BT MRE-II(R/S)-06-22-0779 Reg. No. | | | | | | | | |

C

B.Tech. Degree II Semester Regular/Supplementary Examination in Marine Engineering June 2022

19-208-0205 COMPUTER PROGRAMMING

(2019 Scheme)

Time: 3 Hours Maximum Marks: 60

Course Outcome
On successful completion of the course, the students will be able to:

CO1: Write algorithms for problems.
CO2: Acquire knowledge of the syntax and semantics of C programming language for solving problems.
CO3: Code a given logic in C language using arrays.
CO4: Handle data using SQL and understand basics of OOP.
CO5: Write programs involving structures and do file management.

Bloom's Taxonomy Levels (BL): L1 – Remember, L2 – Understand, L3 – Apply, L4 –Analyze, L5 – Evaluate, L6 – Create
PO – Programme Outcomes

PART A
(Answer *ALL* questions)

			(5 × 15 = 75) Marks	BL	CO	PO
I.	(a)	Explain the difference between compiler and interpreter.	7	L1	1	1
	(b)	What is RAM? Briefly explain the different types of RAM. What is cache and its purpose?	8	L1	1	1
		OR				
II.		Explain the following terms: (i) Bus Topology (ii) BIOS (iii) Central Processing Unit (iv) WAN (v) Virtual Memory.	15	L1	1	1
III.	(a)	What is a nested loop? Write a program to print the following pattern. 1 2 2 3 3 3 4 4 4 4 5 5 5 5 5	8	L2, L3	2	2
	(b)	What is continue? Explain its use with a suitable example.	7	L2	2	3
		OR				
IV.	(a)	What is typecasting? Explain with suitable example.	7	L2	2	1
	(b)	What is the difference between static and auto variable? Using static variable, print the first n terms of Fibonacci Series.	8	L2, L3	2	2

(P.T.O)

			Marks	BL	CO	PO
V.	(a)	Write a program to search for a given number in a list of numbers using binary search method. What is the advantage of using binary search over linear search?	8	L3	3	4
	(b)	Write a program to find the length of a given string without using library function.	7	L3	3	3
		OR				
VI.	(a)	What are the various parameter passing mechanisms? Explain with examples.	7	L2	3	2
	(b)	Write a program for matrix addition.	8	L3	3	4
VII.	(a)	What are the main features of OOP?	8	L1	4	1
	(b)	Analyse the difference between (i) DROP TABLE and DELETE (ii) ALTER TABLE and UPDATE in SQL.	7	L4	4	2
		OR				
VIII.	(a)	What is inheritance in OOP?	5	L1	4	1
	(b)	Write the SQL query for the following based on the table below.		L3	4	4
		Table: Students | RollNo |Name | Marks |				
		(i) Display the name and marks of students in descending order of their marks	2			
		(ii) Display all the details of students who got less than 40 marks	2			
		(iii) Display the names of students whose name starts with 'K'	2			
		(iv) Add a new student detail as roll no.: 39, Name: Jayakrishnan, Marks: 84	2			
		(v) Delete the table students.	2			
IX.	(a)	What is fseek? What is the syntax and how is it used? Explain with a suitable example.	7	L2	5	2
	(b)	Analyse the difference between an array and a union with a suitable example.	8	L4	5	1
		OR				
X.	(a)	What is a structure? Explain pointer to a structure using a suitable example.	7	L2	5	1
	(b)	Using an array of structure, store Customer no., Customer Name, Units consumed and calculate the amount to be paid for n customers. The amount to be paid is ₹3.50 /unit consumed. Display the details in tabular format.	8	L3	5	3

Blooms's Taxonomy Levels
L1 – 27%, L2 – 31%, L3 – 31%, L4 – 11%.

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