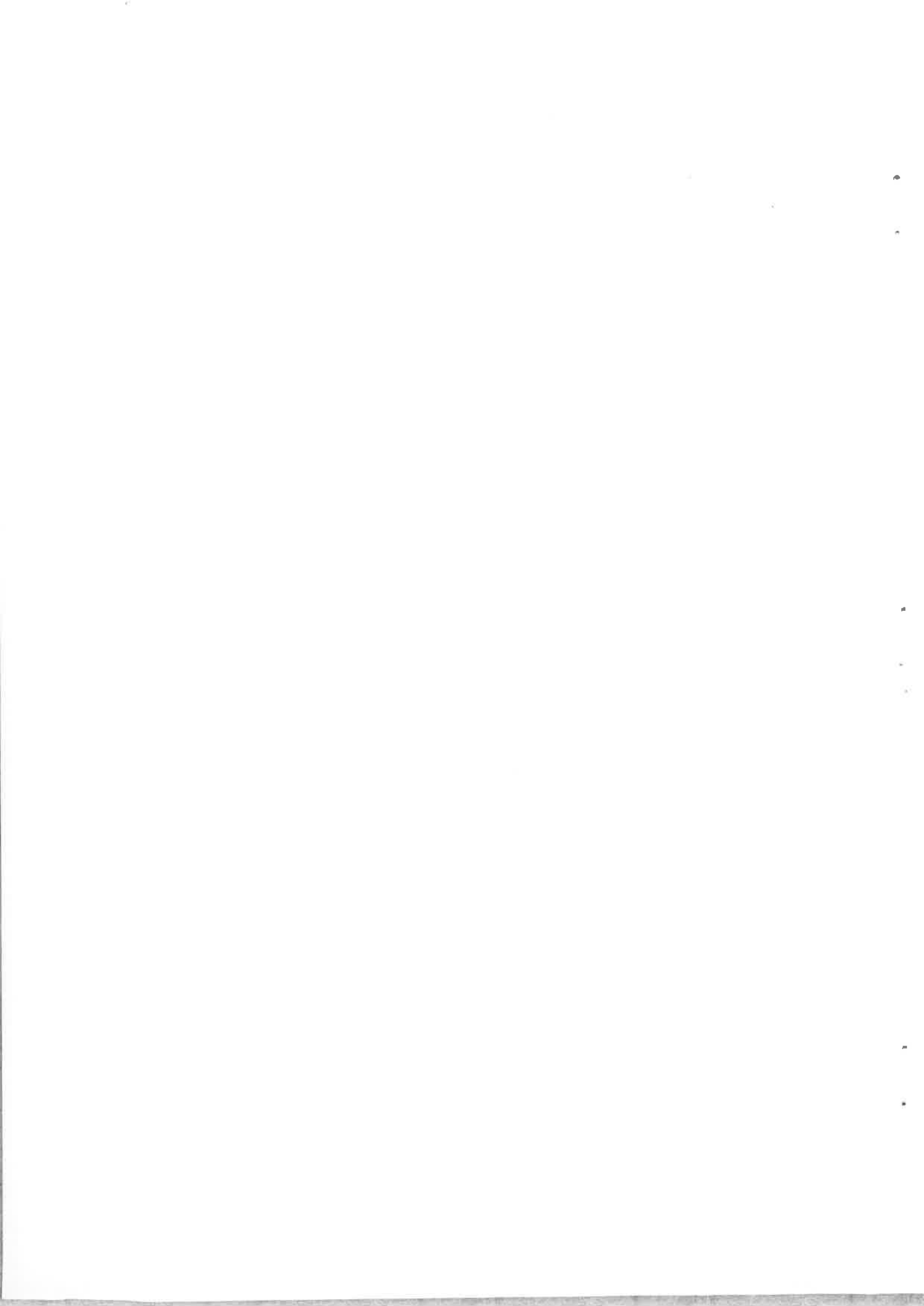
Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109809) Problem Solving Techniques Part 1 SEM 1



Seat No. Sem-I**OCT_NOV_2024 WINTER EXAMINATION****12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: General English-I Sem-I****Sub. Code: 109810****Day and Date: FEBRUARY ,20-02-2025****Time: 10:30 AM To 12:00 PM****Instructions:**

- Special Inst.:** 1) Que.1 and Que. 6 are compulsory.
 2) Attempt any TWO questions from Que. No.2 to Que. No. 5.
 3) Figures to the right indicate full marks

**Total Marks: 40****Q1) Solve following MCQ.****[10]**

- i. She is sitting ____ the chair.
 A. in
 B. on
 C. at
 D. by
- ii. Students of this class _____ not serious in their studies.
 A. is
 B. was
 C. were
 D. are
- iii. I saw ____ elephant at the zoo.
 A. a
 B. an
 C. the
 D. none of the above
- iv. Juhi is _____ than Manali
 A. tall
 B. taller
 C. tallest
 D. more tall
- v. Which of the following pairs is the best example of noun to verb conversion?
 A. friend – friendly
 B. communication – communicate
 C. work – worker
 D. growth – grow



- vi. Choose the compound word
- Rainy
 - running
 - raincoat
 - Rain
- vii. The synonym for "**Ancient**" is _____
- New
 - Modern
 - Young
 - Old
- viii. The antonym of '**Artificial**' is _____
- Tailored
 - Ordinary
 - Natural
 - Possible
- ix. Which of the following is the correct suffix for "care"?
- able
 - ful
 - ness
 - ment
- x. Which of the following sentences is grammatically correct?
- She don't like tea.
 - She doesn't likes tea
 - She doesn't like tea
 - She don't likes tea

Q2) Discuss nature and style of sensible writing. [10]

Q3) Write an essay on Social Media and Cyber Security [10]

Q4) Discuss the role of non-verbal communication in interviews. How do body language, facial expressions, and tone of voice contribute to the success of an interview? [10]

Q5) Your Boss asks you to prepare a presentation on New Car Launch of your company. Write a dialogue between you and your Boss about the presentation. Imagine necessary details. [10]

Q6) (Any Two out of Four) [10]

- Importance of Vocabulary in effective writing
- Importance of proper punctuation

- c. Organizing principles of paragraph writing
- d. The role of non-verbal communication in workplace interactions.



End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (12329) Bachelor Of Computer Application (NEP2.0) (109810) General English-I Part 1 SEM 1



MAR_APR 2025 SUMMER EXAMINATION
12329 Bachelor of Computer Application(BCA sci) NEP 2.0
Sub. Name: General English-I
Sub. Code: 109810

Day and Date: JUNE ,12-06-2025

Total Marks: 40

Time: 02.30 PM To 04:00 PM

Instructions:

- Special Inst.:** 1) Que.1 and Que. 6 are compulsory.
 2) Attempt any TWO questions from Que. No.2 to Que. No. 5.
 3) Figures to the right indicate marks.

Q1) Solve following MCQ.

[10]

- i. _____ is the most important aspect of active listening.
- A. Giving full attention and responding appropriately
 B. Thinking about what to say next
 C. Multitasking while listening
 D. Focusing only on body language
- ii. A précis must be written in _____.
- A. Direct speech
 B. Indirect speech
 C. Both direct and indirect speech
 D. Poetic style
- iii. Which of the following is the best non verbal element in an interview?
- A. Slouching
 B. Sitting up straight and maintaining eye contact
 C. Crossing arms and looking away
 D. Looking at your phone
- iv. Choose the correct sentence.
- A. The sceneries of Kashmir is beautiful.
 B. The scenery of Kashmir is beautiful.
 C. The scenery of Kashmir are beautiful.
 D. The sceneries of Kashmir are beautiful.
- v. Which of the following is the antonym of "expand"?
- A. Enlarge

- B. Shrink
C. Stretch
D. Extend
- vi. Which of these words means the same as "praise"?
- A. Admire
B. Criticize
C. Ignore
D. Complain
- vii. _____ is the main characteristic of a coined word.
- A. It is a completely new word with no prior origin
B. It is borrowed from another language
C. It is formed by merging two words
D. It is a shortened form of a longer word
- viii. Which of the following is an example of blending?
- A. Breakfast + Lunch → **Brunch**
B. Teach + Learn → **Teachlearn**
C. Mobile + Phone → **Mobilephone**
D. Water + Bottle → **Waterbottle**
- ix. Which word is an example of **verb-to-adjective** conversion?
- A. Sleep → sleepy
B. Play → playful
C. Hope → hopeful
D. All of the above
- x. The company changed ____ policies to attract more employees.
- A. their
B. its
C. it
D. his
- Q2) How should paragraphs be organized to ensure clarity and flow in a document? [10]
- Q3) Write an Essay on "The Role of Technology in Education" [10]
- Q4) A friend of yours is considering leaving the college to become a social media influencer. Write a dialogue conversation where you discuss the risks and rewards with your friend. [10]
- Q5) Explain the importance of listening along with the guidelines for effective listening. [10]

Q6) Write short note (Any Two out of Four)

[10]

- a. Techniques to create coherence in writing
- b. Characteristics of Precis writing
- c. Phrases and Clauses
- d. Communication at Workplace

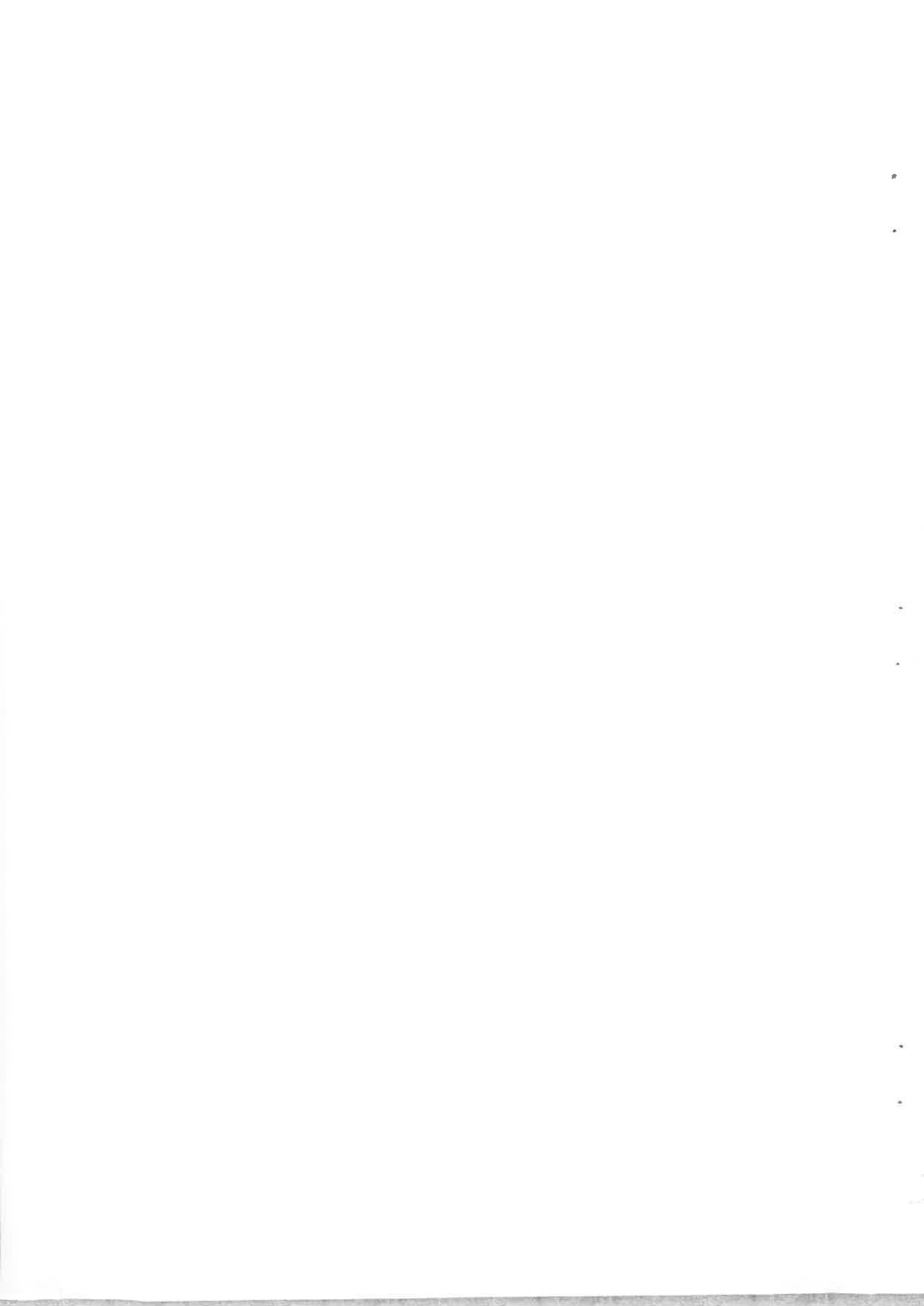
End Of Question Paper

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सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109810) General English-I Part 1 SEM 1



Seat No. Sem I**OCT_NOV_2024 WINTER EXAMINATION****12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Hindi Paper-I****Sub. Code: 109845**

Day and Date: FEBRUARY ,21-02-2025

Time: 10:30 AM To 12:00 PM



Total Marks: 40

Instructions:

- Special Inst.:** 1) Question 1 and Question 6 are Compulsory
 2) Attempt any TWO Question from Question No.2 to Question No.5.
 3) Figures to the right indicate Marks

Q1) नीचे दिए गए विकल्पों में से सही विकल्प चुनकर वाक्य फिर से लिखिए।**[10]**

- i. विज्ञापन का शाब्दिक अर्थ-----है।
 A. सार्वजनिक सूचना
 B. ध्यानाकर्षण
 C. निवेदन करना
 D. उपर्युक्त सभी
- ii. उत्पादित वस्तुओं की जानकारी ग्राहकों तक पहुंचाने का काम-----करता है।
 A. विज्ञापन
 B. समाचार
 C. आलेख
 D. अनुवाद
- iii. विज्ञापन का मूल उद्देश----- है
 A. जानकारी देना
 B. समझाना
 C. याद दिलाना
 D. उपर्युक्त सभी
- iv. विज्ञापन की भाषा सरल, संक्षिप्त और-----होनी चाहिए।
 A. क्लिष्ट
 B. बोधगम्य
 C. द्विअर्थी
 D. पारिभाषिक
- v. विज्ञापन का सबसे तेजी से बढ़ने वाला माध्यम-----है।
 A. टेलिविजन
 B. रेडियो
 C. इंटरनेट
 D. समाचार पत्र



- vi. बचपन में कवि ने धरती में----- बोए थे ।
 A. पैसे
 B. खिलौने
 C. बीज
 D. बंदूक
- vii. जब गति ही जीवन है तो मृत्यु----- है ।
 A. संदिग्धता
 B. वीरता
 C. स्थिरता
 D. कठोरता
- viii. 'यहाँ थी वह नदी' कविता के कवि-----है ।
 A. उदय प्रकाश
 B. दुष्यंतकुमार
 C. मंगलेश डबराल
 D. सुमित्रानंदन पंत
- ix. सुमित्रानंदन पंत जी----- धारा के कवि हैं ।
 A. प्रयोगवादी
 B. छायावादी
 C. हालावादी
 D. नयी कविता
- x. 'पहचान' कविता के कवि-----हैं ।
 A. डॉ. देवेन्द्र दीपक
 B. धूमिल
 C. मंगलेश डबराल
 D. आरसी प्रसाद सिंह

- Q2) विज्ञापन के उद्देश लिखिए । [10]
- Q3) विज्ञापन के क्षेत्र में रोजगार के अवसरों को स्पष्ट कीजिए । [10]
- Q4) 'आ: धरती कितना देती है' कविता का आशय स्पष्ट कीजिए । [10]
- Q5) 'जीवन का झरना' कविता का उद्देश लिखिए । [10]
- Q6) टिप्पणियाँ लिखिए । (चार में से दो) [10]
- a. विज्ञापन का महत्त्व ।
- b. विज्ञापन के अंग ।
- c. 'पहचान' कविता का आशय ।
- d. मंगलेश डबराल का जीवन परिचय ।

End Of Question Paper



Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109845) Hindi Paper-I Part 1 SEM 1

351876



Seat No. _____

BCA-I Sem-I

MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Hindi Paper-I****Sub. Code: 109845****Day and Date: JUNE ,13-06-2025****Total Marks: 40****Time: 02.30 PM To 04:00 PM****Instructions:**

- Special Inst.:** 1) Que. 1 and Que. 6 are Compulsory.
2) Attempt any TWO Questions from Que. 2 to Que. 5
3) Figure to the right indicate marks.

- Q1) नीचे दिए गए विकल्पों में से सही विकल्प चुनकर वाक्य फिर से लिखिए। [10]**
- 1) विज्ञापन का सबसे तेजी से बढ़ने वाला माध्यम ----- है।
अ) टेलीविजन ब) रेडिओ क) इंटरनेट ड) समाचार
- 2) निम्नलिखित में से विज्ञापन के माध्यम ----- हैं।
अ) दृश्य ब) श्रव्य क) दृश्य- श्रव्य ड) यह सभी
- 3) विज्ञापन की आत्मा ----- है।
अ) व्यापार ब) पुस्तक क) कंप्यूटर ड) इनमें से कोई नहीं
- 4) विज्ञापन की भाषा सरल, संक्षिप्त और ----- होनी चाहिए।
अ) क्लिष्ट ब) बोधगम्य क) द्वि-अर्थी ड) पारिभाषिक
- 5) वस्तु की उपयोगिता तथा उसके गुणों की जानकारी देने का कार्य----- करता है।
अ) विज्ञापन ब) अनुवाद क) विधा ड) किताब
- 6) कवि पंत जी को ----- कहा जाता है।
अ) राष्ट्रवादी ब) प्रगतिशील क) प्रकृति के सुकुमार कवि ड) हालावादी
- 7) निर्झर और यौवन दोनों में मुख्य समानता----- है।
अ) तरलता ब) पहाड़ से निकलना क) आगे बढ़ना ड) किसी वस्तु को बहाना
- 8) ----- नीम के जैसा नहीं हो सकता।
अ) वफादार ब) चापलूस क) दोस्त ड) इतिहास पुरुष
- 9) 'पहचान' कविता-----काव्य संग्रह में संकलित है।
अ) सूरज बनती किरण ब) बंद कमरा: खुली कविताएँ क) मास्टर ड) धरमदास
- 10) मंगलेश डबराल का जन्म ----- गाँव में हुआ है।
अ) सारंगपानी ब) काफलपानी क) गढ़वाल ड) इलाहाबाद
- Q2) विज्ञापन के अंगों पर चर्चा करते हुए उसके महत्त्व को स्पष्ट कीजिए। [10]**
- Q3) विज्ञापन के क्षेत्र में रोजगार के अवसरों पर प्रकाश डालिए। [10]**
- Q4) 'जीवन का झरना' कविता में कवि झरने के माध्यम से समूचे मानव-जाति को कौन-सी सीख देना चाहते हैं? स्पष्ट कीजिए। [10]**
- Q5) 'यहाँ थी वह नदी' कविता का आशय स्पष्ट कीजिए। [10]**
- Q6) टिप्पणियाँ लिखिए। (4 में से 2) [10]**

- 1) विज्ञापन की परिभाषा स्पष्ट कीजिए।
- 2) विज्ञापन के उद्देश्य को स्पष्ट कीजिए।
- 3) पंत जी द्वारा कविता में अभिव्यक्त प्रकृति की अनुत्ती सुंदरता का चित्रण अपने शब्दों में लिखिए।
- 4) 'पहचान' कविता के माध्यम से कवि कौन-सा संदेश देना चाहते हैं ?

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (12329) Bachelor Of Computer Application (NEP2.0) (109845) Hindi Paper-I Part 1 SEM 1

Seat No.

OCT_NOV_2024 WINTER EXAMINATION
12329 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Indian Vision for Human Society
Sub. Code: 109812 BCA -I sem -I



Day and Date: FEBRUARY ,22-02-2025

Total Marks: 30

Time: 10:30 AM To 12:00 PM

- Instructions:** 1. All questions are compulsory
 2. Figures to the right indicate full marks

- Q1)** Explain the Human as coexistence of Jad and chetan [10]
 OR
 Explain the true nature of self
- Q2)** Write Short answer question/Exercise/Problem (Any TWO) [10]
- a. Explain the Concept Salvation [5]
 b. Explain the concept Moksha : Human Liberation [5]
 c. Explain the four states of Consciousness [5]
 d. Explain the Patanjali yog sutra [5]
- Q3)** Write short note (Any Two) [10]
- a. Eternal peace truth [5]
 b. Kautliya's Arthashastra [5]
 c. Human Bondage [5]
 d. Awareness [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109812) Indian Vision for Human
Society

Part 1 SEM 1



Seat No.

BCA-I sem-I

MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCAsci) NEP 2.0****Sub. Name: Indian Vision for Human Society****Sub. Code: 109812****Day and Date: JUNE ,14-06-2025****Total Marks: 30****Time: 02.30 PM To 04:00 PM****Instructions: 1. All questions are compulsory
2. Figures to the right indicate full marks**

- Q1)** What is the pathway to achieving freedom from sorrow? **[10]**
OR
Explain the aim of Human life at the individual level
- Q2)** Write Short answer question (Any two out of four) **[10]**
- a.** Explain the different stages of Life **[5]**
- b.** Explain the concept Nitya Karma **[5]**
- c.** Explain the Four states of Consciousness **[5]**
- d.** Explain the differentiating Vidya and Avidya **[5]**
- Q3)** Write short note Any two out of four **[10]**
- a.** Ultimate truth **[5]**
- b.** Four Purusarthas **[5]**
- c.** Nitishastra **[5]**
- d.** The true nature of self **[5]**

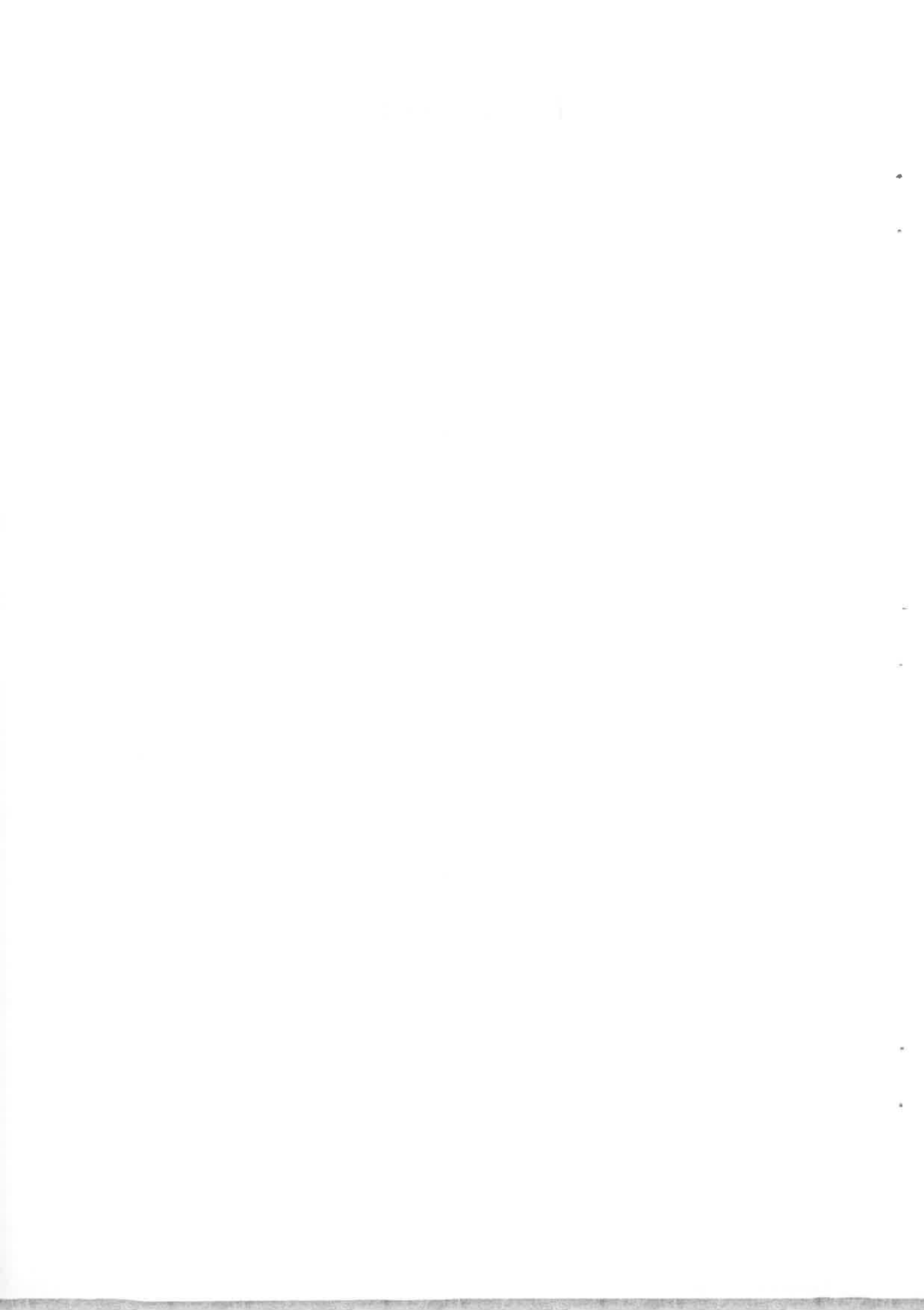
End Of Question Paper**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)(109812) Indian Vision for Human
Society

Part 1 SEM 1



QP-3301

Total No. of Pages : 2



Seat No. _____

OCT_NOV_2024 WINTER EXAMINATION
12329 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Environmental Science and Sustainability
Sub. Code: 109813 BCA I Sem-I

Day and Date: FEBRUARY ,24-02-2025

Total Marks: 30

Time: 10:30 AM To 12:00 PM

- Instructions: 1. All questions are compulsory
2. Figures to the right indicate full marks

Q1) Write descriptive answer (Any ONE)

[10]

- a. What is mean by ecosystem? Explain the structure and function of ecosystem.
परिसंस्था म्हणजे काय ? परिसंस्थेची रचना आणि कार्य स्पष्ट करा.
- b. What are natural resources? Give the types of natural resources and discuss forest as a natural resource.
नैसर्गिक संसाधने म्हणजे काय ? नैसर्गिक साधनसंपत्तीचे प्रकार द्या आणि जंगल ही नैसर्गिक संसाधने म्हणून चर्चा करा.

Q2) Write short answer (Any TWO)

[10]

- a. Give sources, effects and control of water pollution.
जल प्रदूषणाचे स्रोत, परिणाम आणि नियंत्रण द्या
- b. What is mean by Sustainable development?
शाश्वत विकास म्हणजे काय ?
- c. What is mean by Global warming? give reasons and control measure.
जागतिक तापमान वाढ म्हणजे काय ? कारणे आणि उपाय योजना सांगा
- d. Give sources and effects of solid waste.
घनकचऱ्यांचे स्रोत आणि परिणाम सांगा

Q3) Write short note (Any TWO)

[10]

- a. Flood as natural disaster
महापूर एक नैसर्गिक आपत्ती
- b. Acid Rain
आम्ल प्रजन्य
- c. Food chain



अन्नसाखळी

d.

Air Pollution

हवा प्रदूषण



QP-3301

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109813) Environmental Science and
Sustainability

Part 1 SEM 1

Seat No.

BCA-I sem-I

MAR-APR 2025 SUMMER EXAMINATION**11949 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Environmental Science and Sustainability****Sub. Code: 109813****Day and Date: JUNE ,16-06-2025****Total Marks: 30****Time: 02.30 PM To 04:00 PM**

Instructions: 1. All questions are compulsory
2. Figures to the right indicate full marks

- Q1)** What is mean by pollution? Explain water pollution- causes, effects and control [10]
measures?
प्रदूषण म्हणजे काय ? जलप्रदूषणाची कारणे, परिणाम आणि उपाययोजना सांगा
(OR)
What is mean by ecosystem? Explain structure and functions of ecosystem?
परिसंस्था म्हणजे काय ? परिसंस्थेची रचना आणि कार्ये स्पष्ट करा ?
- Q2)** Write Short Answer (Any Two out of Four) [10]
थोडक्यात उत्तरे द्या. (कोणतेही दोन)
- a.** Give reasons for deforestation? [5]
जंगलतोडीची कारणे सांगा ?
- b.** Explain pond ecosystem? [5]
तळी परिसंस्था स्पष्ट करा.
- c.** Explain impact of mining activity on environment? [5]
खानकाम व्यवसायाचा पर्यावरणावर होणारा परिणाम स्पष्ट करा ?
- d.** Give the reasons for environmental degradation? [5]
पर्यावरण न्हांची कारणे सांगा.
- Q3)** Write short note (Any Two out of Four) टिपा लिहा (कोणताही दोन) [10]
- a.** Soil erosion [5]
जमिनीची धूप
- b.** Food chain [5]
अन्नसाखळी
- c.** Ozone layer depletion [5]
ओझोन थराच्या न्हांची कारणे

- d. Rain water harvesting
पावसाच्या पाण्याचे पुनर्भरण

[5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application
(NEP2.0)

(109813) Environmental Science and
Sustainability

Part 1 SEM 1



QP-2916

Total No. of Pages : 3

Seat No.

OCT_NOV_2024 WINTER EXAMINATION

7824 Bachelor of Computer Application (CBCS)NEP

Sub. Name: Fundamentals of Computer *BcA-I sem I*

Sub. Code: 80861/88341

Day and Date: JANUARY ,08-01-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM

Instructions:

Special Inst.: 1.Que.1 and Que. 8 are compulsory and attempt any three Questions from Que. No.2 to Que. No. 7.
2) Figures to the right indicate marks.

Q1) Solve following MCQ.

[12]

- i. Explain the difference between RAM and ROM
 - A. RAM is permanent storage, while ROM is temporary storage
 - B. RAM is volatile memory, while ROM is non-volatile memory
 - C. RAM stores data permanently, while ROM stores data temporarily
 - D. RAM is faster than ROM
- ii. How does a computer's CPU process instructions?
 - A. By storing data permanently
 - B. By controlling the flow of data between hardware components
 - C. By executing instructions stored in memory
 - D. By displaying graphics on the screen
- iii. Magnetic disks are the most popular medium for
 - A. Direct access
 - B. Sequential access
 - C. Both of above
 - D. None of above
- iv. Computer is free from tiresome and boredom. We call it
 - A. Accuracy
 - B. Reliability
 - C. Diligence
 - D. Versatility
- v. Which command is used to display the current working directory in Linux?
 - A. Pwd
 - B. Cd
 - C. Ls
 - D. Dir

- vi. Integrated Circuits (Ics) are related to which generation of computers?
- A. First generation
 - B. Second generation
 - C. Third generation
 - D. Fourth generation
- vii. The term gigabyte refers to
- A. 1024 bytes
 - B. 1024 kilobytes
 - C. 1024 megabytes
 - D. 1024 gigabyte
- viii. Which of the following is not a kind of system software?
- A. BIOS software
 - B. Unix, Linux
 - C. Microsoft Windows, and Mac OS
 - D. Microsoft Word
- ix. What is the full form of GUI?
- A. Graphical Universal Interface
 - B. Graphical User Interface
 - C. General Utility Interface
 - D. General Universal Interface
- x. Which is the core of the linux operating system?
- A. Shell
 - B. Kernel
 - C. Command
 - D. Script
- xi. Command used to count number of character in a file is
- A. grep
 - B. wc
 - C. count
 - D. cut
- xii. The two kinds of main memory are:
- A. Primary and secondary
 - B. Random and sequential
 - C. ROM and RAM
 - D. All of above

Q2) Draw a block diagram of a computer. Explain the function of each of the block. [16]

Q3) Discuss various types of primary memory and secondary memory. [16]

Q4) Explain different types and functions of operating system in detail.

Q5) [16]

a. What is computer? Explain its characteristics in detail.

b. Convert the following Number [8]
System

1) $(85)_{10} = (?)_2$

2) $(954)_{10} = (?)_{16}$

3) $(624)_{10} = (?)_8$

4) $(1100110)_2 = (?)_{10}$



Q6)

a. Define the software. List and explain the types of software.
Give two example of each category. [8]

b. What do you mean by computer languages?
Explain functions of compiler and interpreter. [8]

Q7) What is Linux file system? Explain structure of Linux file system in detail. [16]

Q8) Write short notes on(Any Four) [20]

a. Features of windows

b. Difference between RAM and ROM

c. VI Editor

d. impact and non-impact printer

e. inodes in Linux

f. Binary number system

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7810) B.C.A. (CBCS) (80861) Fundamentals of Computer Part 1 SEM 1

2] (7824) Bachelor of Computer Application (CBCS)NEP (88341) Fundamentals of Computer Part 1 SEM 1





B.C.A. – Ist Year

SEM – II

Previous Year

Question Papers

Academic Year

(2024-25)

Please Note: This set has been prepared based on the papers received to us from the Examination Cell. It may have missing papers on non-availability of the same.



Seat No.

BCA-I sem-II

MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Operating System****Sub. Code: 109900**

Day and Date: JUNE ,11-06-2025

Total Marks: 40

Time: 10:30 AM To 12:00 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: 1. Que.1 and Que.6 are compulsory.

2. Attempt any TWO questions from Que.No.2 to Que.No.5.

Q1) Solve following MCQ.

[10]

- i. Which of the following is used in mutual exclusion?
 - A. Signals
 - B. Buffers
 - C. Semaphores
 - D. Page Tables
- ii. Demand paging is based on:
 - A. Loading all pages at once
 - B. Keeping pages locked in memory
 - C. Loading pages only when required
 - D. Swapping pages periodically
- iii. The **First-Come, First-Served (FCFS)** scheduling algorithm is:
 - A. Preemptive
 - B. Non-preemptive
 - C. Round-based
 - D. Random
- iv. The primary goal of an operating system is to:
 - A. Provide user interface
 - B. Execute user applications
 - C. Manage system resources efficiently
 - D. Run in the background
- v. A process control block (PCB) does not contain:
 - A. Process state
 - B. Program counter
 - C. Register contents
 - D. Source code
- vi. Which of the following is NOT a scheduling criterion?

- A. CPU utilization
- B. Throughput
- C. Latency
- D. File size

vii. Which of the following is true about segmentation?

- A. Eliminates external fragmentation
- B. Uses fixed-size blocks
- C. Divides memory logically
- D. Uses a single contiguous memory area

viii. What is the purpose of system calls in an Operating System?

- A. Compiling programs
- B. Allowing user-level processes to request services from the OS
- C. Creating GUI
- D. Formatting storage

ix. Banker's algorithm is used for:

- A. CPU scheduling
- B. File handling
- C. Deadlock avoidance
- D. Interrupt handling

x. MFT and MVT are related to:

- A. CPU scheduling
- B. Memory allocation
- C. File system
- D. Deadlocks

Q2) What is Operating System? Explain any two types of Operating Systems. **[10]**

Q3) Describe the life cycle of a process in an operating system with suitable diagram. **[10]**

Q4) Describe the concept of virtual memory. How is it implemented using paging and segmentation? **[10]**

Q5) Explain the Banker's Algorithm for deadlock avoidance in detail. **[10]**

Q6) Write notes on (Any TWO out of FOUR) **[10]**

- a. Process Control Block
- b. System Calls
- c. Deadlock Detection and Recovery
- d. Swapping

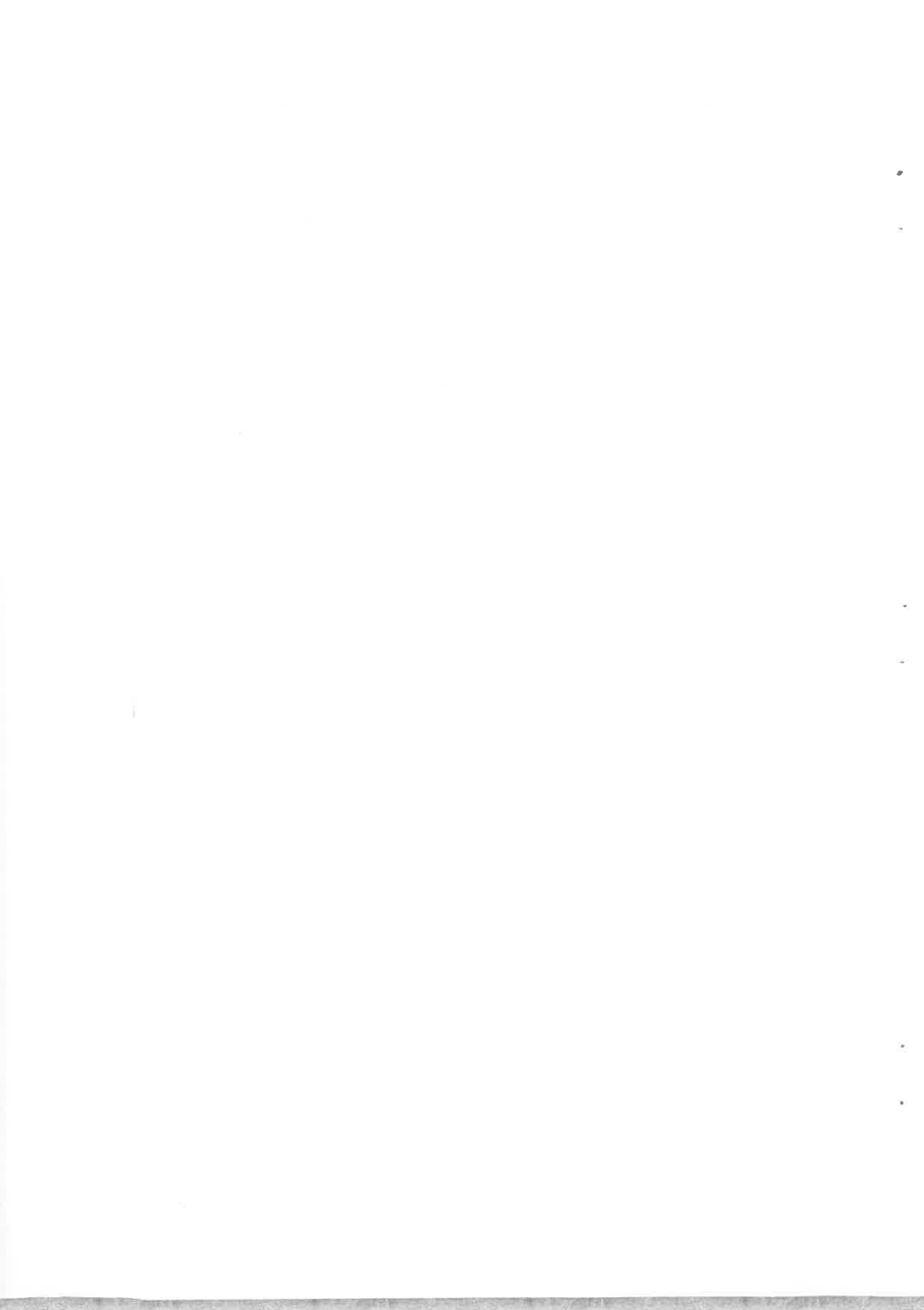
End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109900) Operating System Part 1 SEM 2



Seat No.

QP-5695

Total No. of Pages : 3

REP



MAR_APR 2025 SUMMER EXAMINATION

11949 Bachelor of Computer Application(BCA) NEP 2.0

Sub. Name: Operating System **BCA-I sem II**

Sub. Code: 80869/88350

Day and Date: MAY ,10-05-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM

Instructions:

- Special Inst.: 1) Que.1 and Que. 8 are compulsory and attempt any three Questions from Que. No.2 to Que. No. 7.
2) Figures to the right indicate marks.



Q1) Solve following MCQ.

[12]

- i. Which of the following is not a type of operating system?
 - A. Batch Operating System
 - B. Real Time Operating System
 - C. Distributed Operating System
 - D. Sequential Operating System

- ii. A process is -----
 - A. An instance of program execution
 - B. A set of instructions stored on an disk
 - C. The same as a thread
 - D. Type of computer virus

- iii. Which part of the operating system is responsible for managing memory?
 - A. File system
 - B. Kernel
 - C. User interface
 - D. Device drivers

- iv. A memory buffer used to accommodate a speed differential is called _____
 - A. stack pointer
 - B. cache
 - C. accumulator
 - D. disk buffer

- v. An Operating system maintains the page table for _____
 - A. each process
 - B. each thread
 - C. each instruction

D. each address

vi. What is the purpose of a file manager in an operating system?

- A. Playing multimedia files
- B. Managing files and folders
- C. Installing software
- D. Managing system hardware



vii. Which of the following is a commonly used file organization technique that stores files in a single linear list?

- A. Hierarchical organization
- B. Sequential organization
- C. Random organization
- D. Encrypted organization

viii. Light weight process is called _____

- A. thread
- B. tiny process
- C. small process
- D. stack

ix. Which one of the following explains sequential file access method?

- A. random access according to the given byte number
- B. read/write randomly by record
- C. read bytes one at a time in order
- D. read/write sequentially by record

x. Suppose that a process is in "Blocked" state waiting for some I/O service. When the service is completed, it goes

- A. Running state
- B. Ready state
- C. Suspended state
- D. Terminated state

xi. -----refers to the logical structuring of records,

- A. File organization
- B. structural organization
- C. Physical organization
- D. Logical organization

xii. Virtual memory is----

- A. Large secondary memory
- B. Large Main memory
- C. Illusion of large main memory
- D. None of the above

- Q2) What is operating System? Explain Multiprogramming and Time sharing Operating System. [16]
- Q3) What is segmentation? Explain it in detail. [16]
- Q4) What is Paging? Explain in detail. [16]
- Q5) Explain different operations performed on File [16]
- Q6) A. Differentiate between windows and Linux operating system [8]
B. Explain the methods to access a file in the operating system [8]
- Q7) A. Explain message passing in inter process communication. [8]
B. Explain the services offered by operating system [8]
- Q8) Write short notes on (any four) [20]
- Process states
 - Virtual Memory
 - Demand Paging
 - Monolithic structure of operating system
 - Different Types of Files
 - External and Internal Fragmentation



End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (7824) Bachelor of Computer Application (CBCS)NEP (88350) Operating System Part 1 SEM 2
- 2] (7810) B.C.A. (CBCS) (80869) Operating System Part 1 SEM 2





- 4) A Memory buffer used to accommodate a speed differential is called-----
 - A) Stack pointer
 - B) Cache
 - C) accumulator
 - D) disk huffer

- 5) A file with extension is the binary executable file.
 - A) .txt
 - B) .docx
 - C) .sh
 - D) .exe

- 6) When was the first operating system developed?
 - A) 1948
 - B) 1949
 - C) 1950
 - D) 1991

- 7) A File control block contains the information about
 - A) File ownership
 - B) File Permissions
 - C) Size of the file contents
 - D) All of These

- 8) A process can be terminated due to.....
 - A) Normal cxit
 - B) Fatal error
 - C) Killed by another process
 - D) All of These



- 9) Run time mapping from virtual to physical address is done by.....
- A) Memory Management Unit
 - B) CPU
 - C) PCI
 - D) None of these
- 10) When Memory is divided into several fixed sized partitions, each partition may contain.....
- A) Exactly one process
 - B) At least one process
 - C) Multiple processes
 - D) None of these
- 11) Which electronic components are used in First Generation Operating System?
- A) Vacuum Tube and Plugboards
 - B) Transistors and Batch Systems
 - C) Integrated Circuits and Multiprogramming
 - D) Personal Computers
- 12) A Program in execution is called
- A) A Process
 - B) A Paging
 - C) A virtual Memory
 - D) A Demand Page



- Q.2** What is Operating System? Explain Layered & Exokernel Structure of Operating System. [16]
- Q.3** What is Process? Explain Process Model & Process hierarchy [16]
- Q.4** A) Explain Any Four type of Operating System. [08]
B) Explain State of Process. [08]
- Q.5** What is Memory? Explain Requirement of Memory Management. [16]
- Q.6** What is File? Explain File Directories& File access. [16]
- Q.7** A) Explain Paging. [08]
B) Explain File Operations. [08]
- Q.8 Short Note on (Attempt any four) [20]**
- a) Function of Operating System.
 - b) Process Creation
 - c) Virtual Memory.
 - d) Structure of file.
 - e) Structure of Micro kernel.
 - f) Segmentation

◆◆◆



MAR-APR 2025 SUMMER EXAMINATION

11949 Bachelor of Computer Application (BCA) NEP 2.0

Sub. Name: DBMS

Sub. Code: 80868/88349



Day and Date: MAY, 09-05-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM

Instructions: 1. Figures to the right indicate full marks



Special Inst.: 1) Que.1 and Que. 8 are compulsory

2) Attempt any three Questions from Que. No.2 to Que. No. 7.

Q1) Choose the correct answer to each of the following questions.

[12]

- i. In the architecture of a database system external level is the _____.
 - A. Physical level
 - B. Logical level
 - C. Conceptual level
 - D. View level
- ii. _____ is an information repository which contains metadata.
 - A. Data warehouse
 - B. Data dictionary
 - C. Database
 - D. System
- iii. In Access, _____ are used to store the data.
 - A. Report
 - B. Form
 - C. Table
 - D. Query
- iv. Which of the following is not a valid aggregate function?
 - A. COUNT
 - B. COMPUTE
 - C. SUM
 - D. MAX
- v. Organizing your files according to their blocks and putting those blocks onto a storage medium is referred to as _____.
 - A. Data organization
 - B. File organization
 - C. Recursive organization
 - D. None

- 
- 
- vi. What is a Centralized Database?
- A. These databases store information in a central location.
 - B. These databases store information in a decentral location.
 - C. These databases store information in a left location.
 - D. These databases store information in the right location.
- vii. How many types of file organizations are there?
- A. 5
 - B. 6
 - C. 7
 - D. 8
- viii. Which SQL clause is used to filter the results of a query to a specific condition?
- A. ORDER BY
 - B. GROUP BY
 - C. WHERE
 - D. HAVING
- ix. Heap File Organization work with _____.
- A. Data Sets
 - B. Database
 - C. Data Blocks
 - D. Data item
- x. Which command is used to change the definition of a table in SQL?
- A. CREATE
 - B. UPDATE
 - C. ALTER
 - D. SELECT
- xi. How many primary keys can be on a table?
- A. Only 1
 - B. Only 2
 - C. Depends on no of Columns
 - D. Depends on DBA
- xii. To create queries in Access _____.
- A. You can drag and drop fields on query builders
 - B. You can type the SQL command in SQL view
 - C. You can use query wizard or design view
 - D. All of the above

Q2) Explain serial file organization with its type. [16]

Q3) Describe the Hierarchical Model and Network Model with diagrams. [16]

- Q4)** Write the advantages and disadvantages of DBMS. [16]
- Q5)** What is DBMS? Explain needs and features of DBMS in detail. [16]
- Q6)** What are aggregate functions? Explain any four aggregate functions with examples. [16]
- Q7)** Explain DML commands with appropriate examples. [16]
- Q8)** Write notes on (Any Four). [20]
- a. Entity Relationship Model
 - b. Functions of DBMS
 - c. Keys in DBMS
 - d. Distributed database system
 - e. SQL data types
 - f. Users of databases

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7810) B.C.A. (CBCS) (80868) DBMS Part 1 SEM 2

2] (7824) Bachelor of Computer Application (CBCS)NEP (88349) DBMS Part 1 SEM 2





Seat No. **OCT_NOV_2024 WINTER EXAMINATION****11949 Bachelor of Computer Application(BCA) NEP 2.0**Sub. Name: DBMS *BCA-I sem-II*Sub. Code: 80868/88349

Day and Date: DECEMBER ,10-12-2024

Total Marks: 80

Time: 10:30 AM To 01:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: 1) Que.1 and Que. 8 are compulsory
2) Attempt any three Questions from Que. No.2 to Que. No. 7.

Q1) Solve following MCQ.

[12]

- i. The architecture of the database can be viewed as----- .
- Two levels
 - Three levels
 - Four levels
 - One level
- ii. Which level of abstraction describes How data are actually stored?
- Physical
 - Logical
 - External
 - View
- iii. What is the maximum length a text field can be?
- 75
 - 120
 - 255
 - 265
- iv. To create queries in Access----- .
- You can drag and drop fields on query builders
 - You can type the SQL command in SQL view
 - You can use query wizard or design view
 - All of the above
- v. What is the full form of SQL?
- Structured Query List
 - Structured Query Language
 - Sample Query Language
 - None of these.
- vi. How many primary keys can be on a table?



- A. Only 1
- B. Only 2
- C. Depends on no of Columns
- D. Depends on DBA

vii. Heap File Organization work with -----.

- A. Data Sets
- B. Database
- C. Data Blocks
- D. Data item

viii. Which one is the only used to display data?

- A. report
- B. query
- C. form
- D. none of these

ix. A part of a database that stores complete information about an entity such as employees, sales, orders, etc.

- A. Record
- B. File
- C. Field
- D. Query

x. The process of hiding irrelevant details from the user is called ----- .

- A. Data abstraction
- B. Mapping
- C. Data clapping
- D. Data binding

xi. ----- is an information repository which contains metadata.

- A. Data warehouse
- B. Data dictionary
- C. Database
- D. System

xii. DBMS stands for ----- .

- A. Database Administrator System
- B. Database Management System
- C. Database Basic Management System
- D. Data Basic Management System

Q2) A. Explain the Hierarchical model with an appropriate diagram. [8]

B. Explain the network mode with an appropriate diagram. [8]

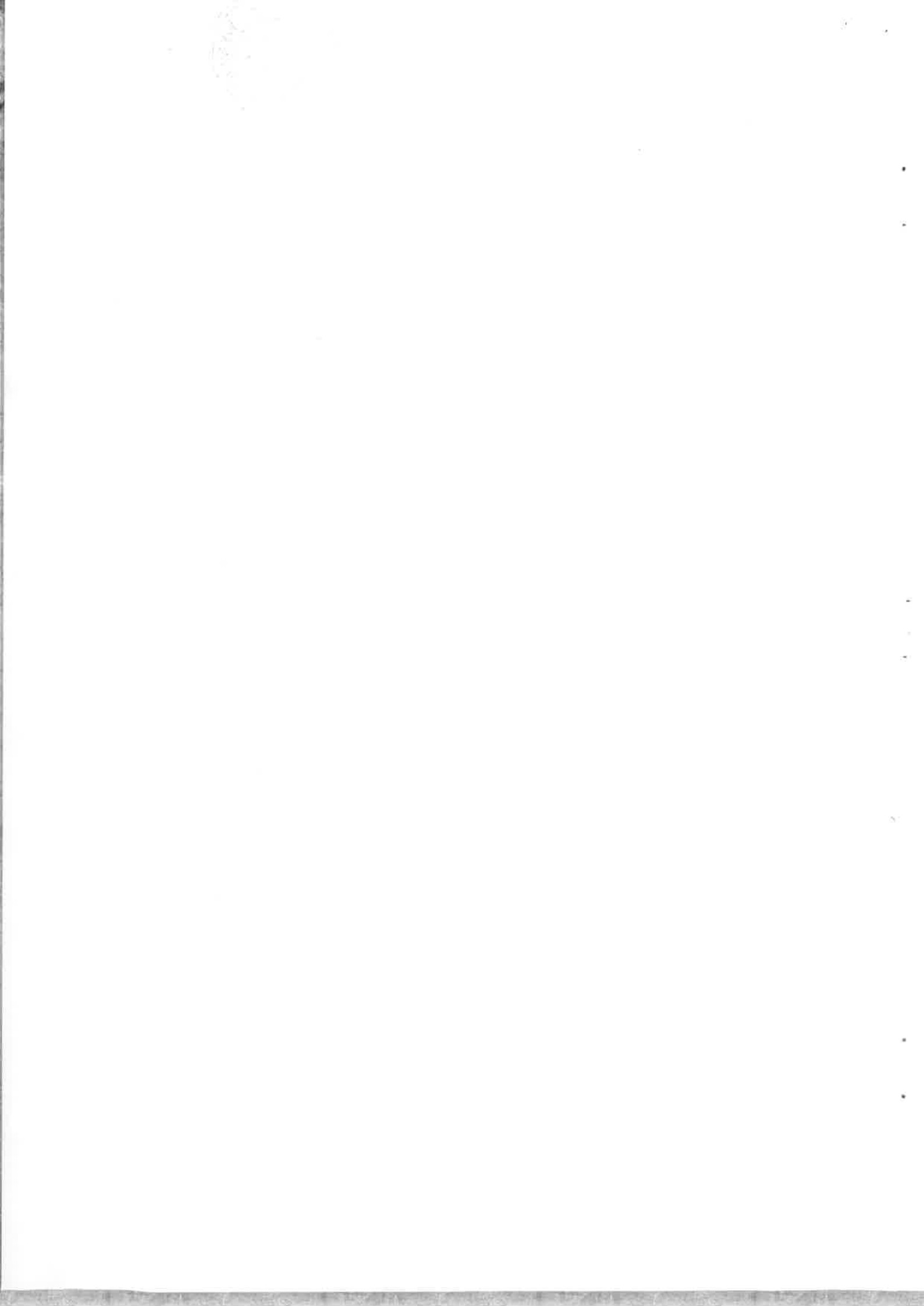
Q3) Explain DML commands with examples. [16]



QP-2148

- Q4)** What is a database? Describe different users of the database in detail. [16]
- Q5)** Illustrate aggregate functions used in DBMS. [16]
- Q6)** What is normalization? Explain the First NF, Second NF, and Third NF with [16] appropriate examples.
- Q7) A.** What is DBMS? Explain the needs of DBMS in detail. [8]
B. Explain the features of DBMS in detail. [8]
- Q8)** Write notes on (Any Four). [20]
- a. DDL commands
 - b. Primary key and foreign key
 - c. Order by clause
 - d. Serial file organization
 - e. DQL commands
 - f. SQL data types

* * *



Seat No.

BCA-I sem-II

MAR-APR 2025 SUMMER EXAMINATION
11949 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Web Technology I
Sub. Code: 88351



Day and Date: MAY ,13-05-2025

Total Marks: 80

Time: 02:30 PM To 05:30 PM


Instructions: 1. Figures to the right indicate full marks

Special Inst.: 1) Que 1 and Que 8 are compulsory
 2) Solve any three questions from Que 2 to Que 7

Q1) Multiple Choice questions (1 mark each)

[12]

- i. What is the effect of the `` tag?
- It converts the text within it to a bold tag
 - It is used to write black-colored font
 - It is used to change the font size.
 - None of these
- ii. Which of the following tags doesn't require a closing tag?
- `
`
 - `<hr>`
 - Both (a) and (b)
 - None of these
- iii. How many sizes of headers are available in HTML by default?
- 5
 - 1
 - 3
 - 6
- iv. FTP stands for
- Frame Transfer Protocol
 - File Transfer Protocol
 - Form Transfer Protocol
 - None of these
- v. Which HTML tag is used to create an ordered list in a webpage?
- ``
 - ``
 - ``
 - `` and ``
- vi. What application can one create even before the introduction of HTML5?

- 
- A. Forms
 - B. Browser based games
 - C. Web applications
 - D. Mobile applications

vii. When is the body tag used?

- A. after FORM tag
- B. after Title tag
- C. after EM tag
- D. after HEAD tag

viii. Which of the following is not a web component element?

- A. <shadow>
- B. <menu>
- C. <content>
- D. <element>

ix. Which of the following is not associated with web socket communication?

- A. https
- B. wss
- C. http
- D. ws

x. Identify the tag used to give paragraph

- A. <p>
- B.

- C. <marquee>
- D. <pre>

xi. What is the function of the HTML style attribute?

- A. It is used to add styles to an HTML element.
- B. It is used to uniquely identify some specific styles of some elements
- C. Both (a) and (b)
- D. None of these

xii. What is the purpose of JavaScript in web development?

- A. To define the structure and content of web pages
- B. To add interactivity and behavior to web pages
- C. To style and format web pages
- D. To manage server-side data and databases

Q2) Discuss Web Development life cycle in detail. **[16]**

Q3) Write a HTML code to design a Web Page of your College. **[16]**

Q4) Explain different control structures in JAVA Script. **[16]**



Q5) [16]

- a. Discuss Event Handling in Java Script. [8]
- b. What is CSS? Explain different types of CSS. [8]

Q6) [16]

- a. What is HTML5? Explain difference between HTML and HTML5. [8]
- b. Explain Document Object Model in detail [8]

Q7) What is meant by WWW? Explain different types of Web sites. [16]

Q8) Write short notes on following (Any four) [20]

- a. Internet Protocol [5]
- b. Web Hosting [5]
- c. CSS Properties [5]
- d. HTML Frameset [5]
- e. Dialog Boxes [5]
- f. Web Servers [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7824) Bachelor of Computer Application (CBCS)NEP (88351) Web Technology I Part 1 SEM 2



Seat No.

OCT_NOV_2024 WINTER EXAMINATION
11949 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Web Technology I
Sub. Code: 88351 BCA-I Sem-II



Day and Date: DECEMBER ,12-12-2024

Total Marks: 80

Time: 10:30 AM To 01:30 PM

Instructions: 1. Figures to the right indicate full marks**Special Inst.: i) Que 1 and Que 8 are compulsory**
ii) Solve any three from Que 2 to Que 7**Q1) Solve following MCQ.****[12]**

- i. Which HTML tag is used to create an ordered list in a webpage?
A.
B.
C.
D. and
- ii. What application can one create even before the introduction of HTML5?
A. Forms
B. Browser Based Games
C. Web Applications
D. Mobile Applications
- iii. FTP stands for
A. Frame Transfer Protocol
B. File Transfer Protocol
C. Form Transfer Protocol
D. None of These
- iv. When is the body tag used?
A. after FORM tag
B. after Title tag
C. after EM tag
D. after HEAD tag
- v. Which of the following is not a web component element?
A. <shadow>
B. <menu>
C. <content>
D. <element>
- vi. Which of the following is not associated with web socket communication?



- A. https
- B. wss
- C. http
- D. ws

vii. What is the purpose of JavaScript in web development?

- A. To define the structure and content of web pages
- B. To add interactivity and behavior to web pages
- C. To style and format web pages
- D. To manage server-side data and databases

viii. Identify the tag used to give paragraph..

- A. <p>
- B.

- C. <marquee>
- D. <pre>

ix. What is the function of the HTML style attribute?

- A. It is used to add styles to an HTML element.
- B. It is used to uniquely identify some specific styles of some elements.
- C. Both (a) and (b)
- D. None of These

x. What is the effect of the tag?

- A. It converts the text within it to a bold tag.
- B. It is used to write black-colored font
- C. It is used to change the font size.
- D. None of these

xi. Which of the following tags doesn't require a closing tag?

- A.

- B. <hr>
- C. Both (a) and (b)
- D. None of These

xii. How many sizes of headers are available in HTML by default?

- A. 5
- B. 1
- C. 3
- D. 6

Q2) What meant by WWW? Explain different types of Web sites in detail.

[16]

Q3) [16]

a. What is Internet? Discuss working of website.

[8]



QP-2337

- b.** Discuss advantages and limitations of CSS. [8]
- Q4)** Explain different control structures in JAVA Script. [16]
- Q5) [16]**
- a.** Discuss Event Handling in Java Script. [8]
- b.** Explain the form validation process in JavaScript with example. [8]
- Q6) [16]**
- a.** What is HTML5? Explain difference between HTML and HTML5 [8]
- b.** Give difference between Client Side and Server Side Scripting. [8]
- Q7)** Write a HTML Code to design a Web Page of your home town. [16]
- Q8)** Write short note (Any Four) [20]
- a.** Web Hosting [5]
- b.** Dialog Boxes [5]
- c.** Web Browsers [5]
- d.** HTML Frameset [5]
- e.** Functions in JAVA Script [5]
- f.** CSS Properties [5]

*** * ***



Seat No.

BCA-I Sem-II

MAR-APR 2025 SUMMER EXAMINATION**11949 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Financial Accounting with Tally****Sub. Code: 80871/88352****Day and Date: MAY ,14-05-2025****Total Marks: 80****Time: 02:30 PM To 05:30 PM****Instructions: 1. Figures to the right indicate full marks****Special Inst.: Q.1 and Q.8 are compulsory****Attempt any three questions from Q.2 to Q.7.****Q1) Solve following MCQ.****[12]**

- i. Mr.Kiran Account is a _____ type of account
- Real
 - Nominal
 - Personal
 - Capital
- ii. The shortcut key to quit from Tally is
- Ctrl+L
 - Ctrl+P
 - Ctrl+ M
 - Ctrl+Q
- iii. _____ has been called as language of business
- Communication
 - Letter
 - Accounting
 - Finance
- iv. _____ involves the preparation of financial statements (P &L A/C and Balance Sheet)
- Recording
 - Classifying
 - Summarizing
 - Interpreting
- v. Business is considered as a separate and distinct from owner is _____ concept
- Separate Entity
 - Going concern
 - Money measurement
 - Materiality



_____ = Liabilities + Capital

- A. Fixed Asset
B. Share capital
C. Total Asset
D. Valuation
- vii. Salary Account comes under which head?
A. Indirect income
B. Indirect expense
C. Direct income
D. Direct expense
- viii. 'Capital' means.....
A. Owner investing funds into the business
B. Owner withdrawing funds from the business
C. Raising funds from financial institutions
D. Commencing the business
- ix. Every business transaction has _____ effects as per dual aspect concept
A. Two
B. Single
C. Three
D. Multiple
- x. Debit credit rule for personal account is....
A. Debit the receiver and credit the giver
B. Debit the giver and credit the receiver
C. Debit what comes in and credit what goes out
D. Debit what goes out and credit what comes in
- xi. Which option is used to view Stock Items or Group Summary in Tally
A. Account book
B. Inventory books
C. Statutory books
D. Display
- xii. Short cut key to select company in tally is.....
A. F1
B. F2
C. F3
D. F4

Q2) Explain the Internal & External Users of accounting [16]

Q3) Explain different types of Accounts & rules of debit & credit as per Double Entry [16]

System.

Q4)

Journalize the following transactions in the books of Kiran for the year 2023

[16]

Jan 1	Kiran started business with cash with Rs. 2,00,000, Building Rs. 10,00,000 and Machinery Rs. 5,00,000
Jan 2	Purchased goods in cash Rs. 50,000.
Jan 4	Goods sold for cash Rs. 80,000 at a 10% cash discount.
Jan 6	Withdraw cash from Bank of India Rs 10,000.
Jan 7	Received commission Rs. 3,500 & Interest Rs. 500.
Jan 8	Paid Rent of Rs. 8,000 & wages Rs. 9,000.
Jan 10	Goods worth Rs. 1,500 distributed as free samples.
Jan 12	Deposited in Bank of Maharashtra Rs. 20,000.
Jan 14	Withdraw goods for personal use Rs. 2,000
Jan 16	Purchased goods from Kapil of Rs. 60,000 at a 10% Trade discount.
Jan 18	Purchased goods from Avadhut of Rs. 30,000 at a 10% Cash discount



Q5) What is Financial Accounting. Explain Accounting Concepts & Conventions in [16] detail.

Q6) Prepare Final Account

[16]

From the following trial balance of Bharat Bhusan, prepare Trading a/c, Profit & loss a/c for the year ended & Balance sheet as on 31st March 2018.

Particular	Amount Debit	Particular	Amount Credit
Land & building	57,000	Bharat capital	2,00,000
Plant & machinery	17,500	Sales less return	94,000
Goodwill	20,000	Reserve for doubtful debts	1500
Bharat drawings	22,600	Creditors	7500
Cash in hand	1,795		
Stock on 1 st April 2017	27,000		
Wages	10,000		
Purchases less return	69,000		
Carriage inward	600		
Travelers' commission	6,000		
Insurance	2,000		
Motor car	3,000		
Carriage outward	1,400		
Salaries	15,000		
Bank charges	105		
Debtors	20,000		
	3,03,000		3,03,000

Adjustments: -

- 1) On 31st March 2018 the stock was valued at Rs. 46,000.
- 2) Insurance premium amounting to Rs. 800 is prepaid
- 3) Outstanding salaries amounted to Rs. 1,000.
- 4) Depreciate plant & machinery @ 10% p.a. & motor car @ 20% p.a.
- 5) Create a reserve for doubtful debts @ 10% on debtors.




QP-5839

Q7) Explain steps in creation of new company in Tally

[16]

Q8) Write short note (any 4)

[20]

- 
- a. Objectives of accounting
 - b. Groups in tally
 - c. Cash Discount
 - d. Vouchers in Tally
 - e. Single and Multiple ledger
 - f. Trial Balance

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (7824) Bachelor of Computer Application
(CBCS)NEP

(88352) Financial Accounting with Tally Part 1 SEM 2

2] (7810) B.C.A. (CBCS) (80871) Financial Accounting with Tally Part 1 SEM 2

Seat No.

OCT_NOV_2024 WINTER EXAMINATION
11949 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Financial Accounting with Tally

Sub. Code: 80871/88352 *BCA - I Sem. II*



Day and Date: DECEMBER ,13-12-2024

Total Marks: 80

Time: 10:30 AM To 01:30 PM

Instructions: 1. Figures to the right indicate full marks

Special Inst.: Q.1 and Q.8 are compulsory and attempt any three Questions from Q. No.2 to Q.No. 7.

Q1) Solve following MCQ.

[12]

- i. Naveen A/C is _____ type of account
- Real
 - Nominal
 - Personal
 - Capital
- ii. The shortcut key to quit from Tally is.....
- Ctrl + L
 - Ctrl + P
 - Ctrl + M
 - Ctrl + Q
- iii. _____ is been called as language of business
- Communication
 - Letters
 - Accounting
 - Finance
- iv. _____ involves the preparation of financial statements (P &L A/C and Balance Sheet)
- Recording
 - Classifying
 - Summarizing
 - Interpreting
- v. Business is considered as a separate and distinct from owner is _____ concept
- Separate Entity
 - Money measurement
 - Going concern
 - Materiality



- vi. _____ = Liabilities + Capital
- Fixed asset
 - share capital
 - Asset
 - Valuation
- vii. Salary Account comes under which head
- Indirect income
 - Indirect Expense
 - Direct income
 - Direct expense
- viii. 'Capital' means.....
- Owner investing funds into the business
 - Owner withdrawing funds from the business
 - Giving name to the business
 - Commencing the business
- ix. Every business transaction has _____ effects as per dual aspect concept
- Two
 - Single
 - Triple
 - Multiple
- x. Debit credit rule for personal account is....
- Debit the receiver and credit the giver
 - Debit the giver and credit the receiver
 - Debit what comes in and credit what goes out
 - Debit what goes out and credit what comes in
- xi. Which option is used to view Stock Items or Group Summary?
- Accounts Books
 - Inventory Books
 - Statutory Books
 - Display
- xii. Short cut key to select company
- F1
 - F2
 - F3
 - F4

Q2) Explain the 28 types of groups in tally. [16]

Q3) Explain different types of Accounts & rules of debit & credit as per Double Entry [16]



System.

Q4) Journalize the following transactions in the books of Kiran for the year 2023

[16]

Jan 1	Kiran started business with cash with Rs.2,00,000, Building Rs. 10,00,000 and Machinery Rs. 5,00,000
Jan 2	Purchased goods in cash Rs. 50,000.
Jan 4	Goods sold for cash Rs. 80,000 at a 10% cash discount.
Jan 6	Withdraw cash from Bank of India Rs 10,000.
Jan 7	Received commission Rs. 3,500 & Interest Rs. 500.
Jan 8	Paid Rent of Rs. 8,000 & wages Rs. 9,000.
Jan 10	Goods worth Rs. 1,500 distributed as free samples.
Jan 12	Deposited in Bank of Maharashtra Rs. 20,000.
Jan 14	Withdraw goods for personal use Rs. 2,000
Jan 16	Purchased goods from Kapil of Rs. 60,000 at a 10% Trade discount.
Jan 18	Purchased goods from Avadhut of Rs. 30,000 at a 10% Cash discount

Q5) What is Financial Accounting. Explain Accounting Concepts & Conventions in detail [16]

Q6) From the following trial balance and adjustments of Bharat Bhushan prepare [16]
Trading a/c, Profit & loss a/c for the year ended & Balance sheet as on 31st March 2018:**Adjustments: -**

1. On 31st March 2018 the stock was valued at Rs. 46,000.
2. Insurance premium amounting to Rs. 800 is prepaid.
3. Outstanding salaries amounted to Rs. 1,000.
4. Depreciate plant & machinery @ 10% p.a. & motor car @ 20% p.a.
5. Create a reserve for doubtful debts @ 10% on debtors.



QP-2348

Particulars	Dr. Rs.	Cr. Rs.
Bharat capital		2,00,000
Land & building	87,000	
Plant & machinery	17,500	
Goodwill	20,000	
Bharat drawings	22,600	
Cash in hand	1,795	
Stock on 1 st April 2017	27,000	
Wages	10,000	
Purchases less return	69,000	
Carriage inward	600	
Travelers' commission	6,000	
Insurance	2,000	
Motor car	3,000	
Carriage outward	1,400	
Sales less return		94,000
Salaries	15,000	
Bank charges	105	
Reserve for doubtful debts		1,500
Debtors	20,000	
Creditors		7,500
TOTAL	3,03,000	3,03,000

Q7) Explain in detail the steps of creation of company in Tally [16]

Q8) Q.8) Write notes on (Any Four out of Six) [20]

1. Objectives of accounting.
2. Internal & External Users of accounting.
3. Cash Discount.
4. Vouchers in tally.
5. Single & Multi Ledger.
6. Trial Balance

Seat
No.

SO-384

Total No. of Pages : 3

B. C. A. (Part-I) (Semester-II) NEP-2020
Examination, 2025
Mathematics Foundations to Computer Science-II
Subject Code: 109898

Day and Date : Monday, 09-06-2025

Total Marks : 80

Time : 10.30 a.m. to 1.30 p.m.

Instructions:

- 1) Que. 1 and Que. 8 are compulsory
- 2) Attempt any FOUR questions from Que. No. 2 to Que. No. 7.
- 3) Figures to the right indicate full marks.
- 4) Use of Scientific calculator is allowed.

Q.1 A. Select the correct alternatives for each of the following:

[10]

i) Newton-Raphson method is also called -----

- a) Method of tangent
- b) Method of chord
- c) Interval halving method
- d) False position method

ii) In LPP when does feasibility change

- a) addition of variable
- b) change in objective functions coefficient
- c) change in right hand side of feasible region
- d) feasibility does not change

iii) The negation of the statement $5 \times 3 = 15$ or $7 + 5 = 12$ is -----

- a) $5 \times 3 = 15$ or $7 + 5 = 12$
- b) $5 \times 3 \neq 15$ and $7 + 5 \neq 12$
- c) $5 \times 3 = 15$ or $7 + 5 \neq 12$
- d) $5 \times 3 \neq 15$ or $7 + 5 \neq 12$

iv) If G is a group and $a \in G$, then the subset $\{x \in G \mid xa = ax\}$ is called ...

- a) Normalizer of $a \in G$
- b) Centre of G
- c) digit coset of $a \in G$
- d) none of these

v) The value of $\Delta y_0 =$ -----

- a) $y_0 - y_1$
- b) $y_1 - y_0$
- c) $y_2 - y_1$
- d) $y_1 - y_2$

vi) How many occupied cells must be a transportation matrix with 8 rows and 7 columns have so that it does not degenerate

- a) 15
- b) 55
- c) 56
- d) 14

- vii) Which of the following is not a proposition?
 a) Is mathematical boring? c) Diamond is harder than graphite
 b) Man landed on the sun last year d) He finished his work and went away
- viii) In a group $G = \{\pm 1, \pm i\}$ the inverse of element i is ...
 a) 1 b) i c) $-i$ d) -1
- ix) What is the negation of the statement "There exists a city where it rains every day"?
 a) "There exists no city where it rains every day"
 b) "There does not exist any city where it rains every day"
 c) "It rains every day in all cities"
 d) "It does not rain every day in all cities"
- x) Which of the following is not a group?
 a) $(Z, -)$ b) $(R, +)$ c) $(N, .)$ d) $(N, +)$

B. Attempt any two of the following:

[10]

- i) Find an initial basic feasible solution to the following Transportation Problem using the stepping stone method.

		Destination				
		D1	D2	D3	D4	Supply
Origin	O1	6	4	1	5	14
	O2	8	9	2	7	16
	O3	4	3	6	2	5
	Demand	6	10	15	4	35

- ii) Determine whether the statement $\sim(p \wedge q) \vee r$ is a tautology, contradiction, or contingency.
- iii) Use the graphical method to solve the following LP problem Maximize $z = 5x + 3y$, subject to the constraints $3x + 5y \leq 15$, $5x + 2y \leq 10$, $x, y \geq 0$.

Q. 2. Using Newton's backward interpolation formula, find y at $x = 6$ from following table [10]

x:	1	3	5	7
y:	24	120	336	720

Q. 3. Translate into symbolic form and test the validity of the following argument: If 6 is even, [10]

then 2 does not divide 7. Either 5 is not prime or 2 divides 7. But 5 is prime. Therefore, 6 is not even.

Q. 4. Find by Newton's method, a root of the equation $x^3 - 5x + 3 = 0$ correct to 3 decimal places. [10]

Q. 5. Show that a) $(p \rightarrow q) \vee (\sim p \wedge \sim q)$ is a tautology. [10]

b) $\sim(p \vee q) \wedge (p \vee q)$ is a contradiction.

Q. 6. Define cyclic group. Show that the group $G = \{1, -1, i, -i\}$ under multiplication operation is a cyclic group. [10]

Q. 7. Determine the initial basic feasible solution of the following transportation problem by Vogel's [10] approximation method.

		Destinations				Supply
		D1	D2	D3	D4	
Origins	O1	1	2	1	4	30
	O2	3	3	2	1	50
	O3	4	2	5	9	20
	Demand	20	40	30	10	

Q. 8. Attempt any four of the following:

[20]

- Let $G = \{\pm 1, \pm i, \pm j, \pm k\}$ be group of quaternions. Find normalizer of each element of G .
- Verify the equivalence using truth table: $p \leftrightarrow q \equiv (p \rightarrow q) \wedge (q \rightarrow p)$.
- Evaluate $\int_0^1 \frac{1}{1+x} dx$ using trapezoidal rule by taking $h=0.2$.
- Obtain an initial basic feasible solution to the following Transportation Problem using the matrix minima method.

		Factories				Supply
		D1	D2	D3	D4	
Warehouse	O1	6	3	5	4	22
	O2	5	9	2	7	15
	O3	5	7	8	6	8
	Demand	7	12	17	9	

- Show that the set $N = \{0, 1, 2, 3, \dots\}$ is not group with respect to the operation of addition of integers.
- Convert the following L. P. P. in standard form
Maximize $z = 3x + 2y$ subject to, $x - y \geq 1$, $x + y \geq 3$, $x, y \geq 0$.

□□□





Seat
No.

March-April 2025 Examination
B.C.A. (Part-I) (Semester II) (CBCS) (NEP-2020)
Mathematical Foundations For Computer Applications
Sub code : 80872/88353

Instructions :

- 1) Question No. 1 and Question No. 8 is compulsory and attempt any three Questions from Question No. 2 to Question No. 7.
- 2) Figures to the right indicate full marks.

Day and Date : Thursday, 15-05-2025

Total Marks : 80

Time : 02:30 pm to 05:30 pm

Q.1 Select the correct alternative and rewrite the statement:

[12]

- 1) If A and B are two sets then the difference $A - B = \dots\dots\dots$.
A) $\{x/x \in A \text{ and } x \notin B\}$ B) $\{x/x \notin A \text{ and } x \in B\}$
C) $\{x/x \notin A \text{ and } x \notin B\}$ D) $\{x/x \in A \text{ and } x \in B\}$
- 2) If p and q are two statements then the compound statement “ p if and only if q ” is called a
 $\dots\dots\dots$.
A) conjunctive statement B) disjunctive statement
C) conditional statement D) biconditional statement
- 3) If $A = \begin{bmatrix} 1 & 2 \\ 3 & -1 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 0 \\ 2 & 1 \end{bmatrix}$ and $C = \begin{bmatrix} 2 & 1 \\ -1 & 1 \end{bmatrix}$, then $AB + AC = \dots\dots\dots$.
A) $\begin{bmatrix} 5 & 5 \\ 8 & 1 \end{bmatrix}$ B) $\begin{bmatrix} -5 & 5 \\ 8 & 1 \end{bmatrix}$ C) $\begin{bmatrix} 5 & 5 \\ 8 & -1 \end{bmatrix}$ D) $\begin{bmatrix} 5 & -5 \\ -8 & 1 \end{bmatrix}$
- 4) The maximum degree of any vertex in a simple graph with n vertices is $\dots\dots\dots$.
A) $n - 1$ B) $n + 1$ C) $2n - 1$ D) n
- 5) If $A = \{x, y\}$, $B = \{a, b\}$ then $A \times B = \dots\dots\dots$.
A) $\{(a, x), (a, y), (b, x), (b, y)\}$ B) $\{(x, a), (y, a), (x, b), (y, b)\}$
C) $\{(a, b), (x, y)\}$ D) $\{(b, a), (y, x)\}$
- 6) If p is a true statement and q is a false statement then statements $p \vee q$ and $\sim p \vee \sim q$ are
 $\dots\dots\dots$.
A) $p \vee q$ is false and $\sim p \vee \sim q$ is true statement B) both false statements
C) both true statements D) none of these



- 7) A diagonal matrix having all of its elements are equal is called as ----- matrix.
A) unit B) null C) scalar D) singular
- 8) A walk in which no repetition of any vertex and edge is called _____.
A) path B) trail C) closed walk D) none of these
- 9) The set which contains no any element is called----- .
A) an universal set B) a subset C) a null set D) none of these
- 10) The converse of "if p then q" is -----.
A) "If q then p" B) "If \neg p then \neg q"
C) "If \neg q then \neg p" D) $\sim p \vee q$
- 11) If $A = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$, then $A^2 =$ -----.
A) $\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{bmatrix}$ B) $\begin{bmatrix} 2 & 2 & 2 \\ 2 & 2 & 2 \\ 2 & 2 & 2 \end{bmatrix}$ C) $\begin{bmatrix} 3 & 3 & 3 \\ 3 & 3 & 3 \\ 3 & 3 & 3 \end{bmatrix}$ D) $\begin{bmatrix} 3 & 2 & 2 \\ 2 & 3 & 2 \\ 2 & 2 & 3 \end{bmatrix}$
- 12) The complete graph with four vertices has k edges where k is -----.
A) 3 B) 4 C) 5 D) 6

Q. 2 (a) Define: (i) Union of two sets, (ii) Complement of a set , (iii) Difference of two sets.

If $U = \{ 1, 2, 3, 4, 5, 6, 7, 8, 9 \}$ is the universal set and suppose that $A = \{ 1, 2, 3, 4, 5 \}$,
 $B = \{ 4, 5, 6, 7 \}$, $C = \{ 5, 6, 7, 8, 9 \}$ and $D = \{ 1, 3, 5, 7, 9 \}$ then find the following subsets
of U:

(i) $A \cup B$, (ii) A^c , (iii) $C - D$, (iv) $(C \cup D)^c$. [8]

(b) Define adjacency matrix and incidence matrix of a graph G. Draw the undirected graph
represented by adjacency matrix

$$A(G) = \begin{matrix} & \begin{matrix} a & b & c \end{matrix} \\ \begin{matrix} a \\ b \\ c \end{matrix} & \begin{bmatrix} 0 & 2 & 0 \\ 2 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix} \end{matrix} \quad [8]$$



Q.3 (a) Define Logical equivalence of statements. Prove that statement forms $(p \vee q) \rightarrow r$ and $(p \rightarrow r) \wedge (q \rightarrow r)$ are logically equivalent. [8]

(b) Define : (i) Row Matrix, (ii) Column Matrix. If $A = \begin{bmatrix} 1 & 3 & 2 \\ 1 & 0 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 1 \\ 6 \\ 2 \end{bmatrix}$ and $C = [2 \ 1]$, then prove that $A(BC) = (AB)C$. [8]

Q.4 (a) Define: (i) Bipartite graph, (ii) Complete bipartite graph, (iii) Undirected complete graph. Draw undirected complete graphs K_4 and K_6 . [8]

(b) Define Determinant of second and third order. Prove that $\begin{vmatrix} x-y & y-z & z-x \\ y-z & z-x & x-y \\ z-x & x-y & y-z \end{vmatrix} = 0$. [8]

Q.5 (a) Define: Converse,, Inverse, and Contrapositive of conditional statement. Write converse , inverse and contrapositive of the statement "If Suresh can swim across the lake, then Suresh can swim to the island. ". [8]

(b) Define Venn diagram. Draw the Venn diagram for the sets (i) $A \cup B$, (ii) $A \cap B$, (iii) A^c . [8]

Q.6 (a) Define Inverse of a square matrix A. If $A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & -1 & 1 \\ 1 & 1 & 2 \end{bmatrix}$ then find inverse of a square

matrix A. [8]

(b) Write the following sets in tabular form :

(i) $A = \{ x : x \text{ is a +ve integer and a perfect square } \}$.

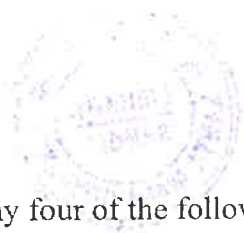
(ii) $B = \{ x : x \text{ is a divisor of } 24 \}$.

(iii) $C = \{ x : x \text{ is a multiple of } 3 \text{ and } 5 \}$.

(iv) $E = \{ x : x \text{ is a letter in the alphabet } \}$. [8]

Q.7 (a) Define Cartesian product of two sets. If $P = \{ 1, 2, 3 \}$ and $Q = \{ 4, 5, 6 \}$ then determine cartesian product $P \times Q$ and $Q \times P$. [8]

(b) Construct the truth table for $p \vee (q \wedge r) \leftrightarrow (p \vee q) \wedge (p \vee r)$. [8]



SO-193

[20]

Q.8 Write note on any four of the following :

- (a) Venn diagram
- (b) Valid and Invalid arguments.
- (c) Relations and Functions.
- (d) Logical Operations.
- (e) Square matrix, Diagonal matrix and Scalar matrix.
- (f) Matrix representation of a graph.

1.8

852791

Seat
No.

Oct.-Nov. 2024 Examination
B.C.A. (Part I) (Semester II) (CBCS) (NEP-2020)
Mathematical Foundations For Computer Applications
Sub Code : 88353

Day and Date : Saturday, 14-12-2024

Total Marks : 80

Time : 10:30 am to 01:30 pm

Instruction :

- 1) Question No. 1 and Question No. 8 is compulsory and attempt any three Questions from Question No. 2 to Question No. 7.
- 2) Figures to the right indicate full marks.

Q.1 Select the correct alternative and rewrite the statement:

[12]

1) ----- is the idempotent law for union of sets A.

- A)
- $A \cup A' = U$
- B)
- $A \cup A' = \phi$
- C)
- $A \cup A = A$
- D)
- $A \cup A = U$

2) The conjunction of two statements p and q is -----.

- A)
- $p \wedge q$
- B)
- $p \vee q$
- C)
- $p \rightarrow q$
- D)
- $p \leftrightarrow q$

3) If $A = \begin{bmatrix} 2 & 1 \\ 3 & 4 \end{bmatrix}$ then $|A| =$ -----.

- A) 2 B) 3 C) 4 D) 5

4) The total degree of a graph with 'm' vertices and 'n' edges is -----.

- A) 2m B) 2n C)
- $\frac{n}{2}$
- D)
- $\frac{m}{2}$

5) If A and B are two sets then $A - B =$ -----.

- A)
- $\{x/x \in A \text{ and } x \notin B\}$
- B)
- $\{x/x \notin A \text{ and } x \in B\}$
-
- C)
- $\{x/x \notin A \text{ and } x \notin B\}$
- D)
- $\{x/x \in A \text{ and } x \in B\}$

6) A statement that is false for all possible values of its propositional variables is called-----.

- A) tautology B) contradiction C) contingency D) none of these

7) If $A = \begin{bmatrix} 4 \\ 0 \\ -1 \end{bmatrix}$ and $B = [1 \ 2 \ -3]$, then $AB =$ -----.

- A)
- $[1 \ 0 \ -3]$
- B)
- $\begin{bmatrix} 4 & 8 & -12 \\ 0 & 0 & 0 \\ -1 & -2 & 3 \end{bmatrix}$
- C)
- $\begin{bmatrix} 4 \\ 0 \\ 6 \end{bmatrix}$
- D)
- $[7]$



Q.4 (a) Define: (i) Bipartite graph, (ii) Complete bipartite graph, (iii) Undirected complete graph.
Draw undirected complete graphs K_4 and K_6 . [8]

(b) Define Determinant of second and third order. Prove that
$$\begin{vmatrix} x-y & y-z & z-x \\ y-z & z-x & x-y \\ z-x & x-y & y-z \end{vmatrix} = 0.$$
 [8]

Q.5 (a) Define: Converse, Inverse, and Contrapositive of conditional statement. Write converse, inverse and contrapositive of the statement "If Suresh can swim across the lake, then Suresh can swim to the island." [8]

(b) Define Venn diagram. Draw the Venn diagram for the sets (i) $A \cap B$, (ii) $A^c \cap B^c \cap C^c$. [8]

Q.6 (a) Define Inverse of a square matrix A. If $A = \begin{bmatrix} 1 & 2 & 3 \\ 0 & -1 & 1 \\ 1 & 1 & 2 \end{bmatrix}$ then find inverse of a square matrix A. [8]

(b) Write the following sets in tabular form :

(i) $A = \{ x : x \text{ is a + ve integer and a perfect square } \}.$

(ii) $B = \{ x : x \text{ is a divisor of 24 } \}.$

(iii) $C = \{ x : x \text{ is a multiple of 3 and 5 } \}.$

(iv) $E = \{ x : x \text{ is a letter in the alphabet } \}.$ [8]

Q.7 (a) Construct the truth table for $p \vee (q \wedge r) \leftrightarrow (p \vee q) \wedge (p \vee r).$ [8]

(b) Define: (i) Union of two graphs, (ii) Intersection of two graphs, (iii) Complement of a graph, (iv) Digraph. [8]

Q.8 Write note on any four of the following : [20]

(a) Venn diagram

(b) Elementary row and column transformations.

(c) Relations and Functions.

(d) Logical Operations.

(e) Square matrix, Diagonal matrix and Scalar matrix.

(f) Adjacency and Incidence matrix representation of Graph.

◆◆◆



Seat No.

BCA-I sem-II

MAR-APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCA) NEP 2.0****Sub. Name: Data Structures****Sub. Code: 109899****Day and Date: JUNE ,10-06-2025****Total Marks: 80****Time: 10:30 AM To 01:30 PM****Instructions:**

- Special Inst.:** 1) Que. 1 and Que. 8 are compulsory.
2) Attempt any FOUR questions from Que. No. 2 to Que. No. 7.
3) Figures to the right indicates marks.

- Q1) A.** Multiple Choice Questions(10 questions for 1 mark each) **[10]**
- i. In a sparse matrix, most of the elements are:**
- A. Non-zero
 - B. Zero
 - C. Negative
 - D. Positive
- ii. Which data structure is used in BFS (Breadth First Search) of a graph?**
- A. Stack
 - B. Queue
 - C. Array
 - D. Tree
- iii. Which data structure uses LIFO (Last In, First Out) principle?**
- A. Queue
 - B. Stack
 - C. Array
 - D. Linked List
- iv. In a circular queue, how do you check if the queue is full?**
- A. $\text{rear} == \text{size} - 1$
 - B. $(\text{rear} + 1) \% \text{size} == \text{front}$
 - C. $\text{front} == \text{rear}$
 - D. $\text{rear} == \text{front} - 1$
- v. Which of the following data structures allows insertions and deletions from both ends?**
- A. Queue
 - B. Stack
 - C. Deque
 - D. Priority Queue

vi. A binary tree with 'n' nodes has how many edges?

- A. n
- B. n - 1
- C. n + 1
- D. 2n

vii What is the result of evaluating the postfix expression 6 3 2 4 + - *?

- A. 74
- B. -18
- C. 22
- D. 40

viii In a singly linked list, what does the last node point to?

- i. A. Itself
- B. The head node
- C. NULL
- D. Random node

ix. What is the primary disadvantage of arrays?

- A. Fixed size
- B. Dynamic resizing
- C. Random access
- D. Efficient memory usage

x. Which of the following is not a type of queue?

- A. Circular Queue
- B. Deque
- C. LIFO Queue
- D. Priority Queue

B. Short answer question(Any two out of three)

[10]

1. Define linked list. Compare linked list with arrays.
2. What is a binary search tree (BST)? Explain insertion and searching in BST.
3. What is recursion? Explain factorial and Fibonacci sequence using recursion.

Q2) What is Queue? Describe Queue operations using array.

[10]

Q3) Write an algorithm to insert a node at the beginning, middle, and end of a singly linked list.

[10]

Q4) Define a graph. Explain adjacency matrix and adjacency list representation with examples.

[10]

- Q5)** Explain the representation of a 2D array in memory. Write a program to add two [10]
matrices.
- Q6)** Write and explain the bubble sort and selection sort algorithms with step-by-step [10]
examples.
- Q7)** What is hashing? Explain the concept of hash tables. Describe different hash [10]
functions and explain any two collision resolution techniques with examples.
- Q8)** Write short note on(Any Four out of Six) [20]
- a.** Matrices and Sparse Matrices [5]
 - b.** Classification of Data Structure [5]
 - c.** Operations of Linked List [5]
 - d.** Collision with Collision Resolution [5]
 - e.** Applications of Queue [5]
 - f.** AVL Trees [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109899) Data Structures Part 1 SEM 2



Seat No.

BCA-I Sem. II

MAR_APR 2025 SUMMER EXAMINATION**12329 Bachelor of Computer Application(BCAsci) NEP 2.0****Sub. Name: Object Oriented Programming Using Java****Sub. Code: 109901**

Day and Date: JUNE ,12-06-2025

Total Marks: 80

Time: 10:30 AM To 01:30 PM

Instructions:

- Special Inst.:** 1) Que.1 and Que. 8 are compulsory.
2) Attempt any FOUR questions from Que. No.2 to Que. No. 7.
3) Figures to the right indicate marks.

Q1) A] Multiple Choice Questions (1 mark each) (10 Marks)**[20]**

- 1] Which of the following is not a feature of Java?
 - a) Object-Oriented
 - b) Platform Dependent
 - c) Secure
 - d) Robust
- 2] Which operator is used for conditional branching?
 - a) &&
 - b) ?:
 - c) ++
 - d) ==
- 3] What is the size of a char in Java?
 - a) 8 bits
 - b) 16 bits
 - c) 32 bits
 - d) 64 bits
- 4] JVM stands for:
 - a) Java Verified Machine
 - b) Java Variable Method
 - c) Java Virtual Machine
 - d) Java Vendor Model
- 5] Which keyword is used to inherit a class in Java?
 - a) implement
 - b) extends
 - c) inherits
 - d) override
- 6] Which of these is used to handle exceptions in Java?
 - a) include
 - b) import
 - c) throw
 - d) define
- 7] Java source code is compiled into:

- a) Assembly code
- b) Bytecode
- c) Machine code
- d) Source code

8] What is the default value of an int variable in Java?

- a) 0
- b) 1
- c) -1
- d) null

9] Which method is automatically called when an object is created?

- a) main()
- b) finalize()
- c) constructor
- d) start()

10] Which class provides wrapper functionality for primitive data types?

- a) Abstract
- b) Integer
- c) Object
- d) Class

B] Give Reasons / Short Answer (Attempt any two) (10 Marks)

- 1] Why is Java called platform-independent?
- 2] What is the use of wrapper classes in Java?
- 3] Differentiate between throw and throws.

- Q2)** Describe inheritance in Java. How is polymorphism achieved through method overriding and interfaces? **[10]**
- Q3)** Explain the basic concepts of Object Oriented Programming. What are the advantages and applications of OOP? **[10]**
- Q4)** What is exception handling in Java? Explain try, catch, throw, throws, and finally with a suitable example. **[10]**
- Q5)** Write a Java program to demonstrate the use of constructors and method overloading. Explain the output. **[10]**
- Q6)** What are packages in Java? How are user-defined packages created and accessed? Illustrate with an example. **[10]**
- Q7)** Explain the different data types in Java. How are variables declared and initialized? **[10]**
- Q8) Write short notes on (Any Four): – [4 x 5 = 20 Marks] **[20]****
- a) Java Tokens
 - b) Command Line Arguments
 - c) Typecasting in Java
 - d) Loops used in Java
 - e) Multithreading in Java
 - f) Enumerated Types

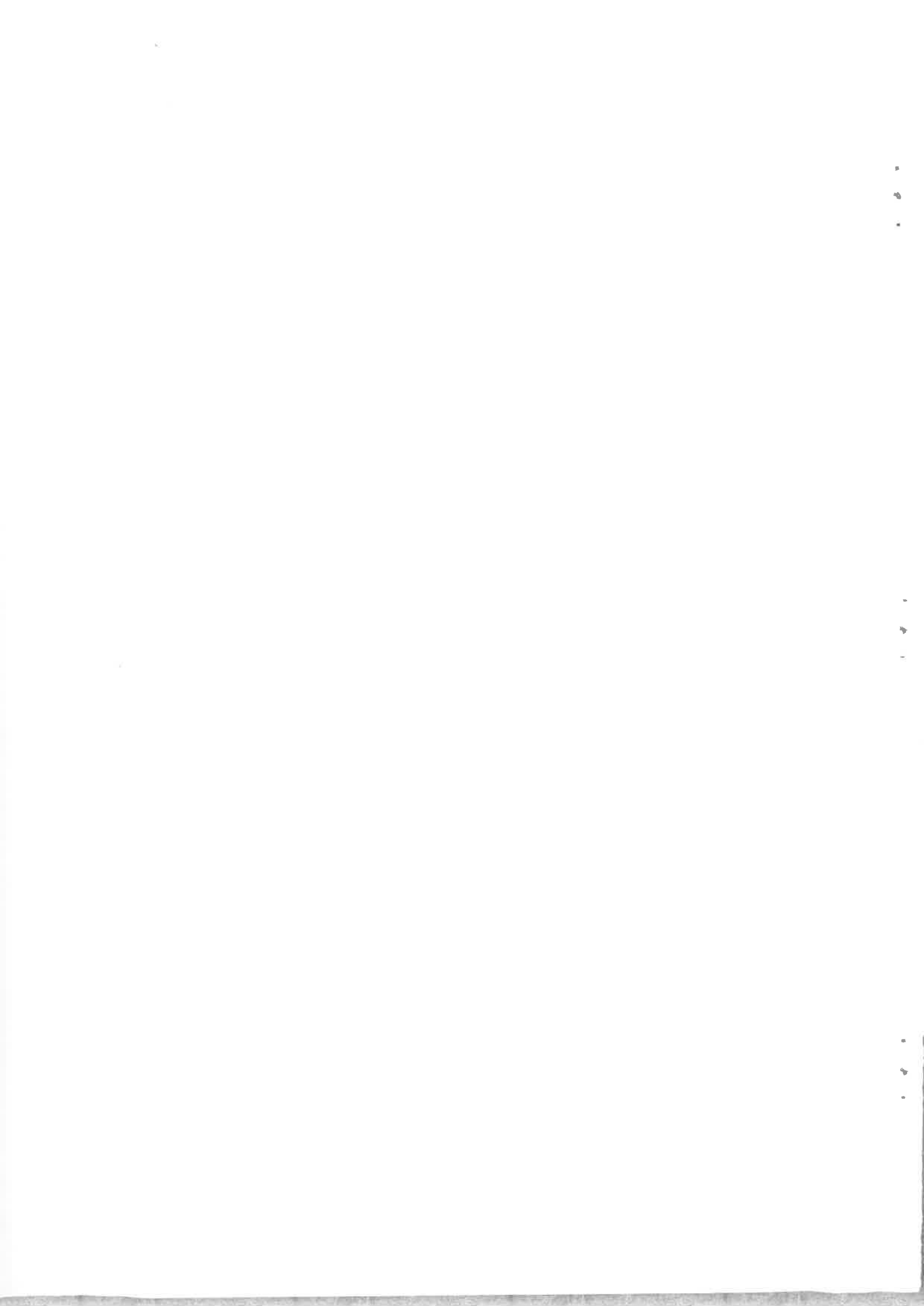
End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109901) Object Oriented Programming Using Java Part 1 SEM 2



MAR-APR 2025 SUMMER EXAMINATION
12329 Bachelor of Computer Application(BCA) NEP 2.0
Sub. Name: Indian Constitution
Sub. Code: 109903

Day and Date: JUNE ,13-06-2025

Total Marks: 30

Time: 10:30 AM To 12:00 PM

Instructions: 1. All questions are compulsory
 2. Figures to the right indicate full marks

- Q1) Q1) Define commerce and intercourse within the territory of India. [10]**
 OR
 Q1) Elaborate historical understanding of the constitution also explains important economic movement in constitutional history.
- Q2) Q2) Write Short Answer (Any Two) [10]**
 A. Explain Grand citizen right
 B. Define challenges with fiscal federalism in India
 C. Demonstrate the complex and fascinating overlap between constitution and business.
 D. Explain legal resolution and economic justice
- Q3) Q3) Write Short Notes (Any Two) [10]**
 A. Economic justice
 B. Article 280 constitution
 C. Rights of citizens
 D. Banning of diesel engine cars

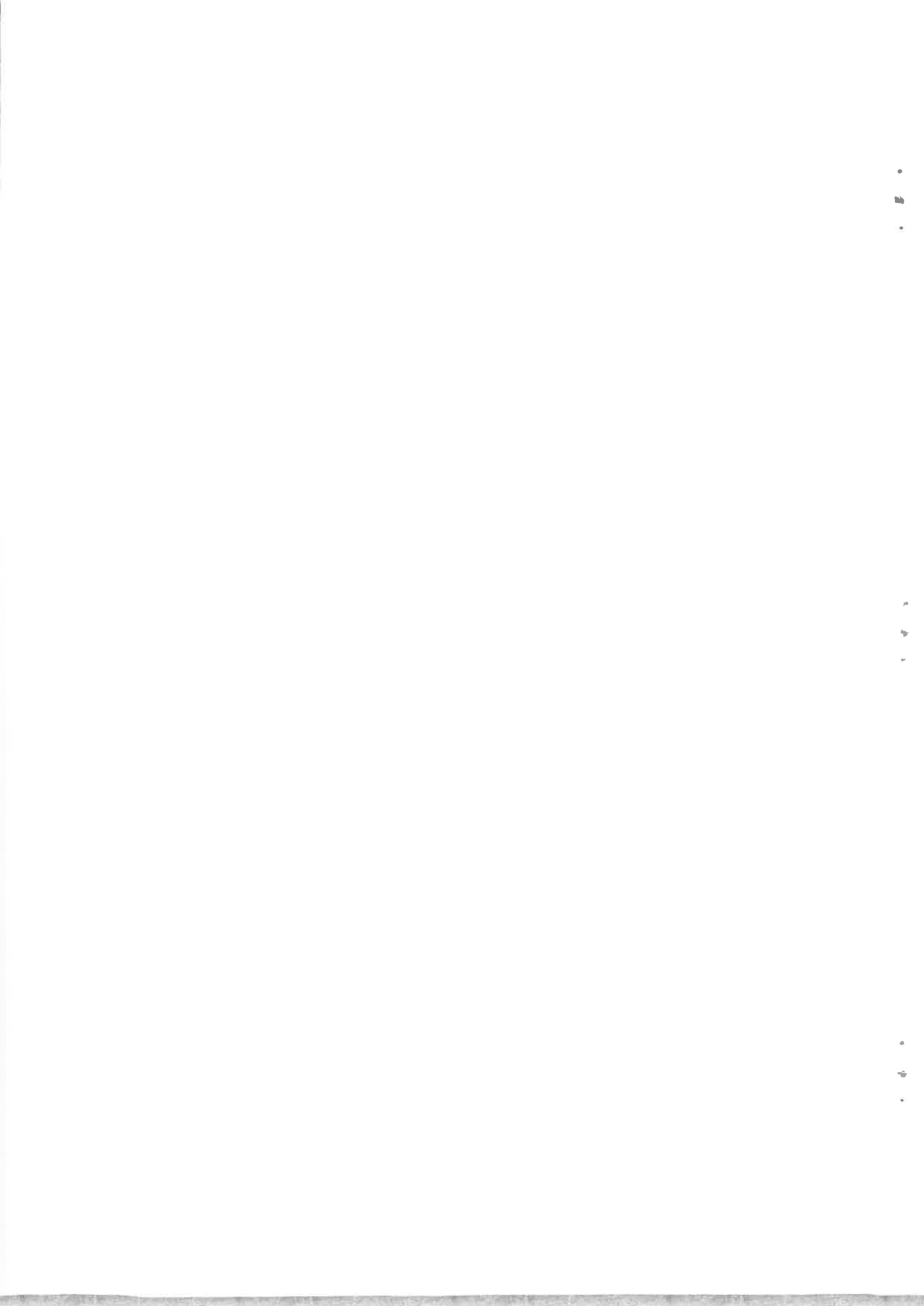
End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

1] (12329) Bachelor Of Computer Application (NEP2.0) (109903) Indian Constitution Part 1 SEM 2





SHIVAJI UNIVERSITY, KOLHAPUR

For College Exam Only

Information to be filled by Student (विद्यार्थ्यांनी भरावयाचा रकाना)

Day and Date :- _____

Language of Answer :- _____

Examination :- _____

Question Paper Code No. :- _____

Subject :- _____

Paper No. :- _____

Section :- _____

SU NO.

Jr. Supervisor's Sign :

Students Sign :

Seat No. _____

Seat No. in words _____

Centre _____

	Examiner Marks	Moderator Marks
Total Marks		
Signature		

IMPORTANT

As per M.P.UA 2016, maharashtra prevention of malpractices at University Board Exam Act 1982, ammendment 1991. Rules and Regulations, whoever is found in or near an examination hall by the invigilator or any other person appointed to supervise the conduct of the examination, copying answers to the question paper set at the examination, from any book, notes or answer papers of other candidates, of appearing at the examination for any other candidates or using any other unfair means, shall, on conviction, be punished with imprisonment for a term which may extend to six months, or with fine which may extend to five hundred rupees or with both.

Whoever abets any offence punishable under this Act shall be punishable with the punishment provided for the offence.

सूचना - महाराष्ट्र सार्वजनिक विद्यापीठ कायदा २०१६, महाराष्ट्र परीक्षा गैरप्रकार प्रतिबंधक कायदा १९८२ (सुधारणा १९९१) व विद्यापीठाचे नियमानुसार जो कोणी परीक्षा हॉलजवळ किंवा हॉलमध्ये पर्यवेक्षकांना किंवा परीक्षेसाठी नेमलेल्या कर्मचाऱ्यांना उत्तरांची पुस्तक नोटस, किंवा अन्य विद्यार्थ्यांच्या उत्तरपत्रिकेतून नक्कल करताना आढळून येईल किंवा जवळ परीक्षा गैरव्यवहारासाठी वापरता येईल असे आक्षेपार्ह साहित्य बाळगत असेल तर सदरची बाब परीक्षा प्रमाद मानून संबंधित व्यक्ती शिक्षेस पात्र राहिल.

Seat No.

Total No. of Pages : 13

March-April 2025 Examination
Bachelor of Arts (Part-I) (Semester-II) (NEP2)
Democracy, Constitution and Election
Subject Code: 110125 / 109934/ 110580/ 109361/ 111185

Day and Date : Friday, 13-06-2025

Total Marks : 40

Time : 10:30 pm to 12:00 pm

Instructions:

1. Instructions:
2. All questions are Compulsory.
3. This Paper contains (20) multiple choice questions, question carrying Two (2) marks.
4. Return the question paper to the Jr. Supervisor after completion of paper.
5. No separate Answer book Will be provide.
6. Student should confirm total number of pages (well stapled together)
7. Write your Answer in given

Q.1 Which of the following is an important feature of democracy?

- a) Hereditary rule
- b) Regular elections
- c) Autocracy
- d) Indirect democracy

Answer

Q.2 In the Preamble of the Indian Constitution, the mention of 'Sovereign, Socialist, Secular, Democratic Republic' refers to what?

- a) An example of implementing democratic values
- b) A key feature of democracy
- c) That the Indian Constitution is based on democratic values
- d) Abraham Lincoln's definition of democracy

Answer

Q. 3 What is one of the important Fundamental Duties?

Answer

- a) Only to achieve economic progress.
- b) To abide by the Constitution and respect its ideals, institutions, the National Flag, and the National Anthem.
- c) Only to look after the interests of one's family.
- d) To promote foreign culture.

Q. 4 Which of the following statements about 'Secularism' is true?

Answer

- a) The state has a specific religion.
- b) In India, no religion is associated with the state, and all religions are treated equally.
- c) People do not have the freedom to adopt their own religion.
- d) The state interferes in religious matters.

Q. 5 What kind of freedom is guaranteed in the value of 'Liberty'?

Answer

- a) Only economic freedom
- b) Only political freedom
- c) Freedom of thought, expression, belief, faith, and worship
- d) Only freedom of travel

Q. 6 Which of the following are included in our National Identity?

Answer

- a) Only various regional languages
- b) Constitution, Tricolor, National Anthem, and National Flag
- c) Only different religious festivals
- d) Local food culture

Q. 7 What similarities are found in Social and Family Values?

Answer

- a) Only nuclear family system
- b) Family system, respect for elders, collective decision-making, festivals, and rituals
- c) Only economic savings
- d) International travel

Q. 8 What is the meaning of the constitutional value 'Democracy'?

Answer

- a) Power being in the hands of one person.
- b) Power being in the hands of the people and every citizen having the right to vote.
- c) Only selected representatives having the right to make decisions.
- d) Having a monarchical system.

Q. 9 Despite India's diversity, what is the common principle that binds Indians together?

Answer

- a) Economic status
- b) Regional language
- c) Our true identity (being Indian, Indianness, and patriotism)
- d) Religious differences

Q.10 How does Indian Culture work to bind us together?

Answer

- a) Only due to historical buildings.
- b) By teaching social unity and mutual respect through principles like respect, tolerance, non-violence, family values, traditions, and rituals.
- c) Only due to traditional dance forms.
- d) Only due to similarity in food items.

Q. 11 Which values are included in the objectives of national progress and unity?

Answer

- a) Only economic competition.
- b) National unity, socialism, secularism, fraternity and harmony, policy of collective welfare.
- c) Only traditional customs.
- d) Only geographical expansion.

Q.12 How is 'Future building on the basis of unity in diversity' achieved?

Answer

- a) Only through competition and differences.
- b) By increasing mutual tolerance and respect, creating equal opportunities for all, strengthening national unity, and having firm faith in democratic values.
- c) Through religious fanaticism.
- d) Only through economic development.

Q 13 What are the benefits of 'Appreciation'?

Answer

- a) Increases self-confidence, makes relationships more positive, and enhances cooperation.
- b) Increases ego.
- c) Creates division in society.
- d) Increases negative feelings about others.

Q.14 What is an important feature of willpower?

Answer

- a) Deviating from the goal.
- b) Fearing obstacles and backing down.
- c) Helping to achieve goals.
- d) Encouraging bad habits.

Q.15 Why is Mahatma Gandhi's example considered a great symbol of willpower?

Answer

- a) He collaborated with the British rule.
- b) He fought against the British rule by adhering to truth and non-violence through his willpower.
- c) He only achieved economic progress.
- d) He succeeded without facing any difficulties.

Q.16 What is the importance of truth in life?

Answer

- a) Only to gain economic stability.
- b) Building trust, leading to a peaceful and contented life, and achieving moral and social justice.
- c) Misleading people.
- d) Only controlling others.

Q.17 In which articles of the Indian Constitution are 'Fundamental Rights' included?

Answer

- a) Articles 36 to 51
- b) Articles 12 to 35
- c) Article 51A
- d) Articles 38 and 39

Q.18 What do 'Directive Principles of State Policy' function as for the government?

Answer

- a) Binding laws.
- b) Guiding principles, aiming to make the country a socialist and egalitarian society.
- c) Basis for judicial decisions.
- d) For the implementation of fundamental rights.

Q.19 How many types of freedoms are included under Article 19 in the 'Right to Freedom'?

Answer

- a) 4
 - b) 5
 - c) 6
 - d) 7
-

Q.20 What is one of the main functions of the Election Commission?

Answer

- a) Making laws.
- b) Planning and organizing elections.
- c) Running the government.
- d) Changing state boundaries.

◆◆◆

मराठी रुपांतर

सूचना : १. सर्व प्रश्न आवश्यक आहेत

२. या प्रश्नपत्रिकेत २० प्रश्न दिले असून प्रत्येक प्रश्नाला २ गुण आहे.

प्र. १ लोकशाहीचे एक महत्त्वाचे वैशिष्ट्य खालीलपैकी कोणते आहे?

Answer

अ) वंशपरंपरागत शासन

ब) नियमित निवडणुका

क) एकाधिकारशाही

ड) अप्रत्यक्ष लोकशाही

प्र. २ भारतीय संविधानाच्या प्रस्तावनेमध्ये 'सार्वभौम, समाजवादी, धर्मनिरपेक्ष, लोकशाही प्रजासत्ताक' असा उल्लेख कशाच्या संदर्भात आहे?

Answer

अ) लोकशाही मूल्यांच्या अंमलबजावणीचे उदाहरण

ब) लोकशाहीचे मुख्य वैशिष्ट्य

क) भारतीय संविधान लोकशाही मूल्यांवर आधारित असल्याचे

ड) अब्राहम लिंकन यांची लोकशाहीची व्याख्या

प्र. ३ मूलभूत कर्तव्यांपैकी एक महत्त्वाचे कर्तव्य कोणते आहे?

Answer

अ) फक्त आर्थिक प्रगती करणे.

ब) राज्यघटनेचे पालन करणे, त्याचे आदर करणे, तसेच त्याचे आदर्श, संस्था, राष्ट्रध्वज आणि राष्ट्रगीताची प्रतिष्ठा राखणे.

क) केवळ आपल्या कुटुंबाचे हित पाहणे.

ड) परदेशी संस्कृतीचा प्रचार करणे.

प्र. ४: 'धर्मनिरपेक्षता' (Secularism) या मूल्याबद्दल खालीलपैकी कोणते विधान सत्य आहे?

Answer

अ) राज्याचा एक विशिष्ट धर्म असतो.

ब) भारतात कोणत्याही धर्माला राज्याशी संबंध नाही आणि सर्व धर्मांना समान वागणूक दिली जाते.

क) लोकांना स्वतःचा धर्म स्वीकारण्याचे स्वातंत्र्य नाही.

ड) धार्मिक बाबींमध्ये राज्य हस्तक्षेप करते.

प्र. ५ 'स्वातंत्र्य' या मूल्यामध्ये कोणत्या बाबतीतील स्वातंत्र्याची हमी दिली आहे?

Answer

- अ) केवळ आर्थिक स्वातंत्र्य
- ब) केवळ राजकीय स्वातंत्र्य
- क) विचार, अभिव्यक्ती, श्रद्धा, विश्वास, आणि उपासना या बाबतीतील स्वातंत्र्य
- ड) फक्त प्रवासाचे स्वातंत्र्य

प्र.६: आपल्या राष्ट्रीय ओळखीमध्ये (National Identity) खालीलपैकी कोणत्या गोष्टींचा समावेश होतो?

Answer

- अ) फक्त विविध प्रादेशिक भाषा
- ब) संविधान, तिरंगा, राष्ट्रगीत आणि राष्ट्रध्वज
- क) केवळ भिन्न धार्मिक सण
- ड) स्थानिक खाद्यसंस्कृती

प्र. ७ सामाजिक आणि पारिवारिक मूल्यांमध्ये (Social and Family Values) कोणती समानता आढळते?

Answer

- अ) केवळ एकल कुटुंब पद्धती
- ब) कुटुंबव्यवस्था, वडीलधाऱ्यांचा सन्मान, सामूहिक निर्णयप्रक्रिया, सण आणि संस्कार
- क) केवळ आर्थिक बचत
- ड) आंतरराष्ट्रीय प्रवास

प्र. ८ 'लोकशाही' (Democracy) या संवैधानिक मूल्याचा अर्थ काय आहे?

Answer

- अ) सत्ता एका व्यक्तीच्या हाती असणे.
- ब) सत्ता जनतेच्या हाती असणे आणि प्रत्येक नागरिकाला मतदानाचा हक्क असणे.
- क) केवळ निवडक प्रतिनिधींना निर्णय घेण्याचा अधिकार असणे.
- ड) राजेशाही पद्धत असणे.

प्र. ९: भारताच्या विविधतेमध्येही भारतीयांना एकत्र बांधून ठेवणारे समान तत्त्व कोणते आहे?

Answer

अ) आर्थिक स्थिती

ब) प्रादेशिक भाषा

क) आपली खरी ओळख (भारतीय असण्याची, भारतीयता आणि राष्ट्रप्रेमाची ओळख)

ड) धार्मिक भिन्नता

प्र. १० भारतीय संस्कृती (Indian Culture) आपल्याला एकत्र बांधण्याचे कार्य कसे करते?

Answer

अ) केवळ ऐतिहासिक इमारतींमुळे.

ब) आदर, सहिष्णुता, अहिंसा, कुटुंब मूल्ये, परंपरा आणि संस्कार या तत्त्वांमुळे सामाजिक एकता आणि परस्पर सन्मान शिकवून.

क) फक्त पारंपरिक नृत्य प्रकारांमुळे.

ड) केवळ खाद्यपदार्थांच्या समानतेमुळे.

प्र. ११ राष्ट्राच्या प्रगती आणि एकतेच्या (National/Social) उद्दिष्टांमध्ये कोणत्या मूल्यांचा समावेश होतो?

Answer

अ) केवळ आर्थिक स्पर्धा.

ब) राष्ट्रीय ऐक्य, समाजवाद, धर्मनिरपेक्षता, बंधुता आणि सौहार्द, सामूहिक कल्याणाचे धोरण.

क) फक्त पारंपरिक रूढी.

ड) केवळ भौगोलिक विस्तार.

प्र. १२: 'विविधतेतील एकतेच्या आधारावर भविष्यातील घडण' कशी घडते?

Answer

अ) केवळ स्पर्धा आणि मतभेदांनी.

ब) परस्पर सहिष्णुता व आदर वाढवून, सर्वांसाठी समान संधी निर्माण करून, राष्ट्राची एकता बळकट करून, आणि लोकशाही मूल्यात दृढ विश्वास ठेवून.

क) धार्मिक कट्टरतेने.

ड) केवळ आर्थिक विकासाने.

प्र. १३ 'प्रशंसा' (Appreciation) केल्याने कोणते फायदे होतात?

Answer

- अ) आत्मविश्वास वाढतो, संबंध अधिक सकारात्मक होतात आणि सहकार्य वाढते.
- ब) अहंकार वाढतो.
- क) समाजात दुफळी निर्माण होते.
- ड) इतरांबद्दल नकारात्मक भावना वाढतात.

प्र. १४ संकल्पशक्तीचे एक महत्त्वाचे वैशिष्ट्य कोणते आहे?

Answer

- अ) ध्येयापासून विचलित होणे.
- ब) अडथळ्यांना घाबरून मागे हटणे.
- क) ध्येय साध्य करण्यात मदत करणे.
- ड) चुकीच्या सवयींना प्रोत्साहन देणे.

प्र. १५ महात्मा गांधींचे उदाहरण संकल्पशक्तीचे उत्तम प्रतीक का मानले जाते?

Answer

- अ) त्यांनी ब्रिटिश सत्तेला सहकार्य केले.
- ब) त्यांनी आपल्या संकल्पशक्तीच्या जोरावर सत्य आणि अहिंसेचे पालन करत ब्रिटिश सत्तेच्या विरोधात लढा दिला.
- क) त्यांनी केवळ आर्थिक प्रगती साधली.
- ड) त्यांनी कोणतीही अडचण न येता यश मिळवले.

प्र. १६ सत्याचे जीवनातील महत्त्व काय आहे?

Answer

- अ) केवळ आर्थिक स्थैर्य मिळवणे.
- ब) विश्वास निर्माण होणे, शांतता आणि समाधानी जीवन लाभणे, नैतिक आणि सामाजिक न्याय मिळणे,
- क) लोकांना फंडाळणे.
- ड) फक्त इतरांवर नियंत्रण ठेवणे.

प्र.१७ भारतीय संविधानातील 'मूलभूत अधिकार' (Fundamental Rights) कोणत्या कलमांमध्ये समाविष्ट आहेत?

Answer

अ) कलम 36 ते 51

ब) कलम 12 ते 35

क) कलम 51 A

ड) कलम 38 आणि 39

प्र.१८ 'निर्देशित तत्त्वे' (Directive Principles of State Policy) सरकारसाठी कशाचे कार्य करतात?

Answer

अ) बंधनकारक कायदे म्हणून.

ब) मार्गदर्शक तत्त्व म्हणून, जे देशाला समाजवादी आणि समता-आधारित समाज बनवण्याचा उद्देश ठेवतात.

क) न्यायालयीन निर्णयांचा आधार म्हणून.

ड) मूलभूत अधिकारांची अंमलबजावणी करण्यासाठी.

प्र.१९ 'स्वातंत्र्याचा अधिकार' (Right to Freedom) मध्ये अनुच्छेद १९ अंतर्गत किती प्रकारच्या स्वातंत्र्यांचा समावेश आहे?

Answer

अ) ४

ब) ५

क) ६

ड) ७

प्र.२० निवडणूक आयोगाचे एक प्रमुख कार्य काय आहे?

Answer

अ) कायदे बनवणे.

ब) निवडणूकांचे नियोजन व आयोजन करणे.

क) सरकार चालवणे,

ड) राज्याच्या सीमा बदलणे.

◆◆◆

Seat No.

BBA-BCA-Sem II

MAR-APR 2025 SUMMER EXAMINATION**11851 Other Elective (All Faculty)****Sub. Name: Science Technology and Development (STD) (SC)****Sub. Code: 110880****Day and Date: APRIL ,27-04-2025****Total Marks: 40****Time: 02.30 PM To 04:00 PM**

- Instructions:**
1. All questions are compulsory
 2. Drawings must be drawn to the given scale
 3. Figures to the right indicate full marks
 4. Use Sketches/Diagrams wherever necessary

Q1) Choose the correct alternative from the following question. खालील प्रश्नासाठी दिलेल्या [10] पर्यायातून योग्य पर्याय निवडा.

i. In which year Disaster Mangement Department was in India?

भारतात आपत्ती व्यवस्थापन विभागाची सुरुवात कधी झाली ?

- A. 2004
अ) २००४
- B. 2005
ब) २००५
- C. 2003
क) २००३
- D. 2001
ड) २००१

ii. How many types of Disaster are there?

आपत्तीचे किती प्रकार आहेत,

- A. Two
अ) दोन
- B. Three
ब) तीन
- C. One
क) एक
- D. Four
ड) चार

iii. Who is the father of Computer?

संगणकाचा जनक कोणास म्हंटले जाते.

- A. Babes
अ) बबेज
- B. Jon Beard
ब) जॉन बेअर्ड



- C. Marconi
क) मार्कांनी
D. Davis
ड) डेव्हिस

iv. Match the following with four alternatives.

Group 1

- 1) National Remote Sensing Organization
- 2) India 1995 VSNL
- 3) Natural Disaster
- 4) Television

जोड्या जुळवून खालीलपैकी योग्य पर्याय निवडा

गट - १

- १) राष्ट्रीय दूरसंवेदन संस्था
- २) भारत १९९५ VSNL
- ३) नैसर्गिक आपत्ती
- ४) दूरचित्रवाणी सेवा

Group 2

- a) Earth
- b) Jon Beard
- c) Hyderabad
- d) First Internet Service

गट - २

- अ) भूकंप
- ब) जॉन बेअर्ड
- क) हैद्राबाद
- ड) पहिली इंटरनेट सेवा

A. 1 - c 2 - d 3 - a 4 - b

अ) १- क २- ड ३-अ ४- ब

B. 1 - b 2 - c 3 - d 4 - a

अ) १- ब २- क ३-ड ४- अ

C. 1 - a 2 - d 3 - c 4 - b

अ) १- अ २- ड ३-क ४- ब

D. 1 - d 2 - c 3 - a 4 - b

अ) १- ड २- क ३-अ ४- ब

v. Statements :

1. Computer is a free thoughtful machine.
2. The speed of computer is very high.

विधान :

१. संगणक स्वतंत्रपणे विचार करतो.
२. संगणक अतिशय वेगाने कार्य करतो.

Which of the following option is correct ?

खालीलपैकी किंता पर्याय योग्य आहे ?

- A. First sentence is wrong and second sentence is right.
अ) विधान एक चूक आहे आणि दोन बरोबर आहे.
- B. Both sentences are right.
ब) विधान एक व दोन बरोबर आहेत.
- C. Both sentences are wrong
क) विधान एक व दोन चूक आहेत.
- D. First sentence is right and second sentence is wrong.
ड) विधान एक बरोबर आहे व दोन चूक आहे.

Q2) Write short note (any two out of four) टिपा लिहा. (चार पैकी कोणत्याही दोन)

[2]

[10]

P.T.O.



QP-4678

- a. Fire Manmade Disaster
अ) आग - मानवनिर्मित आपत्ती
- b. Earthquake Disaster
ब) भूकंप आपत्ती
- c. Geographical Information System
क) भौगोलिक माहिती प्रणाली
- d. Remote Sensing
ड) सुदूर संवेदन

Q3) Write detail answer of the following questions.(Any Two) कोणत्याही दोन प्रश्नाची सविस्तर [20]
उत्तरे लिहा.

- a. Explain what is Disaster?and explain the types of Disaster.
अ) आपत्ती म्हणजे काय ?ते सागून आपत्तीचे प्रकार स्पष्ट करा.
- b. What is Computer? and explain the importance of computer.
ब) संगणक म्हणजे काय ? संगणकाचे महत्व स्पष्ट करा.
- c. Explain the components of Geographical Information System.(GIS)
क) भौगोलिक माहिती प्रणालीचे घटक स्पष्ट करा.
- d. Explain the Disaster Mangement System in India.
ड) भारतातील आपत्ती व्यवस्थापनाची माहिती द्या.

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (11851) Other Elective (All Faculty) (110880) Science Technology and Development (STD) Part 1 SEM 2
(SC)

