

MOUNT CARMEL INTERNATIONAL SCHOOL, AKOLA

Cambridge International



Term End Exam: II

Subject: ICT

Date: 02.04.2024

Student's Name: _____ Roll No: _____ Grade: 8

Marks: 60

Time Duration: 90 minutes

Invigilator's Sign.

SECTION A

(Binary Number System)

Q.1. Convert the following.

(10)

1. $(10)_{10} = (\quad)_2$

6. $(1101)_2 = (\quad)_{10}$

2. $(2F)_{16} = (\quad)_{10}$

7. $(9AD)_{16} = (\quad)_2$

3. $(101110011101)_2 = (\quad)_{16}$

8. $(76)_8 = (\quad)_{10}$

4. $(105)_8 = (\quad)_2$

9. $(25)_{10} = (\quad)_8$

5. $(123)_{10} = (\quad)_{16}$

10. $(10101001)_2 = (\quad)_8$

Q.2. Your teacher has assigned you a task to give a presentation on conversion of octal number into binary numbers and vice-versa. You are asked to create some aids to support your presentation. You have created two tables, Table 1 and Table 2, to demonstrate some examples. (4)

| Octal Number | Binary Equivalent |
|--------------|-------------------|
| 1 | 001 |
| 5 | |
| 3 | 010 |
| 6 | 110 |

Table 1

| Binary Number | Octal Equivalent |
|---------------|------------------|
| 100 | |
| 111 | 7 |
| 011 | 2 |
| 001110 | 16 |

Table 2

In the above tables, some entries have either been missed or incorrect. Answer the following questions based on the above case:

1. What will be filled in the blank space of table 1?

2. Find and rectify the incorrect binary equivalent in Table 1.

3. Fill the appropriate octal equivalent in the blank space of table 2.

4. Find and rectify the incorrect octal equivalent in table 2.

Q.3. What is number system? Write the types of number system. (2)

Q.4. Fill in the blanks.

(2)

1. The binary system consists of two digits_____and_____.
2. The decimal number system uses the digit from_____to_____.
3. The base in the_____number system is written as 10.
4. The base of the hexadecimal number system is represented by_____.

Q.5. What is Binary number system? Write the binary numbers from 0 to 3.

(2)

**SECTION B
(Python)**

Q.6. Complete the sentence with proper word.

(4)

1. "if" statement must end with a_____.
2. _____is used to exit Python shell.
3. The_____statement enables a program to skip over a part of the code.
4. Condition is checked for true or false, the statements are executed only if the condition is_____.

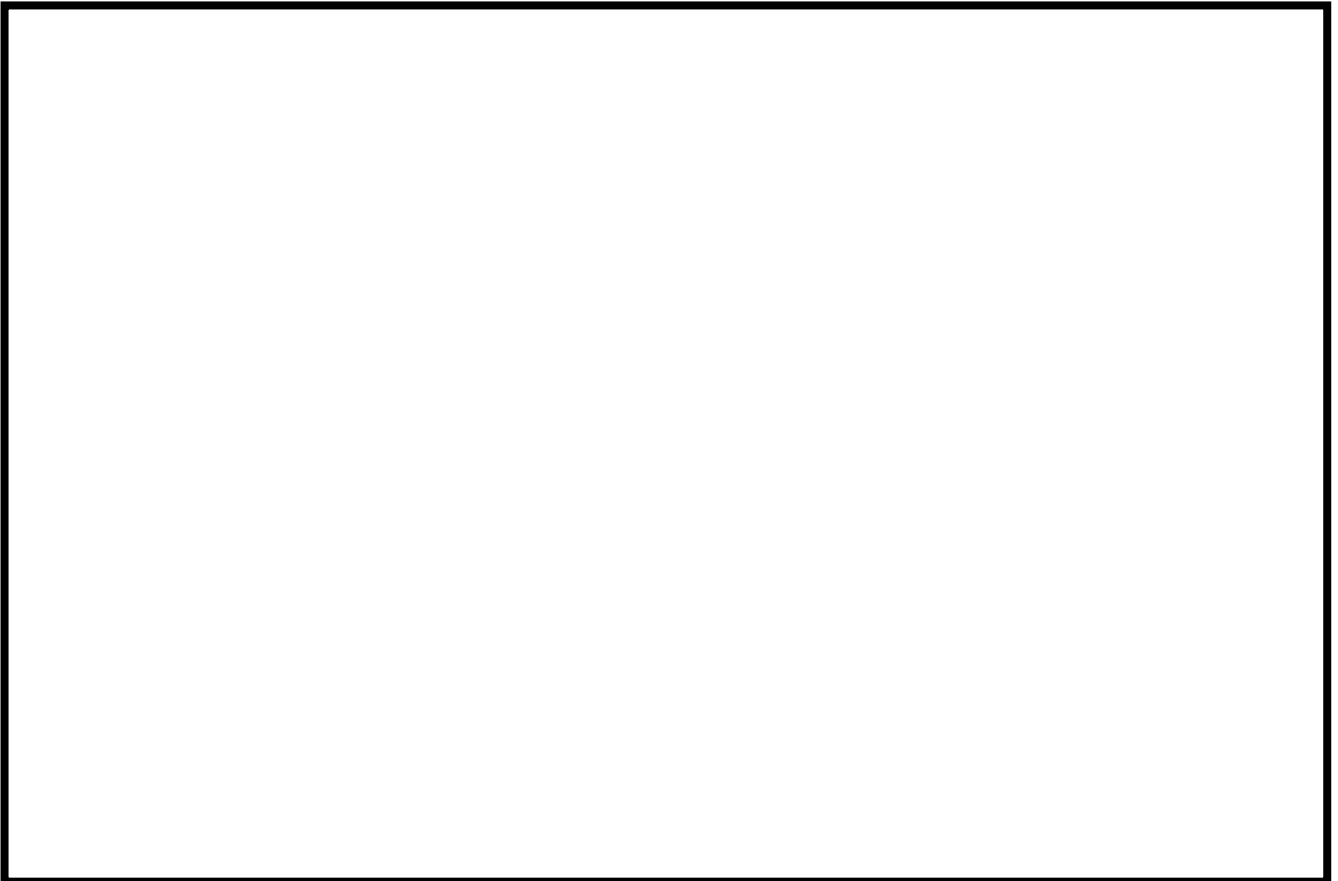
Q.7. Write a program.

(8)

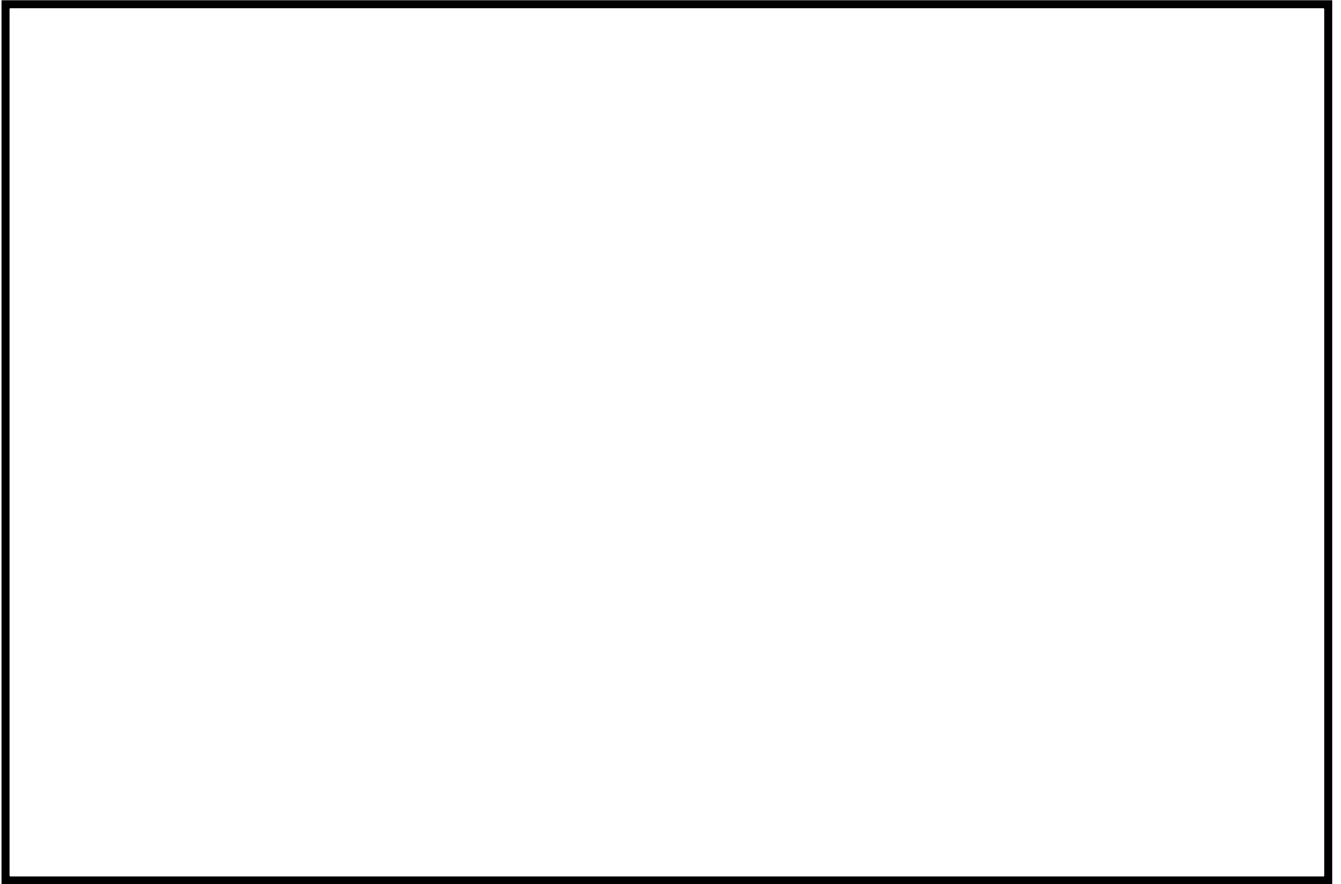
1. Using for loop with string in Python.



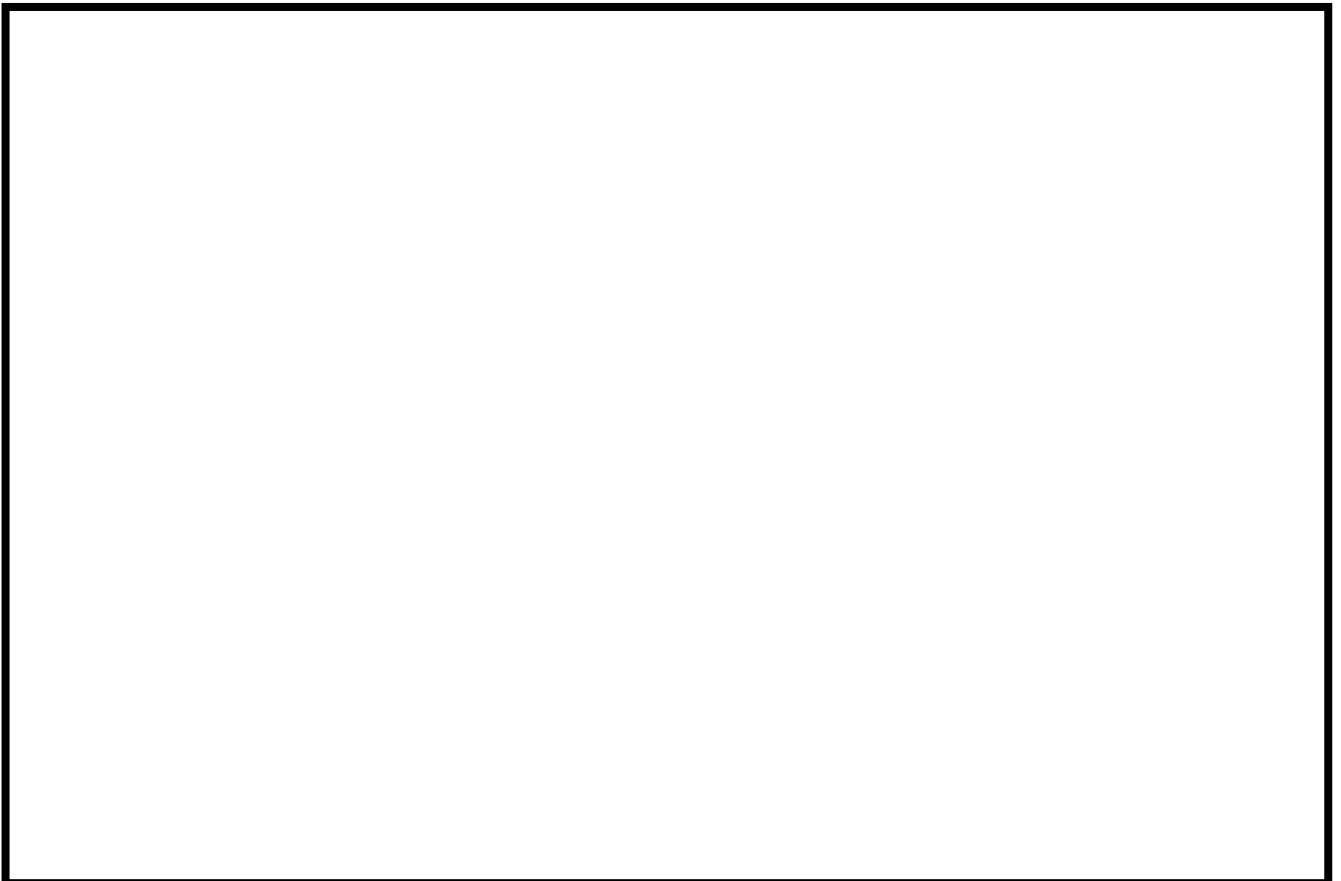
2. To print first 10 natural numbers in reverse order.



3. To print addition of two numbers.



4. To check eligibility of a person to vote or note.



Q.8. What are relational operators? Give examples.

(3)

SECTION C
(Artificial Intelligence)

Q.9. Renumber the following steps used for problem solving in AI.

(4)

- a. Identification of solutions
- b. Implementing
- c. Defining a problem
- d. Analysing the problem
- e. Choosing a solution

1. _____

2. _____

3. _____

4. _____

5. _____

Q.10. State different application areas of AI.

(2)

Q.11. Define AI.

(2)

Q.12. What are the tools used in AI?

(3)

Section D
(Virus and Troubleshooting)

Q.13. Answer the following questions.

(8)

1. Define a computer Virus. How is it different from biological virus?

2. List out the various types of computers viruses.

3. What are the areas to troubleshoot?

4. Write about two commonly faced problems related to the software that you might have also faced.

Q.14. Identify the troubleshoot areas.

(4)

1. Power failure in the computer. _____
2. Windows stops responding. _____
3. You are unable to install a program. _____
4. Windows restarts without warning. _____

Q.15. Give one word for the following.

(2)

1. It may corrupt or delete data on a computer. _____
2. It is used to protect computer from viruses. _____
