

G-19-20

Roll No.....

Annual Examination, 2020

B.Sc. Part I

INFORMATION TECHNOLOGY

Paper II

(Programming Concept using 'C' Language)

Time : 3 Hours]

[MAXIMUM MARKS : 50

Note : Section 'A' is Objective type and is compulsory. It should be written on the **first page** of Answer-book. Section 'B' is Short answer type and Section 'C' is Long answer type.

Section 'A'

(Multiple Type Questions) 1×10=10

Choose the correct answer :

1. Which data type is most suitable for storing a number 65000 in a 32-bit system ?
(a) short (b) int (c) long (d) double.
2. Which is correct with respect to size of the data types ?
(a) char > int > float (b) int > char > float
(c) char < int < double (d) double > char > int.

P.T.O.

3. The continue statement cannot be used with :
- (a) for
 - (b) while
 - (c) do while
 - (d) switch.
4. Which loop is guaranteed to execute at least one time :
- (a) for
 - (b) while
 - (c) do while
 - (d) None of the above.
5. Which of the following cannot be checked in a switch-case statement ?
- (a) character
 - (b) integer
 - (c) float
 - (d) enum.
6. In the given below statement, what does the "arr" indicate ?

`char*arr[30];`

- (a) arr is a array of function
 - (b) arr is a array of 30 characters
 - (c) arr is pointer to an array
 - (d) arr is a array of 30 character pointers.
7. What is a built in library function to adjust the allocated dynamic memory size :
- (a) malloc
 - (b) calloc
 - (c) realloc
 - (d) resize.

8. What function can be used to free the memory allocated by `calloc()` ?
- (a) `dealloc()` (b) `strcat()`
(c) `free()` (d) `memcpy()`.
9. Which type of file can't be opened using `fopen()` ?
- (a) `.txt` (b) `.bin`
(c) `.c` (d) None of the above.
10. `getc()` returns EOF when :
- (a) End of files is reached
(b) When `getc()` fails to read a character
(c) Both of the above
(d) None of the above.

Section 'B'

(Short Answer Type Questions) 3×5=15

Note : Write short answer of all the *five* questions.

1. Explain the basic data types associated with C.

Or

What are the operators in C ? Explain.

2. Explain branching statement in C.

Or

What do you know about function ? Write a suitable program in C.

3. Illustrate the initialisation of a one dimensional array with an example.

Or

What is Union ? Explain.

4. What is pointer ? Explain.

Or

Explain array of pointer.

5. Explain any two file handling function.

Or

Explain the use of fopen and fclose.

Section 'C'

(Long Answer Type Questions) 5×5=25

Note : Write long answer of all the **five** questions.

1. Explain the following functions :

(a) getch()

(b) putchar().

Or

What is type casting ? Explain it with suitable example.

2. Explain any two control statement. Also write a suitable program in C.

Or

Explain the working concept of call by value and call by reference with suitable program in C.

3. Show the storage of a two dimensional array in memory with the help of diagram.

Or

What is a Union ? How is it different from a structure ?

4. Explain the difference between malloc(), calloc() and realloc() in term of the functions they perform.

Or

What is dynamic memory allocation ? Explain.

5. Mention the difference between the operation of :

(a) fwrite and fprintf

(b) fread and fscanf.

Or

What is pre-processor ? Explain :

#include and #define.

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