SAKSHAM
LEARN TOGETHER, GROW FOREVER

Junoon
SAKSHAM TALENT SEARCH EXAM

JEE | NEET | GUJCET | BOARDS (11TH-12TH) | FOUNDATION (8TH-10TH)

| MAX TIME: 40 MIN | TEST PAPER | M.M-80 | CODE- |

Instructions: Each question carries 4 marks and are only one correct answer type questions.

CLASS – X

SCIENCE

1. A person takes time t to go once around a circular path of diameter $2R$. The speed (v) of this person would be
   (a) $\frac{t}{2\pi R}$
   (b) $\frac{2\pi R}{t}$
   (c) $\frac{\pi R^2}{t}$
   (d) $2\pi Rt$

2. A truck and a car are moving with velocity v towards each other. They collide head on and stops after some time. If the time of collision is 1 sec, which vehicle will have maximum change in momentum?
   (a) Car
   (b) Truck
   (c) Both will have same
   (d) None of these.

3. Recoil velocity of gun is
   (a) equal to velocity of bullet
   (b) much greater than velocity of bullet
   (c) much smaller than velocity of bullet
   (d) cannot say

4. Acceleration due to gravity g and the mean density of the earth ρ are related by the relation where G is the gravitational constant and R_e is the radius of the earth.
   (a) $\left(\frac{g}{G}\right)\frac{4\pi}{3}R_e^3 = \rho$
   (b) $\frac{\left(\frac{g}{G}\right)}{\frac{4\pi}{3}R_e} = \rho$
   (c) $\frac{g}{G}\left(\frac{4\pi}{3}\right)R_e^2 = \rho$
   (d) $\frac{\left(\frac{g}{G}\right)}{\left(\frac{4\pi}{3}R_e^3\right)} = \rho$

5. The atomic mass of sodium is 23. The number of moles in 46g of sodium is _____.
   (a) 4
   (b) 2
   (c) 0
   (d) ½

6. Which isotope is used in the nuclear power plants to generate electricity?
   (a) Uranium 235
   (b) Iodine 131
   (c) Cobalt 60
   (d) Uranium 238

7. The continuous zig-zag movement of colloidal particles in a dispersion medium is called
   (a) Dispersion
   (b) Tyndall effect
   (c) Brownian movement
   (d) Oscillation

8. A form of matter has no fixed shape but it has a fixed volume. An example of this form of matter is
   (a) Krypton
   (b) Kerosene
   (c) Carbon steel
   (d) Carbon dioxide

9. Nucleus is separated from cytoplasm by
   (a) nuclear membrane
   (b) nucleoplasm
   (c) organs
   (d) cell membrane

10. Which of the following tissues has dead cells?
    (a) Parenchyma
    (b) Sclerenchyma
    (c) Collenchyma
    (d) Epithelial tissue

11. Identify the group among the following, which contains all bacterial diseases.
    (a) Typhoid, Tuberculosis, Cholera
    (b) Malaria, Anthrax, Typhoid
    (c) Kala-azar, Influenza, Tuberculosis
    (d) Tuberculosis, Anthrax, Dengue

12. Which one is an oil yielding plant among the following?
    (a) Lentil
    (b) Sunflower
    (c) Cauliflower
    (d) Hibiscus

YOU ARE THE CREATOR OF YOUR OWN DESTINY. BEST OF LUCK! BE SAKSHAM!

📞 9054460449   📍 4TH FLOOR, NARAYAN VISHWA, NR. D'MART, BHAIKAKA STATUE, VV. NAGAR

MATHEMATICS

13. The product of a rational and irrational number is
    - (a) rational
    - (b) irrational
    - (c) both of above
    - (d) none of these

14. Euclid's division lemma states that for two positive integers a and b, there exist unique integer q and r such that a = bq + r, where r must satisfy
    - (a) $a < r < b$
    - (b) $0 < r \le b$
    - (c) $1 < r < b$
    - (d) $0 \le r < b$

15. How many points will the graph of $x^2 + 2x + 1$ will cut the x-axis?
    - (a) 3
    - (b) 2
    - (c) 1
    - (d) 0

16. If the graph of a polynomial cuts the x-axis at 3 points, then the polynomial is
    - (a) Linear
    - (b) Quadratic
    - (c) Cubic
    - (d) Biquadratic

MENTAL ABILITY

17. What is the next number in the series: 2, 5, 10, 17, _?
    - (a) 22
    - (b) 24
    - (c) 26
    - (d) 27

18. A clock shows 2 PM. If the minute hand is pointing towards East, in which direction will the hour hand point?
    - (a) North
    - (b) East
    - (c) South
    - (d) West

19. Which one of the numbers does not belong in the following series: 8, 27, 64, 100, 125?
    - (a) 8
    - (b) 27
    - (c) 64
    - (d) 100

20. If 'P' denotes 'multiplied by', 'Q' denotes 'added to', 'R' denotes 'subtracted from', and 'S' denotes 'divided by', then 12 Q 8 P 6 R 2 S 3 = _____?
    - (a) 10
    - (b) 12
    - (c) 14
    - (d) 16