



UGANDA BUSINESS AND TECHNICAL EXAMINATIONS BOARD

Business and Humanities Certificate Examinations

MAY-JUNE SERIES

PROGRAMME

PROFESSIONAL CERTIFICATE IN SOFTWARE ENGINEERING (PCSE)

PAPER NAME

ELEMENTARY PROGRAMMING IN C
(THEORY)

PAPER CODE

PCSE112/1

YEAR I, SEMESTER 1

3 HOURS

10TH MAY 2021

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **two** sections **A** and **B**.
2. Section **A** is compulsory and carries **20** Marks.
3. Section **B** consists of **six** questions, Answer only **four** questions to carry **80** Marks.
4. All answers to each question should begin on a fresh page.
5. All questions carry equal marks.
6. **Do not** write on this question paper.
7. **All answers and rough work should be done in the official answer booklet provided.**
8. Read other instructions on the answer booklet.

SECTION A – (20 MARKS)

Answer all questions in this section

Question One

- a) Give two uses of getchar () (2marks)
- b) What is a nested if? (2marks)
- d) What is a file? (2marks)
- e) Write the following in full?
 - i) stdaux (2marks)
 - ii) stdprn (2marks)
 - iii) stderr (2marks)
 - iv) stdout (2marks)
- f) Explain the following words.
 - i) break statement (2marks)
 - ii) continue statement(2marks)
 - iii) goto statement (2marks)

SECTION A – (80 MARKS)

Answer only four questions in this section

Question Two

- a) i) Give two uses of getchar () (2marks)
- ii) Give three arguments of a putchar () function in C. (3marks)
- iii) What is a nested if? (2marks)
- (b)What do we understand by the following terms?
 - i) Call by value (2marks)
 - ii) Call by reference (2marks)
 - iii) External (1mark)
 - iv) Static (1mark)
- (c)Describe what file handling is? (2marks)
- (d)Explain the following functions in teams of file handling.
 - (i)fgetc() (1mark)
 - (ii)fread() (1mark)
 - (iii)fwrite() (1mark)
 - (iv)fseek() (1mark)

(iiv)fprintf() (1mark)

Question Three

- (a) Write a C program that converts Celsius to Fahrenheit. (8marks)
- (b) Write a C program to convert specified days into years, weeks and days. (8marks)
- (c) Write a C program to print a to big 'C'. (8marks)
- (d) Write a program in C to display the pattern like right angle triangle using an asterisk. (8marks)
- (e) Write a C program to calculate the area and perimeter of a square (8marks)

Question Four

- a) Describe the following words
 - i) return (4marks)
 - ii) while loop (4marks)
- b) Define the following.
 - i) What are binary streams? (2marks)
 - ii) Text streams. (2marks)
 - iii) Constant (2marks)
- c) i) What is difference between far and near pointers? (4marks)
- ii) What is a variable? (2marks)

Question Five

- a) Describe what file handling is? (2marks)
- b) What are the five key features in the C programming language and explain them. (10marks)
- c) Give four types of loops statements in C(4marks)
- d) Define the following.
 - i) Return Type :(1mark)
 - ii) Function Name: (1mark)
 - iii) Parameters :(1mark)
 - iv) Function Body: (1mark)

Question Six

- (a)What are functions in C programming? (2marks)
- (b)What is a function prototype? (2marks)
- (c)Explain what function declarations are? Give four (4marks)
- (d)Explain the three types of variable below?
 - i) Local Variables (2marks)
 - ii) Formal Parameters (2marks)
 - iii) Global Variables (2marks)
- (e)What do we understand by the following terms?
 - i) Call by value (2marks)
 - ii) Call by reference (2marks)
 - iii) External (1mark)
 - iv) Static (1mark)

Question Seven

- (a)What is a variable? (2marks)
- (b)How does bitwise operator XOR works. (2marks)
- (c)What are valid operations on pointers? (2marks)
- (d)Define a structure. (2marks)
- (e)How many key words form up C programming language (2marks?)
 - i) Explain a constant pointer? (2marks)
 - ii) What is difference between far and near pointers? (4marks)
 - iii) What is an infinite loop? (2marks)

END