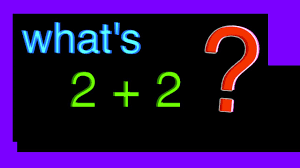
& Maths

1-MC. What is 2 + 2?

Image= Yes



Positive marks= 4

Negative marks= 1

A) 3

B) 4

C) 5

D) 6

Answer: B

2-NU. Solve for x: 2x = 10

Image= No

Positive marks= 4

Negative marks= 1

Answer: 5

3-MC. What is the derivative of sin(x)?

Image= No

Positive marks= 4

Negative marks= 1

A) cos(x)

B) -cos(x)

C) sin(x)

D) -sin(x)

Answer: A

4-NU. Solve: What is the value of √144?

Image= No

Positive marks= 4

Negative marks= 1

Answer: 12

5-MMC. Which of the following numbers are prime?

Image= No

Positive marks= 4

Negative marks= 1

A) 11

B) 15

C) 17

D) 21

Answer: A, C

6-MC. What is the integral of 1/x dx?

Image= No

Positive marks= 4

Negative marks= 1

A) ln|x| + C

B) x

C) 1/x

D) x²

Answer: A

7-MMC. Which of the following are even numbers?

Image= No

Positive marks= 4

Negative marks= 1

A) 2

B) 3

C) 6

D) 7

Answer: A, C

8-NU. What is the square of 13?

Image= No

Positive marks= 4

Negative marks= 1

Answer: 169

9-MC. What is the value of sin(90°)?

Image= No

Positive marks= 4

Negative marks= 1

A) 0

B) 1

C) -1

D) Undefined

Answer: B

10-MMC. Which of these are solutions of x² = 4?

Image= No

Positive marks= 4

Negative marks= 1

A) 2

B) -2

C) 0

D) 4

Answer: A, B

& Physics

11-MC. What is the unit of force?

Image= No

Positive marks= 4

Negative marks= 1

A) Joule

B) Newton

C) Pascal

D) Watt

Answer: B

12-MC. What is the acceleration due to gravity on Earth?

Image= No

Positive marks= 4

Negative marks= 1

A) 9.8 m/s²

B) 8.9 m/s²

C) 10.8 m/s²

D) 7.5 m/s²

Answer: A

13-NU. A body moves with uniform velocity of 5 m/s for 10 s. What is the distance covered?

Image= No

Positive marks= 4

Negative marks= 1

Answer: 50

14-MMC. Which of the following are vector quantities?

Image= No

Positive marks= 4

Negative marks= 1

A) Velocity

B) Distance

C) Force

D) Speed

Answer: A, C

15-MC. What is the SI unit of work?

Image= No

Positive marks= 4

Negative marks= 1

A) Joule

B) Watt

C) Newton

D) Erg

Answer: A

16-MMC. Which of these are fundamental quantities?

Image= No

Positive marks= 4

Negative marks= 1

A) Length

B) Mass

C) Speed

D) Time

Answer: A, B, D

17-NU. If a = 2 m/s² and t = 3 s, find velocity assuming initial velocity is 0.

Image= No

Positive marks= 4

Negative marks= 1

Answer: 6

18-MC. What does a speed-time graph represent when it’s a straight line?

Image= No

Positive marks= 4

Negative marks= 1

A) Uniform acceleration

B) Non-uniform acceleration

C) Zero acceleration

D) No motion

Answer: A

19-MMC. Which of the following are units of energy?

Image= No

Positive marks= 4

Negative marks= 1

A) Joule

B) Calorie

C) Newton

D) Watt-hour

Answer: A, B, D

20-NU. What is the frequency of a wave with time period 0.01 s?

Image= No

Positive marks= 4

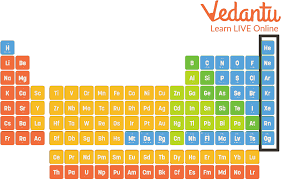
Negative marks= 1

Answer: 100

& Chemistry

21-MMC. Which of the following are noble gases?

Image= Yes



Positive marks= 4

Negative marks= 1

A) Oxygen

B) Helium

C) Argon

D) Nitrogen

Answer: B, C

22-MC. What is the atomic number of Carbon?

Image= No

Positive marks= 4

Negative marks= 1

A) 6

B) 12

C) 14

D) 8

Answer: A

23-NU. Calculate the number of moles in 44g of CO₂. (Molar mass of CO₂ = 44 g/mol)

Image= No

Positive marks= 4

Negative marks= 1

Answer: 1

24-MMC. Which of the following are diatomic molecules?

Image= No

Positive marks= 4

Negative marks= 1

A) O₂

B) N₂

C) H₂O

D) H₂

Answer: A, B, D

25-MC. Which of the following is an alkali metal?

Image= No

Positive marks= 4

Negative marks= 1

A) Calcium

B) Potassium

C) Iron

D) Aluminum

Answer: B

26-NU. How many protons does Sodium (Na) have?

Image= No

Positive marks= 4

Negative marks= 1

Answer: 11

27-MMC. Which of the following are acids?

Image= No

Positive marks= 4

Negative marks= 1

A) HCl

B) NaOH

C) H₂SO₄

D) KOH

Answer: A, C

28-MC. What is the chemical formula of water?

Image= No

Positive marks= 4

Negative marks= 1

A) H2O

B) CO2

C) O2

D) NaCl

Answer: A

29-NU. If a solution has pH = 3, is it acidic or basic?

Image= No

Positive marks= 4

Negative marks= 1

Answer: Acidic

30-MMC. Which of the following are indicators?

Image= No

Positive marks= 4

Negative marks= 1

A) Litmus

B) Phenolphthalein

C) NaCl

D) Methyl orange

Answer: A, B, D