

1. 1 F =?

Which is the denary conversion for the above hexadecimal?

A) 30

B) 31

C) 32

D) 33

2. What is the maximum denary value of the 8-bit binary?

A) 255

B) 225

C) 100

D) 8

- 3. What is the difference between an IP address and a MAC address?**
- A) An IP address provides a device's location on the internet, and a MAC identifies the device connected to the internet.
 - B) An IP address gives the internet speed of the computer, and a MAC shows an email address.
 - C) An IP address gives the cable type of the network, and a MAC offers the computer's location.
 - D) IP and MAC show only the location of the server computers.

4. “Communication between client computers and web servers is done by HTTP. It is a set of rules that must be obeyed when transferring files across the internet.”

What is the meaning of the “s” in HTTPs?

- A) HTTP speed
- B) HTTP semantic
- C) HTTP over secure
- D) HTTP over high speed

5.



In a spreadsheet, what is the function of this icon?

- A) delete a sheet
- B) align text in a cell
- C) clear cells of contents or formats
- D) merge cells

6. The CPU carries out and repeats instructions continuously, one after another, billions of times a second. This is known as
- A) Fetch-Decode-Execute Cycle
 - B) The Copy-Paste Cycle
 - C) The Get-Post Cycle
 - D) Turn on/off Cycle

7. `<a .....="https://www.google.com">Go to Google</a>`

Which completes the `<a>` tag to set a link to Google?

- A) ref
- B) src
- C) href
- D) link

8.

```
<!DOCTYPE html>
<html>
<head>
<style>
body {background-color: powderblue;}
h1 {color: blue;}
p {color: red;}
</style>
</head>
<body>

<h1>This is a heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

This code has HTML and CSS tags. Find and locate the CSS tag.

- A) <head>...</head>
- B) <body>...</body>
- C) <style>...</style>
- D) <h1>...</h1>

9. Which property is used to change the background color in CSS?

- A) background-color
- B) back-color
- C) color-background
- D) background

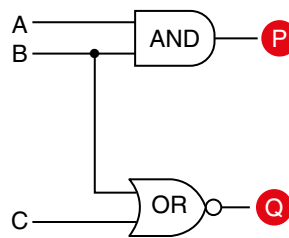
10.

1. _____	1) _____	1. _____
a. _____	a) _____	1.1. _____
b. _____	b) _____	1.2. _____
i. _____	i) _____	1.2.1. _____
2. _____	2) _____	2. _____

What are these features in Google Sheets?

- A) Bulleted list
- B) Numbered list
- C) Checklist
- D) Header and Footer

11.



If the inputs are $A=1$, $B=0$ and $C=1$, what will be P and Q's outputs?

- A) $P=0$, $Q=1$
- B) $P=0$, $Q=0$
- C) $P=1$, $Q=0$
- D) $P=1$, $Q=1$

12.



What is the correct expression for line 7 in the above code?

- A) $a=a-1$
- B) $a=a-2$
- C) $a=a+2$
- D) $a=a+1$

13. "There are several uses of the hexadecimal number system in computer technologies."

Which is NOT an example of using hexadecimal?

- A) HTML / CSS Colour Codes
- B) MAC Addresses
- C) Assembly Code and Memory Dumps
- D) Email addresses

14. Which cable type uses one single wire that allows a signal to be sent at a time?
- A) Serial - Simplex
 - B) Parallel - Simplex
 - C) Parallel - Duplex
 - D) Simple - Direct

15. In an even parity scheme, what would be the correct parity bit for the binary string 1101 0001 ?
- A) 1101 0001 1
 - B) 1 1101 0001
 - C) 1101 0001
 - D) 1101 0001 0

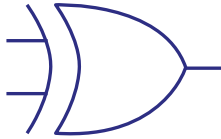
- 16.** The CPU consists of the control unit (CU) and arithmetic logic unit (ALU) as well as cache memory. What is the function of the ALU?
- A) Carries out the decoding of instructions.
 - B) Controls the flow of data within the CPU.
 - C) Executes instructions.
 - D) Carries out all of the arithmetic and logical operations.

17. What is the name of the cycle the CPUs follow?

- A) Iteration cycle
- B) Fetch-Execute cycle
- C) Fine-Emitting cycle
- D) Fast-Dynamic Cycle

- 18.** Binary is a base-2 number system invented by Gottfried Leibniz that's made up of only two numbers or digits: and This numbering system is the basis for all binary code, which is used to write digital data such as the computer processor instructions used every day.
- A) 0 - 9
 - B) 1 - 2
 - C) 0 - 1
 - D) 1 - 1

19.



Which logic gate does this symbol belong to?

- A) AND
- B) XOR
- C) OR
- D) NOT

20. What is metadata?

- A) Data about data such as colour depth, file size, file format etc.
- B) Data
- C) Database
- D) Data about a folder

21. What are the two types of compression?

- A) Lossy and lossless compression
- B) Lost and lossless compression
- C) Low and high compression
- D) Fast and Few compression

- 22.** Based on the descriptions below, identify the correct transmission type:
“Data can be transmitted in both directions but only one direction at a time”

- A) Simplex
- B) Half-Duplex
- C) Full-Duplex
- D) Serial

23.

```
1 x = 0
2 while (x < 100):
3     x+=2
4 print(x)
```

What is the output of the code above?

A) 99

B) 100

C) 101

D) 120

24.

```
1 x = 0
2 a = 0
3 b = -1
4 if a > 0:
5     if b < 0:
6         x = x + 2
7     elif a > 2:
8         x = x + 3
9 else:
10     x = x + 5
11 print(x)
```

What is the output of the code above?

A) 1

B) 3

C) 5

D) 7

25. The code causes an error or does not work as expected. Which correction will make the hero attack enemies properly?



- A) Replace if enemies: with while enemies:
- B) Change hero.attack(enemy) to hero.attack("enemy")
- C) Move enemy = hero.findNearestEnemy() outside the loop
- D) Replace if enemies: with if enemy:

26. One line in the code is unnecessary. Which line should be removed for the code to run properly?



- A) enemy1 = "Kratt"
- B) while True:
- C) hero.attack(enemy3)
- D) enemy3 = "Ursa"

27. Correct the code in lines 1 and 4 so that the program runs properly.



- A) enemy2 = hero.findEnemy(2)
- B) enemy2 = hero.findNearestEnemies()
- C) enemy2 = findNearestEnemy(2)
- D) enemy2 = hero.findNearestEnemy()

28. Which line has an error that would prevent the code from running correctly?



- A) `game.spawnPlayerXY("knight"; 5, 8)`
- B) `game.addMoveGoalXY(10, 18)`
- C) `game.addMoveGoalXY(10, 38)`
- D) `game.addMoveGoalXY(48, 41)`

29. Write code on line 2 to create a hero in the game so that it can attack enemies.



- A) game.createPlayerXY("champion", 20, 20)
- B) game.create.PlayerXY("champion": 20, 20)
- C) game.spawnPlayerXY("champion", 20, 20)
- D) game.buildPlayerXY("champion", 20, 20)

30. Move to all the X marks. There are fire traps on the X marks that hurt the player!
Spawn a potion-small object to heal the player.



- A) `game.spawn("potion-small", 30, 39)`
- B) `game.spawnXY(potion-small, 30, 39)`
- C) `game.spawnXY("potion-small", 30, 39)`
- D) `game.spawnXY("potion-small", x=30, y=39)`

ANSWERS

1. B
2. A
3. A
4. C
5. D
6. A
7. C
8. C
9. A
10. B
11. A
12. D
13. D
14. A
15. D
16. D
17. B
18. C
19. B
20. A
21. A
22. B
23. B
24. C
25. D
26. B
27. D
28. A
29. C
30. C