

# Question Design

Level 1

Mathematics

$5+6$

$7-8$

$2*3$

$2/3$ ..... and so on

Add, subtract, multiply and divide within ten

Scientific knowledge

Which medium allows sound to travel the fastest?

A Air

B Water

C Steel

D Vacuum

**Answer: C. Steel** (Sound travels fastest in solids and cannot travel in a vacuum.)

Which of the following substances is acidic?

- A. Saltwater
- B. Vinegar
- C. Baking soda solution
- D. Pure water

**Answer: B. Vinegar** (Vinegar contains acetic acid, making it acidic.)

**What causes iron (Fe) to rust?**

- A. Exposure to oxygen and water
- B. High temperature
- C. Sunlight
- D. Contact with other metals

**Answer: A. Exposure to oxygen and water** (Iron oxidizes in the presence of water and oxygen, forming rust.)

**Which of the following is NOT a mammal?**

- A. Dolphin
- B. Penguin
- C. Kangaroo
- D. Wolf

**Answer: B. Penguin** (Penguins are birds, not mammals.)

**What are the main products of photosynthesis?**

- A. Oxygen and glucose
- B. Oxygen and carbon dioxide
- C. Carbon dioxide and glucose
- D. Water and carbon dioxide

Answer: A. Oxygen and glucose (Photosynthesis produces glucose and releases oxygen.)

## Computer Science

What is the main function of a computer's Central Processing Unit (CPU)?

- A) Store data
- B) Process information and execute instructions
- C) Display images
- D) Connect to the internet

Answer: B) Process information and execute instructions

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The binary system used by computers consists of which two numbers?

- A) 0 and 2
- B) 1 and 2
- C) 0 and 1
- D) 2 and 3

Answer: C) 0 and 1

Which part of the computer is responsible for displaying images?

- A) CPU
- B) Monitor
- C) Keyboard
- D) Mouse

Answer: B) Monitor

What is the function of the keyboard?

- A) Display images
- B) Play sounds
- C) Input data into the computer
- D) Connect to the internet

Answer: C) Input data into the computer

Level 2

Mathematics

$$1+21$$

$$1-32$$

$$4*23$$

$$21/7..... \text{ and so on}$$

Add, subtract, multiply and add, subtract, multiply and subtract one  
and two digits

## Scientific knowledge

Why does the Sun appear yellow?

- A. Because the Sun's internal temperature is low
- B. Because Earth's atmosphere scatters blue light, making the Sun look yellow
- C. Because the Sun only emits yellow light
- D. Because nuclear fusion produces yellow substances

Answer: B. Because Earth's atmosphere scatters blue light, making the Sun look yellow (Rayleigh scattering causes this effect.)

What is the chemical formula of water?

- A.  $\text{H}_2\text{O}_2$
- B.  $\text{H}_2\text{O}$
- C.  $\text{O}_2\text{H}$
- D.  $\text{HO}_2$

Answer: B.  $\text{H}_2\text{O}$  (Water consists of two hydrogen atoms and one oxygen atom.)

What causes iron (Fe) to rust?

- A. Exposure to oxygen and water
- B. High temperature
- C. Sunlight
- D. Contact with other metals

Answer: A. Exposure to oxygen and water (Iron oxidizes in the presence of water and oxygen, forming rust.)

Which element makes up the highest percentage of the human body?

- A. Hydrogen
- B. Oxygen
- C. Carbon
- D. Calcium

Answer: B. Oxygen (Oxygen makes up about 65% of the human body.)

Approximately how old is the Earth?

- A. 460 million years

B. 4.6 billion years

C. 46 billion years

D. 46 million years

Answer: B. 4.6 billion years (Scientific studies estimate Earth's age at about 4.6 billion years.)

Computer Science

Which of these should you NEVER share online?

A) Your favorite color

B) Your home address

C) A funny meme

D) The name of your favorite game

Answer: B) Your home address

What does "https" in a website address mean?

A) The website is safe and uses encryption

B) The website is only for games



C) The website is fake

D) The website will give you a virus

Answer: A) The website is safe and uses encryption

What should you do if a stranger messages you online?

A) Reply and give them your information

B) Ignore or block them

C) Tell them your home address

D) Click on any links they send you

Answer: B) Ignore or block them

15. If a light switch is OFF and you flip it ON, what happens?

A) The light turns off

B) The light turns on

C) The computer shuts down

D) The internet stops working

✓ Answer: B) The light turns on

Level 3

Mathematics

$22+23$

$24-14$

$11*23$

$141/11.....$

Add, subtract, multiply, and divide between two digits

Scientific knowledge

What are the main products of photosynthesis?

- A. Oxygen and glucose
- B. Oxygen and carbon dioxide
- C. Carbon dioxide and glucose
- D. Water and carbon dioxide

Answer: A. Oxygen and glucose (Photosynthesis produces glucose and releases oxygen.)

What is the longest river in the world?

- A. Amazon River
- B. Yangtze River
- C. Nile River
- D. Mississippi River

Answer: C. Nile River (The Nile River is about 6,650 km long, making it the longest river.)

In which direction does the Sun usually rise?

A. North

B. South

C. East

D. West

Answer: C. East (The Sun typically rises in the east and sets in the west.)

What is the unit of electric current?

A. Volt (V)

B. Ampere (A)

C. Ohm ( $\Omega$ )

D. Watt (W)

Answer: B. Ampere (A) (Ampere is the SI unit of electric current.)

Which part of a plant is mainly responsible for photosynthesis?

A. Roots

B. Stem

C. Leaves

D. Flowers

Answer: C. Leaves (Leaves contain chlorophyll, which is essential for photosynthesis.)

Which planet is known as the "Red Planet"?

A. Venus

B. Jupiter

C. Mars

D. Saturn

Answer: C. Mars (Mars appears red due to iron oxide (rust) on its surface.)

Computer Science

If a light switch is OFF and you flip it ON, what happens?

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C) The computer shuts down

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Answer: B) The light turns on

What is an algorithm?

- A) A type of computer
- B) A sequence of steps to solve a problem
- C) A computer virus
- D) A type of music

Answer: B) A sequence of steps to solve a problem

Which of the following is a correct variable name in Python?

- A) 2name
- B) my\_name
- C) my-name
- D) my name

Answer: B) my\_name (Variable names cannot start with a number,

contain spaces, or use -)

What do robots use Artificial Intelligence (AI) for?

- A) Only storing data
- B) Only following simple commands
- C) Analyzing data and making decisions
- D) Only playing music

Answer: C) Analyzing data and making decisions

What is a computer virus?

- A) A harmful program that can damage a computer
- B) A computer's firewall
- C) A part of the computer system
- D) A computer's operating system

Answer: A) A harmful program that can damage a computer