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Question Paper Code: ACSB01



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Four Year B.Tech I Semester End Examinations(Regular) - December, 2019

Regulation: IARE – R18

PROGRAMMING FOR PROBLEM SOLVING

Time: 3 Hours

(Common to ME | AE)

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- (a) What is a flow chart? Draw a flow chart to find largest number among given three numbers. [7M]
(b) Write the fundamental data types along with its size and range? Explain bit-wise operators with example. [7M]
- (a) Explain about the structure of a C program with suitable example. [7M]
(b) Write a C program to read the temperature in Fahrenheit and convert it into Celsius by using the formula $C = (F - 32) \times 5/9$ [7M]

UNIT – II

- (a) Differentiate while and do-while statements with an example. [7M]
(b) Write a program to find Fibonacci numbers upto given number. [7M]
- (a) Explain else..if ladder with suitable example. [7M]
(b) Differentiate break and continue with suitable C code. [7M]

UNIT – III

- (a) Explain the following string handling functions with example:
i) strcpy()
ii) strcat()
iii) strrev()
iv) strcmp()
v)strupr() [7M]
(b) Write a C program to implement the given string is palindrome or not. [7M]
- (a) Explain about call by value and call by reference with example. [7M]
(b) Write a C program to find the reverse of the string without using library function. [7M]

UNIT – IV

7. (a) Compare and Explain the following with suitable examples
i) Nested Structures [7M]
ii) Array of structures [7M]
(b) Write a C program to access elements of an array using pointers. [7M]
8. (a) Explain dynamic memory allocation functions in C in detail. [7M]
(b) Write a C program to swap two numbers using pointers. [7M]

UNIT – V

9. (a) What are the error handling function for files in C? State the various types of status enquiry library functions in C? [7M]
(b) Write a C program to find the given element using linear searching. [7M]
10. (a) Write the syntax of the following file I/O functions and explain every option in each function with suitable example
i) fopen()
ii) fclose()
iii) fread()
iv) fwrite() [7M]
(b) Write a C program to reverse the content of a file using command-line arguments. [7M]