BT–MRE – I & II(S) – 05.15 –0575 Reg. No.

C

B.Tech. Degree I & II Semester Supplementary Examination in Marine Engineering May 2015

MRE 109 COMPUTER FUNDAMENTALS

Time : 3 Hours Maximum Marks : 100

(5 × 20 = 100)

I.	(a)	Explain the different parts of a computing system, with a help of a neat diagram. Also mention the currently available configuration of a personal computer.	(10)
	(b)	Differentiate between a compiler and interpreter.	(10)
		OR	
II.	(a)	Explain the classification of programming languages with examples.	(10)
	(b)	Describe the different types of computer networks.	(10)
III.	(a)	What is data type? Explain any four data types used in C language.	(8)
	(b)	Explain **continue** and **break** statements in C language.	(2)
	(c)	Write a C program to print 15 terms of 1, 2, 4, 7, 11, 16, ...	(10)
		OR	
IV.	(a)	Write a C program to print square of all numbers 1 to 20 and print sum squares.	(10)
	(b)	Compare while loop and for loop with example.	(10)
V.	(a)	What is function? List out advantages and disadvantages of functions.	(8)
	(b)	What is static variable and what is its scope?	(2)
	(c)	Explain in detail call by value and call by reference with example.	(10)
		OR	
VI.	(a)	What is meant by function argument, function call and return?	(8)
	(b)	What is automatic variable and what is the use of it?	(2)
	(c)	Write a C language program using recursive function to enter a 4 digit number and find the sum of all digits of the number.	(10)
VII.	(a)	What do you mean by pre-processor directives? List and explain its different categories.	(10)
	(b)	Write a C language program to read n numbers in an array and split the array into two arrays even and odd such that the array even contains all the even numbers and other is odd.	(10)
		OR	
VIII.	(a)	Write a C language program to swap two numbers using pointers and function.	(10)
	(b)	Write a C language program using structure to define employee record containing employee number, name and salary. Read 10 records.	(10)
IX.	(a)	Define a class. What is its relevance in object oriented programming?	(10)
	(b)	What is inheritance? What are the different types of inheritance?	(10)
		OR	
X.	(a)	Define a data base management system. Describe the three models.	(10)
	(b)	Describe the basic operations of relational algebra.	(10)

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