Reg. No. $\square$

# Choice Based Credit System Sixth Semester B.A. Degree Examination, September 2022 <br> (2019-2020 Onwards) <br> DATA PROCESSING <br> Problem Solving with C 

Time : 3 Hours
Max. Marks : 80
Note : Answer any ten questions from Part - A and answer one
full question from each Unit in Part - B.
PART - A

1. a) Write any two features of $C$ program.
b) What are Keywords ? Give an example.
c) List the different forms of 'if' statements.
d) Differentiate between string and character constants.
e) Write the usage of isalpha() function with example.
f) What is an Array ? How do we declare one dimensional array ?
g) What is the use of goto statement in C ? Write its syntax.
h) List the different methods to pass parameters to a function.
i) What are static variables ? How do we declare it ?
j) Write the general format used for declaring a structure.
k) List any four file input/output functions.
I) What is a file ? List the different modes of opening a file.
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\begin{gathered}
\text { PART - B } \\
\text { Unit - I }
\end{gathered}
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2. a) What are C Tokens ? Explain.
b) Explain the structure of C program.
c) Explain the formatted input statement with syntax and example.
OR
3. a) Explain the following operators :
a) Arithmetic operators.
b) Logical operator.
b) Explain the fundamental data types in C.
c) What are identifiers? Write the rules for naming the identifiers.

## Unit - II

4. a) Explain do ..while statement with syntax and example.
b) With syntax and example, explain else if ladder.
c) Write a program to find the maximum of three numbers.

OR
5. a) Explain for statement with syntax and example.
b) What do you mean by nesting of if statement ? Explain with syntax and example.
c) Write a program to print first N Fibonacci numbers.
Unit - III
6. a) Explain any two mathematical functions with syntax and example.
b) Explain with example, the actual and formal parameters.
c) What is recursion ? Explain with example.
7. a) Explain the general form of defining user defined function.
b) Explain the following string functions with example :
i) strlen()
ii) $\operatorname{strcpy}()$
iii) strcat()
iv) $\operatorname{strcmp}()$
v) $\operatorname{strlwr}()$.
c) Write a recursive function to find the factorial of a number.
Unit - IV
8. a) What is structure ? How do you define and access structure explain with Syntax and example.
b) What is pointer? How do you declare, initialize and access a pointer variable? Give example.
c) Explain the following :
a) Macro Substitution
b) File Inclusion.

OR
9. a) Differentiate between structure and union.
b) Explain fscanf and fprintf functions with example.
c) Write a program to create a text file and display its content.

