**CIS 111 Midterm**

**Summer 2019.**

**120 points. 14 questions. 2 bonus questions @ 20 points.**

**Full Name………………………………………………………………………………**

**UO ID…………………………………..………………………………………………**

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| 1. **This following program has an error, what is it? [5 pts]**   let $greet, \_greet, #greet, @result;  $greet = prompt (“Enter the first greet message”);  \_greet= prompt (“Enter the second greet message”);  #greet= prompt (“Enter the second greet message”);  @result = $greet + ”\n” + \_greet + “\n” + #greet;  alert (@result); |
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| 1. **Using a for-loop, reverse the string str =** “**Albatross is white**”**. [10 pts]** |
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| 1. **what the following code will print: [10 pts]**   let s, t, u, v, w, z, x, i;  s=”abc”;  t=”$”;  u=”$”;  v=”$”;  w=”$”;  z=”$”;  x=2;  i=1;  while (i < s.length) {  t=” “+ i;  u=i\*2;  if ( s.includes (‘c’) )  v=’#’;  z=z+t+u+v+w;  i++;  }  console.log (z); |
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| 1. **what the following code will print? [10 pts]**   a=8.0;  b=4.0;  b+=4.0;  c=1.0;  c\*=2;  a/=2.0;  d=10.0;  d-=1;  console.log(a-b);  console.log(a+b);  console.log(a/b);  console.log(a\*b);  console.log(a%b);  console.log(a/b==c);  console.log(a!=c);  console.log(a>c);  console.log(b>=a);  console.log (d<a);  console.log (!(c<=d)); |
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| 1. **Write a program to find the maximum element of an array.**   **Use any loop to traverse each element of the following array and use just one “if” statement to get the maximum number 9 as output. [10 pts]**  let maxnum=0;  let lst= [1,2,3,4,5,1,2,6,7,3,9, 0, 1]; |
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| 1. **What the following code will print when the user enters 5 for a and 6 for b? [5 pts]**   let a = prompt (“Enter the first number: “);  let b = prompt (“Enter the second number: “);  let sum = a + b;  console.log (“the sum of “ + a + “ and “ + b + “ is: “ + sum ); |
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| 1. **Write a program to filter out all the alphabetic letters in the following string. Your output will be “2 !!!”. [10 pts]**   let str=”2 stringifies!!!”; |
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| 1. **Write a program to calculate the area of a circle that has a radius 12. The formula for the area of a circle is pi\*r^2. [5 pts]** |
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| 1. **What the following code will print?** **[5pts]**   let num = -10, result=””;  result=num+””;  if (num >= 0) {  if (num == 0)  result=result + “ is Zero “;  else {  if (num % 2 == 0)  result=result + “ is Even “;  else if ((num % 3) == 0)  result=result + “ is divisible by 3 “;  else  result=result + “ is not divisible by 2 and 3 “;  }  result=result + “ and Positive number “;  } else {  if (num < 0)  {  if (num % 2 == 1)  result=result + “ is an odd “;  else  result=result + “ is an even “;  }  result=result + “ and negative number “;  }  console.log(result); |
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| 1. **Write the output of the following code. [10 pts]**   let num, i;  num = 10;  i=0;  while (i<num){  console.log (“num”+”\*”+i);  i++;  } |
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| 1. **Write the output of the following code. [10 pts]**   let i, x=10;  for(i=1;i<x+1;i++)  if (x%i==0)  console.log(i); |
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| 1. **what the following code will print: [10 pts]**   let i, x, r=0;  x=10;  i=0;  do{  i++;  r+=i;  i++;  }  while (i<x+1)  console.log(r); |
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| 1. **Write the while and do-while conversion of the following for-loop code: [10 pts]**   let i, x, r=0;  x=10;  for(i=1;i<x+1;i++){  i++;  if (x%i==1)  r+=i;  }  console.log(r); |
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| 1. **Analyze the following two codes and then write the corresponding outputs:** **[10 pts]**  |  |  | | --- | --- | | let i,x;  x=12;  for(i=1; i<x; i++){  if (x%i==2){  break;  }  console.log(i);  }  alert (“Oh no, I am broke!”); | let i, x;  x=12;  for(i=1;i<x;i++){  if (x%i==0){  continue;  }  console.log(i);  }  alert (“Ooof, I survived or did I?”); | |
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| 1. **What is printed on the console after the following programs are executed? [Bonus points-10]** 2. let str = "sandstone finder";   let str2= str.substr(5, 4);  console.log(str2); |
| 1. let count=0, number=4;   let i=number;  while (i>2) {  count=count+1;  i--;  }  console.log(count); |
| 1. let total=0, number=10;   for (let i=0; i<=number; i+=5) {  total+=i;  }  console.log(i); |
| 1. What is the range of possible values of result after the following code is executed?   let result = Math.floor((Math.random() \* 10) + 1);  console.log(result); |
| 1. let string1 = "Hi there";   let string2 = string1.indexOf('t') + string1.charAt(5);  console.log(string2); |
| 1. **[Bonus points-10]**   a) What loop is designed to be used if you always want the statements in the loop to execute at least once, give an example code? |
| b) What is printed here?  let n=5;  console.log(n % 2 == 1); |
| c) What javascript method can be used to allow the application user to enter data from the keyboard. |
| d) The variable num2 will have what value after the third line is executed?  let num1 = “10”;  let num2 = 11;  num2 = num2 + num1; |
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| e) The variable result will have what value after the third line?  let value1 = 99;  let value2 = 25;  let result = “value1” + “value2”; |
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