

NATIONAL OPEN UNIVERSITY OF NIGERIA, PLOT 91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI – ABUJA FACULTY OF SCIENCES DEPARTMENT OF COMPUTER SCIENCE 2023 1 POP EXAMINATION...

COURSE CODE: CIT301

COURSE CREDIT: 2

COURSE TITLE: STRUCTURED PROGRAMMING

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE AND ANY OTHER TWO (2) QUESTIONS

QUESTIONS

QUESTION 1

1a. Name and expound on the four (4) files used in a C Program (12 marks)

1b. State any three (3) reasons for the popularity of the C programming language (3 marks)

1c. Elucidate on the five (5) phases of program development in the order of precedence. (15 marks)

[Total = 30 marks]

Question 2

- 2a. As an intern in a software development firm, you are required to make a recommendation on the most effective programming approach that will provide recursive functions. Write your recommendation. (9 marks)
- 2b. State any six benefits of programming approach recommended in 2a (6 marks)
- 2c. Write down the syntax for a Function with no arguments and return values. (5 marks)

[Total = 20 marks]

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QUESTION 3

3a. Expound on the five characteristics of a good program. (10 marks)

3b. Write down and describe the content of program documentation (5 marks)

3c. Outline the role of a Function Prototype. (3 marks)

3d. State the Syntax for a Function Protype. (2 marks)

[Total = 20 marks]



Question 4

- 4a. Elucidate on the notion of Data Abstraction within the context of structured programming. (3 marks)
- 4b Write a simple function to select the largest of 3 numbers (10 marks)
- 4c. Give a concise description of a compound statement within the context of structured programming

(2 marks)

4d. State any 2 differences between formal and local arguments.

(5 marks)

[Total = 20 marks]

Question 5

- 5a. Name and explain any four common types of programming paradigm (12 marks)
- 5b. Expound on the notion of a programming model (3 marks)
- 5c. Write down a Function that reads data and prints result in same block. (5 marks)

[Total = 20 marks]