

**Jan.-26 – 04 -0444**  
**B.C.A. Sem. -I (NEP) Examination**  
**January -2026**  
**Communication Skills - I MS23AECBCA104**

**Total Marks : 25**

**Time : 2 Hours**

- Que. 1      Attempt the following: (Any Two)      10**
1. What are communication barriers ? Explain any five barriers to effective communication.
  2. Compare and contrast verbal and non-verbal communication with examples.
  3. Explain the communication process with a neat diagram and suitable example.
- Que. 2      A. Find out the correct part of speech of the following underlined words. (Any Two)      02**
1. The beautiful garden was full of flowers.
  2. Please stop making noise.
  3. I only asked a simple question.
- Que. 2      B. Choose the correct form of the verb that agrees with the subject. (Any Two)      02**
1. This pair of shoes \_\_\_\_ too expensive. (is / are)
  2. A number of issues \_\_\_\_ raised during the meeting. (was / were)
  3. Three-fourths of the students \_\_\_\_ submitted the assignment. (has / have)
- Que. 2      C. Change the following active sentences into passive voice. (Any Two)      02**
1. They have completed the project.
  2. Who created this beautiful painting ?
  3. The teacher will check the papers tomorrow.
- Que. 2      D. Change the following Direct speech sentences to Indirect narration. (Any Two)      02**
1. The teacher said, "Don't make noise."
  2. She said, "I have finished my homework."
  3. Rohan said, "I can solve this problem."
- Que. 2      E. Do as directed. (Any Two)      02**
1. You \_\_\_\_ (must / might) wear a helmet while riding a bike.
  2. You \_\_\_\_ (should / will) listen to your elders.
  3. He was late today. (Change into Negative Question)
- Que. 3      Do as directed. (Any Five)      05**
1. What is communication ?
  2. What is meant by effective communication ?
  3. He \_\_\_\_ (break) the glass last night. (Fill correct form of the verb)
  4. What is upward communication ?
  5. She likes classical music.(Make Question)
  6. She \_\_\_\_ speak three languages fluently. (can / may)
  7. She was watering the plants. (Change the voice)

**Que. 5**      **Attempt the following.**      **10**

10

1. Discuss different types of programming language in details.
2. Explain C-Token In Brief.
3. Explain Basic structure of C Program.

10

1. What is operator ? List out all operator? Explain Logical operator with Example.
2. Explain Bitwise operator and conditional operator with Example.
3. Write a C program to interchange two numbers.

10

1. What is switch statement ? Explain syntax with Example.
2. Write a C program to print accepted no and its reverse number.
3. Explain for loop with syntax and Example.

10

1. What is array ? Explain Two Dimensional Array with Example.
2. Explain Table of String with Example.
3. Write a c program to perform Addition of two Matrix.

10

1. Write a syntax of variable declaration.
2. Define: Flowchart.
3. Define: interpreter.
4. Define: getchar()
5. What is type conversion.
6. What is use of gets()
7. \_\_\_\_\_keyword exits a loop.
8. What is Nested if statement.
9. Write syntax of do\_while loop.
10. What denote string end?
11. Array Elements are stored in continuous memory. **[True/False]**
12. Function used to count string length.

Jan.-26 – 04 -0446  
B.C.A. Sem. -I (NEP) Examination  
January -2026  
Mathematics - I MS23SECBCA106

Total Marks : 25

Time : 2 Hours

**Que. 1 Answer the following: (Any Two)**

10

1. If  $A = \{x/x < 4, x \in Z\}$   
 $B = \{y/y^2 \leq 25, y \in Z\}$   
 $C = \{z/z > 0, z \in Z\}$   
Then Verify (i)  $(A \cup B) - C = (A - C) \cup (B - C)$   
(ii)  $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
2. If  $A = \{1,2,3,4,5,6\}$   
 $B = \{2,4,6,8,10\}$   
 $C = \{6,7,8,9,10,11,12\}$   
(i)  $A - B$  (ii)  $B - C$  (iii)  $C - A$  (iv)  $A - (B \cap C)$  (v)  $B - (C \cap A)$
3. State and Prove De Morgan's Law for union and intersection.

**Que. 2 Answer the following: (Any Two)**

10

1. Let a and b be positive integer and suppose R is defined Recursively as follows:  
$$R(a, b) = \begin{cases} 0 & \text{if } (a < b) \\ R(a - b, b + 2) + a & \text{if } (a \geq b) \end{cases}$$
  
Find (i)  $R(5, 3)$  (ii)  $R(25, 3)$
2. If  $f(x) = x + 2$ ,  $g(x) = 3x + 1$  and  $h(x) = 5x + 2$   
Then Find  
(i)  $f \circ g$  (ii)  $g \circ f$  (iii)  $g \circ h$  (iv)  $f \circ h$
3. Evaluate the following .  
(i)  $\log_{10} 1000$  (ii)  $-19 \pmod{13}$   
(iii)  $\text{INT}(-9.13)$  (iv)  $(81)^{3/2}$  (v)  $\lceil -6.7 \rceil$

**Que. 3 Define the following. (Any Five)**

05

1. Difference of two sets.
  2. Universal set.
  3. Floor function.
  4. Recursive function.
  5. One to one function.
  6. Power set.
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**Jan.-26 – 04 -0445**  
**B.C.A. Sem. -I (NEP) Examination**  
**January -2026**  
**Understanding India MS23IKSBCA105**

**Total Marks : 25**

**Time : 2 Hours**

**Que. 1                      Attempt the following: (Any Two)                      10**

1. Explain about Vedic age.
2. Explain about Growth and development of Indian literature.
3. Explain about Geographical features of India.

**Que. 2                      Attempt the following: (Any Two)                      10**

1. Explain about Political ideas behind Social Justice.
2. Explain about Fundamental Duties.
3. Explain about Indian Constitution.

**Que. 3                      Do as directed.                      05**

1. Explain Vedic Texts.
  2. Write full form of AIIMS, BHU.
  3. List out Principles of Satyagraha.
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Que. 1 Attempt the following: (Any Two)

10

1. Explain generation of computer in detail.
2. Explain application software and system software.
3. Explain laptop, workstations and super computer.

Que. 2 Attempt the following: (Any Two)

10

1. Explain CD and DVD in detail.
2. Explain difference between RAM and ROM.
3. Explain switch and modem in detail.

Que. 3 Attempt the following: (Any Five)

10

1. Explain number system in sort.
2.  $(12.25)_{10} = ()_2$
3.  $(A56)_{16} = ()_8$
4.  $(2598.10)_{10} = ()_{16}$
5.  $1101 - 1010$
6.  $(6034.263)_8 = ()_2$

Que. 4 Attempt the following: (Any Two)

10

1. Explain Decoder in detail.
2. Explain half subtractor and full subtractor in detail.
3. Explain logical gates in detail.

Que. 5 Attempt the following.

10

1. Define: ALU
2. Define: software
3. What is cache memory ?
4. Rom is a volatile memory. (True/False)
5. FULL FORM: LCD, EEPROM
6. What is the use of plotter ?
7. What is Flash memory ?
8. List out universal gates.
9. What is XS-3 code ?
10. What is NAND gate ?