midterm examination **FALL** **2020**

Program:	BS CS	Class:	
Course Name:	Fundamentals of Programming	Duration:	
Instructor's Name:	Dr. Aamir Zeb Shaikh	Total Marks:	20
Course Code:		Date:	

IMPORTANT instructions:

- **Students are not allowed to bring cell phones inside the exam room/hall. If they do so then they should make sure that they are switched off. Failure to do so may result in 'F' grade being awarded in the course.**
- Read all the questions carefully first and then ask for clarifications.
- Question paper related queries will not be entertained after 30 minutes for midterm exams and 60 minutes for final exam after the start of the exam.
- Do not write anything on the question paper unless specifically asked to do so by your course instructor.
- Marks of each question are mentioned at the end of each question.
- **Use of unfair means in examinations will lead to F grade in the course.**

Faculty signature Moderator's signature

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Q1. Write a Program in C:

Prints Factorial of a number. Check first if the user is giving a positive input [3]

Q2. Print the following [3]

1
333
55555
7777777
999999999

Q3. Write a C Program to print the following sequences of values [3]

2,4,6,8,10,12,14,16,18,20

Q4. Design a Calculator using User Defined Functions to perform four basic operations: Addition, Subtraction, Multiplication and Division [4]

Q5. Print the Output [2]

```
int main () {

int a=2,b=3,c=2;
 int t,x,y,z;

x=(b>a)&& (c>=a)
 y=(c>=a)|| (b<a);
 t=(b<c) && (c<a);
 z=!t
printf("%d, %d, %d, %d",++x, y, t++,z--);

return 0;

}
```

Q6. Write a Program to calculate grades for a student who appeared in five subjects. The criteria for allocating grades are as follows: [3]
Percentage 80-100 Grade: Distinction
Percentage 60-79 Grade: First Division
Percentage 50-59 Grade: Second Division
Percentage 40-49 Grade: Pass
Otherwise Fail

Q7. Discuss various Relational Operators. Differentiate between Assignment and Equality Operators using C Program [2]