AHMEDABAD UNIVERSITY
School of Engineering and Applied Science
2025-2026 Monsoon

ENR106 Introduction to Programming
End-Term Makeup Examination
Friday 02 January 2026. 3:00 pm – 4:00 pm

Name:	Roll no.	A U 2							Marks /30

Instructions:
Duration of the exam: 60 minutes; Total marks: 30; It is a closed-book examination. Therefore, you are not allowed to exchange or refer to any printed material/book during the examination. Use of any type of digital devices or calculator is not allowed during examination.
Write your answers in the space provided below each question. Return the question paper to the invigilator before leaving the examination hall.

Q1. Select the most appropriate answer for each question. **[10]**

1. What characters are used to give single-line comments in Python?

   A. // B. % C. # D. /*

2. What will be the output of the Python code below?

```
for i in [1, 2, 3, 4][::-1]:
    print(i, end=' ')
```

   A. 1 2 3 4
   B. 4 3 2 1
   C. 4 3 2
   D. 3 2 1

3. What will be the output of the Python code below?

```
x = 'abcd'
for i in range(len(x)):
    print(i, end=' ')
```

   A. 1 2 3 4
   B. 0 1 2 3
   C. 4 4 4 4
   D. 3 3 3 3

4. What will be the output of the Python statement below?

```
print(chr(ord('b')+1))
```

   A. 99 B. b C. c D. 97

5. What will be the output of the Python code below?

```
names1 = ['Amir', 'Bala', 'Chales']
if 'amir' in names1:
    print(1)
else:
    print(2)
```

   A. 1 B. 2 C. 12 D. Error

6. Set makes use of _____ whereas Dictionary makes use of _____
   A. keys, keys
   B. keys, key values
   C. key values, key values
   D. key values, keys

7. What will be the output of the Python code below?

```
x = 50
def func(x):
    print('x is', x)
    x = 2
    print('Changed local x to', x)
func(x)
print('x is now', x)
```

   A. x is 50
      Changed local x to 2
      x is now 50
   B. x is 50
      Changed local x to 2
      x is now 2
   C. x is 50
      Changed local x to 2
      x is now 100
   D. None of the above

8. What will be the output of the Python code below?

```
i = 1
while True:
    if i%2 == 0:
        break
    print(i, end=' ')
    i += 2
```

   A. 1
   B. 1 2
   C. 1 2 3 …
   D. 1 3 5 …

9. What will be the output of the Python statement below? Assume x=1.

```
x<<2
```

   A. 0
   B. 1
   C. 2
   D. 4

10. What is the output when we execute list("hello")?
   A. ['h', 'e', 'l', 'l', 'o']
   B. ['hello']
   C. 'hello'
   D. HELLO

Q2. Answer the following questions. **[10]**

1. Which of the following describes executable code?
   A. Code written in high-level languages like Python or C.
   B. Code that is partially translated and requires interpreter support to run.
   C. Fully translated machine code that can be directly executed by the CPU.
   D. Code that is generated only by interpreters, not compilers.

   Answer: _____

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

```
#include<stdio.h>
int main() {
      int marks[5] = {10, 20, 30, 40, 50};
      int i;
      for(i=0; i<=5; i++) {
            if(i<=3)
            {
                  marks[i] = i+marks[i];
                  printf("%d", marks[i]);
            }
      }
      return 0;
}
```

   Answer: _____

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

```
#include <stdio.h>
int main()
{
    int i;
    for(i = 1; i <= 5; i++);
    printf("%d", i);
    return 0;
}
```

   Answer: _____

4. How many times statements inside the loop will be executed?

```
#include <stdio.h>
int main() {
      int i = 1;
      while(i <= 5) {
            i += 2;
      }
      return 0;
}
```

   Answer: _____

5. Predict output of following C code:

```
#include <stdio.h>
int main() {
    int x = 3, y = 4, z=5;
    z = (x > y) ? x : y;
    printf("%d", z);
    return 0;
}
```

Answer: _____

6. In C programming, a float variable declared outside all functions or declared using the static keyword is automatically initialized to which value?

Answer: _____

7. Which decision-making statement is used to select one option from multiple conditions?

Answer: _____

8. What is the correct way to declare a function in C programming that returns an integer?

Answer: _____

9. The following C program is intended to read and display a 3×3 matrix, but it contains some errors. Identify the errors and circle them in the given program.

```
#include<stdio.h>
int main()
{
  int row, col, arr[2][2];
  for(row=0; row<3; row)   // rows
  {
    for(col=0; col<3; col) //columns
    {
       printf("Enter matrix number[%d][%d]:", row, col);
       scanf("%d", arr[row][col]);

    }
    printf("The 3 X 3 matrix:\n");
    for(row=0; row<3; row++) {
      for(col=0; col<3; col++) {
         printf("%d ", arr[row][col]);
      }
      printf("\n");
    }
}
```

10. What will be the output of the following code?

```
#include <stdio.h>
int main() {
    int a[5] = {1, 2, 3};
    printf("%d", a[4]);
    return 0;
}
```

A. Garbage value B. Compilation error C. 0 D. 3

Answer: _____

Q3. Answer the following questions. **[10]**

(A) Write a Python program to recursively sum the first N positive numbers. Ask the user to enter the value of N. For example, if the user enters 5, then the output should be 15.

Answer:

(B) Write a C program that copies the contents of the file **students.txt** into a file named **backup.txt**. Assume both files are located in the same directory as the source program. Include all necessary validations, such as checking file existence and successful file operations.

Answer: