CIS 111 FINAL.01 18F. 150 pts. 30 questions @ 5 pts. each. 1 extra credit.
Mark A for TRUE and B for FALSE

1. T F The following declaration generates an error.

```
let snake_case = 32;
```

2. T F The formula for the volume of a cylinder is Vol = $\pi * r^2 * h$

This function correctly calculates the volume of a cylinder:

```
let VOC = function(r, h){
  return Math.PI * r**2 * h;
};
```

3. T F Suppose a web page has a two `input` elements, and the content in the second `input` element is currently, `Avast!` After this code is executed, what will the content in the second `input` element be?

```
let content = document.querySelectorAll("input")[1].value;
content = `${content} Ya lubber! `;
document.querySelectorAll("input")[1].value = content;
```

a) Ya lubber! Avast! b) Avast! Ya lubber! c) Avast! d) Ya lubber!

4. What is printed on the console? a) 1 b) 2 c) 4 d) 8 e) 16

```
let n = 1, result = 1;

while (n < 3) {
   result = Math.pow(n, 2);
   ++n;
}

console.log(result);
```

5. T F The following prints `S. Snape`

```
let prof = {fname: "Severus", lname: "Snape", classes: ["potions", "dark arts"]};
console.log(prof.fname.charAt(0) + ". " + prof["lname"]);
```

6. T F This example prints 8 on the console.

```
let s = "The life of a repo man is always intense";
let arr = s.split(' ');
console.log(arr[1].length);
```

7. T F After execution of the following statements, both `a` and `b` have the value `21`.

```
let a = 20, b = 10;
a++;
b = a + b;
```

8. T F Suppose CIS 111 student Susan Queue's DuckID is *susanq*. The following is the correct URL for her 111 website on the uoregon.edu server:

```
https://pages.uoregon.edu/susanq/public_html/111/
```

9. T F The following prints `Eggs, Spam, Milk, and Spam`

```
let faves = "Donuts,Milk,Eggs,Spam";
let foods = faves.split(",");
console.log(foods[2] + ", " + foods[3] + ", " + foods[1] + ", and " + foods[3]);
```

10. What best describes what value this function returns?

a) the sum of the digits in s
b) the number of digits in s
c) the number of vowels in s
d) all of the vowels in s

```
let WTH = (s) => {
   let k = 0;
   for (let i = 0; i < s.length; ++i)
      if(/[aeiouy]/i.test(s[i]) == true)
          ++k;
    return k;
}

console.log(WTH("7Squids"));
```

11. T F `Fugu` (Mac) or `WinSCP` (Windows) is used for both the *second* step and the *fourth* step in the CIS 111 WebDev Workflow.

12. Which button is *not* part of the Project 5 string machines?

a) isPrime b) Count Vowels c) Count Digits d) Swap e) Concat

13. T F The following displays `42` if the user enters `2` at the prompt.

```
let n = prompt("enter a number");
console.log(4 + n);
```

14. T F A *perfect* number is a number whose proper divisors sum to the number itself (e.g., 6). The following function correctly recognizes perfect numbers

```
let isPerfect = (n) => {
  return SOPD(n) == n;
};
```

15. What value is returned by this function call? `SOPD(8)`

a) 15 b) 1 c) 6 d) 7 e) 8

16. T F The following if statement has at least one syntax error.

```
if(n % 2 == 0)
     console.log("true");
     return true;
else
     return false;
```

17. T F The following prints `j = 3 k = 2`

```
let j = 2, k = 3, temp;
temp = j;
j = k;
k = temp;
console.log(`j = ${j} k = ${k}`);
```

18. T F `boolean` is one of JavaScript's basic types.

19. T F Both of the alerts display `Enter your name`

```
let promptForName = "Enter your name";
alert("promptForName");
alert("Enter your name");
```

20. The value of `7 % 5` is _____.

a) 5 b) 2 c) 4 d) .4 e) none of the above

21. T F This example prints `true` when `d` is 7

```
console.log((d == 0) || (d == 7));
```

22. T F Given this HTML element: `<p>Bilbo Baggins</p>`
This following statement prints `Bilbo Baggins`

```
console.log(document.querySelector("p").innerHTML);
```

23. T F This example prints `Hit!`

```
let search = (s, ch) => {
   if(s.indexOf(ch) == -1)
      return "Miss!";
   else
      return "Hit!"
};

console.log(search("Echo", "E"));
```

24. Select the `for` loop that does the same thing as the `while`.

```
let j = 0, ans = "";
while( j <= 3 ){
   ans = ans + j + " ";
   j++ ;
};
console.log(ans);
```

A)
```
let ans = "";
for ( var j = 1; j < 3; j++ ){
   ans = ans + j + " ";
}
console.log(ans);
```

B)
```
let ans = "";
for ( var j = 1; j <= 3; j++ ){
   ans = ans + j + " ";
}
console.log(ans);
```

C)
```
let ans = "";
for (var j = 1; j < 4; j++ ){
   ans = ans + j + " ";
}
console.log(ans);
```

D)
```
let ans = "";
for ( var j = 0; j <= 3; j++ ){
   ans = ans + j + " ";
}
console.log(ans);
```

25. T F The following prints, `Get more heliopaths`

```
let heliopath = 7, nargle = 12, acromantula = 3;

if (heliopath < nargle && heliopath < acromantula)
   console.log("Get more heliopaths");
else
   console.log("Heliopaths Rule!");
```

26. What is printed on the console? a) 2 b) 3 c) 5 d) 7 e) Error

```
let primes = [2, 3, 5, 7];
let k = primes[1];
console.log(primes[k]);
```

27. T F The following example prints the line shown on the left.

`${txt1} ${txt2}`	`let txt1 = "Argus";`
	`let txt2 = "Filch";`
	`let txt3 = "${txt1} ${txt2}";`
	`console.log(txt3);`

28. Which is the correct way to write a condition that recognizes an alphabetic letter in JavaScript?

a) `"a" <= ch && ch <= "z"` b) `"a" <= ch <= "z"`

29. What does the following print? a) true b) false

```
let isPhredGoing = false, isIantheGoing = true;
let isRokyGoing;

if (!isPhredGoing && isIantheGoing)
  isRokyGoing = true;
else
  isRokyGoing = false;

console.log(isRokyGoing);
```

30. What value is printed on the console? a) FrostedFlakes b) Weetabix c) Milk d) Eggs

```
let groceries = ["Milk", "Eggs", "FrostedFlakes"];
let item = groceries.pop();
groceries.push("Weetabix");
console.log(groceries[2]);
```

31. Select the condition that causes the loop to print 0 1 2 3 4

A) `j < 5` B) `j < 6` C) `j >= 0` D) `j < 4`

```
let result = "";
for (let j = 0; _____________; j++ ){
   result = result + j + " ";
}
console.log(result);
```