

CSE 103, Practice

*****Red highlighted problems are not included in the Midterm exam**

1	<p>A one-dimensional array holds 100 integer numbers. Write a C program that determines how many of the numbers belong to following ranges:</p> <ul style="list-style-type: none">i. Less than 0ii. 0 – 100iii. 101 – 200iv. 201 – 300v. 301 – 400vi. 401 and above
2	<p>Write a C program to input the marks of 30 students in Chemistry, Mathematics and Physics (each out of 100) in a two-dimensional array. For each student, find in which subject he/she got the highest marks and display the serial number of the student along with the subject name and marks.</p>
3	<p>What will be the output of the following program segment?</p> <pre>int i,j,x=0; for(i=0;i<5;++i) for(j=0;j<i;++j) { x+=(i+j-1); printf("%d",x); } printf("\nx= %d",x);</pre>
4	<p>What will be the output of the following program segment?</p> <pre>int i,j,k,x=0; for(i=0;i<5;++i) for(j=0;j<i;++j) { k=(i+j-1); if(k%2==0) x+=k; else if(k%3==0) x+=k-2; printf("%d",x); } printf("\nx= %d",x);</pre>

5	Write a program to read the age of 100 persons in an array and count the number of persons in the age group 50 to 60.																				
6	A class of 35 students takes an exam on which scores range from 0 to 100. Write a C program which reads marks for all the students in an array and finds: i. the average score ii. the number of students who failed, i.e., scored below 40 and iii. the number of students with perfect papers, i.e. scored 100.																				
7	There are four electric power generators whose generations in three consecutive hours are as follows: <table><tr><th>Generator No.</th><th>1</th><th>2</th><th>3</th></tr><tr><td>1</td><td>120.5</td><td>130.4</td><td>132.5</td></tr><tr><td>2</td><td>200.0</td><td>10.5</td><td>215.6</td></tr><tr><td>3</td><td>60.5</td><td>62.3</td><td>65.8</td></tr><tr><td>4</td><td>90.8</td><td>93.5</td><td>98.6</td></tr></table> <p>Total generation cost is \$68034. Using two-dimensional array, write a C program that reads all those generation data and cost and then calculates</p> i. Total generation at each hour. ii. Per unit generation cost.	Generator No.	1	2	3	1	120.5	130.4	132.5	2	200.0	10.5	215.6	3	60.5	62.3	65.8	4	90.8	93.5	98.6
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