

Roll No.



**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF INFORMATION SCIENCE

Test – 2

Sem & AY: Odd Sem 2019-2020

Course Code: BCA101

Course Name: PROBLEM SOLVING USING C

Program & Sem: BCA & I Sem

Date: 19.11.2019

Time: 1.00 P.M. TO 2.00 P.M.

Max Marks: 20

Weightage: 10%

Instructions:

(i) Answer all the questions.

Part A [Memory Recall Questions]

Answer all the Questions. Each question carries one mark. (4Qx1M=4M)

- Which of the following is not a keyword? (C.O.NO.1)[Knowledge]
i) int ii) Switch iii) main iv) float
a) only ii b) both ii and iii c) only iii d) All are keywords
- Which of the following statement is invalid in C Programming? (C.O.NO.1)[Knowledge]
a) The length of the variable name is restricted to 31 characters
b) Enter key is also considered as character
c) C is case sensitive
d) Size of operator is given more priority compared to arithmetic operator
- What is value of the res in the given code fragment
float a=3.5, b=1.5, res;
res=a%b; (C.O.NO.1)[Knowledge]
a) 0.5 b) 1.5 c) The program will have an error d) 3.5
- What is the correct way of variable declaration? (C.O.NO.1)[Knowledge]
a) datatype var1;var2;var3;
b) datatype var1 var2 var3;
c) datatype var1,var2,var3;
d) datatype var1:var2:var3;

Part B [Thought Provoking Questions]

Answer both the Questions. Each question carries three marks. (2Qx3M=6M)

- Explain the Syntax of standard input and output statement with example. (C.O.NO.1)[Knowledge]

6. The Programming Teacher conducts test for 5 students for 20 marks, he wants to know how much the students have understood the subject. If the average marks is less than 10, he plans to repeat the topics otherwise will continue with the next topic. A C application has to develop for the same.
Following are the requirement
- Capture the 5 students marks(m1,m2,m3,m4,m5)
 - Calculate the average marks
 - Check average marks is less than 10
 - If less than 10 display Repeat the topic, otherwise display continue with next topic (C.O.NO.2)[Knowledge]

Part C [Problem Solving Questions]

Answer both the Questions. Each question carries five marks. (2Qx5M=10M)

7. Mr. Naveen wants to arrange his clothes in order, he knows that the number of ways he can arrange the clothes in his cupboard will be the factorial of the count of clothes. Help Mr. Naveen to find out the number of ways that he can arrange the clothes.
Following are the requirements
- Capture the number
 - The clothes should be arranged in starting from 1st clothe , 2nd clothe till the number of clothes
 - Finally display the number of ways of arrangement. (C.O.NO.2)[Comprehension]
8. Mr. Rajesh and his friend's plans for trip for Deepavali Holidays, as there are multiple opinions, they have some choices, depending on the choice they plan to go to that particular place. The choices are given below

Choice	Mall
1	Kerala Trip
2	Hyderabad Film City
3	Kodachadri
Otherwise	Roam in Rajankunte

Following are the requirements

- Read the choice
- Compare the choice with the given number
- Display the Place name appropriately for the choice selected

(C.O.NO.2)[Comprehension]



SCHOOL OF ENGINEERING

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Extract of question distribution [outcome wise & level wise]

Q.NO	C.O.NO (%age of CO)	Unit/Module Number/Unit /Module Title	Memory recall type	Thought provoking type	Problem Solving type	Total Marks
			[Marks allotted]	[Marks allotted]	[Marks allotted]	
		Bloom's Levels	Bloom's Levels			
			K	C	A	
1	1	1	1			1
2	1	1	1			1
3	2	2	1			1
4	2	2	1			1
5	2	1	3			3
6	2	2		3		3
7	2	2		5		5
8	2	2		5		5
	Total Marks		7	13		20

K =Knowledge Level C = Comprehension Level, A = Application Level

Note: While setting all types of questions the general guideline is that about 60%

Of the questions must be such that even a below average students must be able to attempt, About 20% of the questions must be such that only above average students must be able to attempt and finally 20% of the questions must be such that only the bright students must be able to attempt.

I hereby certify that all the questions are set as per the above guidelines. [SUKRUTH GOWDA M A]

Reviewer's Comments:

Annexure- II: Format of Answer Scheme



SCHOOL OF ENGINEERING

SOLUTION

Semester: 1

Course Code: BCA101

Course Name: Problem Solving Using C

Date: 19/11/2019

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Max Marks: 20

Weightage: 10%

Part A

(4Q x1 M =4 Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
1	b) both ii and iii	1Mark	3Min
2	a) The length of the variable name is restricted to 31 characters	1Mark	3Min
3	c) The program will have an error	1Mark	3Min
4	c) datatype var1,var2,var3;	1Mark	3Min

Part B

(2Q x3 M = 6 Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
5	printf("String[format specifier]"[,variable name]); scanf("format specifier",&variablename);	Printf syntax 1M Example 0.5 M Scanf syntax 1M Example 0.5 M	9 Min
6	<pre>#include<stdio.h> Void main() { int m1,m2,m3,m4,m5,avg; scanf("%d%d%d%d%d",&m1,&m2,&m3, &m4,&m5); avg=(m1+m2+m3+m4+m5)/20; if(avg<10) printf("Repeat the topic\n"); else printf("Continue the Next topic\n"); }</pre>	Declaration 0.5Mark Read 0.5 Mark Computation 1M Condition 1Mark	9Min

Part C

(2Q x 5M = 10Marks)

Q No	Solution	Scheme of Marking	Max. Time required for each Question
7	<pre>#include<stdio.h> void main() { int n,fact,i; scanf("%d",&n); fact=1; i=1; while(i<=n) { fact=fact*i; i++; } printf("Fact =%d\n",fact); }</pre>	Declaration 1Mark Reading 1Mark while 3Mark	15 Min
8	<pre>#include<stdio.h> void main() { int choice; scanf("%d",&choice); switch(choice) { case 1: printf("Kerala Trip \n"); break; case 2:printf("Hyderabad Film City\n"); break; case 3: printf("Kodachadri \n"); break; default:printf("Roam in Rajankunte \n"); } }</pre>	Declaration 1Mark Reading 1Mark Switch cases 3Marks	15 Min