February 09, 2020

EAST WEST UNIVERSITY
Department of Computer Science and Engineering
B.Sc. in Computer Science and Engineering Program
Mid Term II Examination, Spring 2020 Semester

Course:	**CSE 103 Structured Programming, Section-8**
Instructor:	**Maheen Islam, PhD, Associate Professor, CSE Department**
Full Marks:	**30 (20 will be counted for final grading)**
Time:	**1 Hour and 20 Minutes**

Note: There are SIX questions, answer ALL of them. Course Outcome (CO), Cognitive Level and Mark of each question are mentioned at the right margin.

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1. What will be the output of the following program segment? [CO2,C2, Mark: 5]

```
int x[10],k,j;
for(k=0;k<=6;k+=2)
{
  x[k]=3*k;
  x[k+1]=k+2;
}

for(j=0;j<=6;j+=3)
  x[j]=x[j]+x[j+1] +1;

for(k=0;k<=6;++k)
  printf("%d ",x[k]);
```

2. **Write** a C program which input some students' marks into an array and find how many of them scored above average marks. [CO2,C3, Mark: 5]

3. **Write** a C program which inputs **n** integer values and prints the factors of each number. [CO1,C3, Mark: 5]

4. Karim is owner of a small fruit stand. He stores his total monthly income and expense in a notebook and calculates total savings at the end of the year. Write a C program to store karim's 12 month's income in an array **A**, expense in an array **B** and then calculate and store the savings of each month in another array C. Your program should output karim's monthly and total yearly savings. [CO2,C3, Mark: 5]

5. Write a C program to input two matrices and calculate the difference of them. [CO2,C3, Mark: 5]

6. **Write** a C program which input 10 students' marks for 3 class tests into a two-dimensional array and find how many of them scored above average marks in each of the class test. [CO2,C3, Mark: 5]