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CYCLE TEST – I

Academic Year: 2022-2023 (ODD Semester)

Program offered: B.Tech (All Branches)

Max. Marks: 25

Duration: 50 minutes

Year / Sem: I / I

Date: 13-10-2022

Course Code and Title: 21CSS101J: Programming for Problem Solving

Course Learning Rationale (CLR):

CLR-1: Think and evolve with a logic to construct an algorithm and pseudocode that can be converted into a program.

Course Learning Outcomes (CLO):

CLO-1: To solve problems through computer programming. Express the basic data types and variables in C

Part A (10*1=10 Marks)

Sl.No	Question	CO	PO	BL	Marks	PI CODE
1	Standard ANSI C recognizes _____ number of keywords <ul style="list-style-type: none"> • 30 • 32 • 36 • 42 	1	1	1	1	1.6.1
2	In C, the maximum value of an unsigned int is <ul style="list-style-type: none"> • $2^{16} - 1$ • $2^{15} - 1$ • 2^{16} • 2^{15} 	1	2	1	1	2.5.2
3	In C, by default a real number is treated as a _____ <ul style="list-style-type: none"> • Float • Double • Long • Long double 	1	2	1	1	2.5.2

4	<p>The format identifier "%Lf" is also used for _____ data type.</p> <ul style="list-style-type: none"> • Unsigned Int • Double • Unsigned Long • Long Double 	1	2	1	1	2.5.2
5	<p>Which of the following operators has an associativity from Right to Left?</p> <ul style="list-style-type: none"> • <= • << • == • += 	1	2	1	1	2.5.2
6	<p>Which of the following is the correct order of evaluation for the given expression?</p> <p>a = w % x / y * z;</p> <ul style="list-style-type: none"> • % / * = • / * % = • = % * / • * % / = 	1	2	1	1	2.5.2
7	<p>Which one of the following is not a reserved keyword for C?</p> <ul style="list-style-type: none"> • auto • case • main • register 	1	2	1	1	2.5.2
8	<pre>void main() { int i=0, j=1, k=2, m; m = i++ j++ k++; printf("%d %d %d %d", m, i, j, k); }</pre> <p>Find the output of the above code</p> <ul style="list-style-type: none"> • 1123 • 1122 • 0122 • 0123 	1	2	2	1	2.5.2
9	<pre>#include <stdio.h> int main(void) { printf("%zu %zu", sizeof(3.14), sizeof(3.14f)); return 0; }</pre> <p>Find the output of the above code</p> <ul style="list-style-type: none"> • 8 8 • 8 4 	1	2	2	1	2.5.2

	<ul style="list-style-type: none"> • 4 8 • 4 4 					
10	<pre>#include <stdio.h> void main() { int a=10, b=11, c=13, d; d=(a=c, b+=a, c=a+b+c); printf("%d %d %d %d",d,a,b,c); }</pre> <p>Find the output of the above code</p> <ul style="list-style-type: none"> • 50 13 11 13 • 50 11 24 13 • 50 13 24 50 • 50 11 13 50 	1	2	2	1	2.5.2

Part B (5*2=10 Marks) Answer all questions

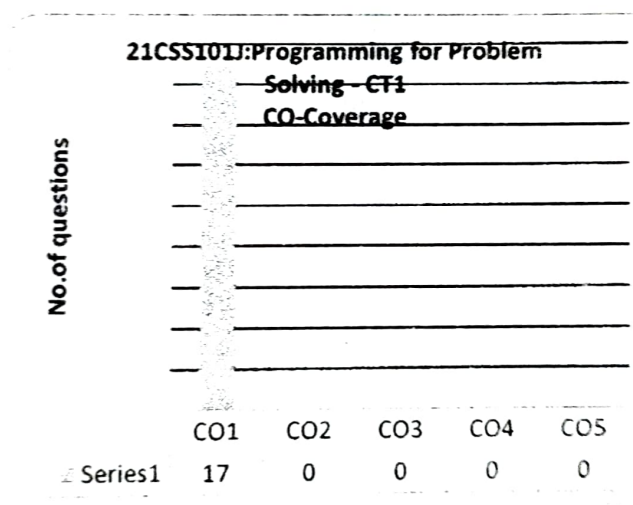
Sl.No	Question	CO	PO	BL	Marks	PI Code
11	Mention the format specifier and list out the basic format specifiers for integer, float, character and string.	1	2	3	2	2.6.3
12	Give the details about pre-processor directives with an example.	1	2	3	2	2.6.3
13	Write the structure of C program with example	1	2	2	2	2.6.3
14	Compare auto and extern storage classes with example.	1	2	3	2	2.6.4
15	Define the scope of the variable with example.	1	2	2	2	2.6.3

Part C(1*5=5 Marks)

Sl.No	Question	CO	PO	BL	Marks	PI Code
16	<p>Athika got a good job in MNC company. She was confused with the salary credited in her account. To verify if the correct amount of HRA and DA provided to her, Athika planned to develop a software that calculates her Gross salary.</p> <p>The Salary policy of Athika's Company is as follows:</p> <p>Basic Pay is Rs.46,540/=</p> <p>HRA is 80% of the basic pay and DA is 40% of basic pay.</p> <p>Can you help Athika in the software development by Printing the Gross salary of athika by adding the</p>	1	2	3	5	2.6.3

	HRA and DA to the basic pay. Round the amount to 2 decimal places					
	(OR)					
17	Kamala borrowed Rs. 26,400 from a bank to buy a scooter at a rate of 15% p.a., compounded yearly. What amount will she pay at the end of 2 years and 4 months to clear the loan? Therefore, could you help her to pay the correct amount by writing Algorithm, Flowchart and C program to find the solution?	1	2	3	5	2.6.3

Course Outcome (CO) and Bloom's level (BL) Coverage in Questions



21CSS1011: Programming for Problem Solving - CT1
BL-Coverage

