



THE POLYTECHNIC, IBADAN
DEPARTMENT OF COMPUTER STUDIES
SECOND SEMESTER EXAMINATION 2022/2023 SESSION

COURSE CODE: COM 121
COURSE TITLE: INTRODUCTION TO C PROGRAMMING
CLASS: ND I COMPUTER (FT & DPP)
TIME ALLOWED: 2 1/4 HOURS
INSTRUCTION: ANSWER QUESTION ONE(1) IN SECTION A AND ANY OTHER FOUR(4) FROM SECTION B.

SECTION A

QUESTION ONE

- a. Write TRUE OR FALSE in response to the following questions
- When a variable is created in C, a memory address is assigned to the variable.
 - In C, code statements must end with a colon.
 - C was first implemented on the digital equipment corporation PDP-11 in 1970.
 - The instructions in machine language must be in binary digits.
 - C is a successor of B language.
 - PRINTF() function is used for input.
 - C was invented to write an operating system called Unix
 - Keywords can be used for any other purpose.
 - Every C program can have many main functions.
 - C is the most widely used system programming language.
 - Files created with text editors are called the source files
 - All C programs are written into text files with extension .c
 - To store a word/sentence, you declare a variable of the type 'string'.
 - A C program that prints three lines of output *must* contain three printf statements.
 - All variables must be declared and given a type before they are used.
 - Arrays are used to store multiple values in different variables.
 - main is a legal identifier in C.
 - String constants should be enclosed between single quotes
- b. What is the output of the following code snippet?
- ```
#include <stdio.h>
int main() {
 printf("I am proud to be a student of computer science\n\n I am writing
com 121 examination.\n \n I promised to be obedient and respectful.\n I am
born to excel, so help me God.");
 return 0;
}
```

SECTION B

QUESTION TWO

- Briefly explain what you understand by C tokens 2 marks
- In a tabular form, highlight the six(6) types of C tokens you know and give two(2) examples for each of them. 9 marks
- What is compilation? 1 mark



### QUESTION THREE

a. Fill in the gaps with the most appropriate word

- i. In the earliest days of computing, the only programming language available was \_\_\_\_\_
- ii. \_\_\_\_\_ translates symbolic code into its equivalent machine code
- iii. C was developed by \_\_\_\_\_ in the year \_\_\_\_\_
- iv. \_\_\_\_\_ are words that convey a special meaning in C compiler
- v. C is a \_\_\_\_\_ level language
- vi. \_\_\_\_\_ character is used to insert new lines in C
- vii. \_\_\_\_\_ symbol is used as a statement terminator in c
- viii. \_\_\_\_\_ keyword can be used to make a variable unchangeable/read-only
- ix. All keywords in C are in \_\_\_\_\_ case
- x. How many keywords are there in c?
- xi. \_\_\_\_\_ is the function of \n in c programming
- xii. Create a variable named myNum and assign the value 40 to it.

### QUESTION THREE

a. Briefly explain the following computer languages

- i. Machine language
- ii. Symbolic language

2 marks each

b. State three(3) advantages of symbolic language and three(3) disadvantages of machine language.

6 marks

c. Learning in English language requires the following basic steps.

Alphabet ----- words ----- sentences ----- paragraph. Write its equivalent in learning C program.

2 marks

### QUESTION FOUR

a. What is

- i. data type
- ii. Variable
- iii. Identifiers

1 mark each

b. Highlight any four ( 4) rules for constructing identifiers in C

4 marks

c. Enumerate the basic data types in C

2 marks

d. What will be the output of the following C code? Give reasons for your answer

3 marks

```
1. #include <stdio.h>
2. int main()
3. {
4. int ThisIsVariableName = 12;
5. int ThisIsVariablename = 14;
6. printf("%d", ThisIsVariablename);
7. return 0;
8. }
```