

# SAFE HANDS, AKOLA

## SAMPLE PAPER FOR ENTRANCE TEST

Students of Std. 8<sup>th</sup> and going to Std. 9<sup>th</sup>

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01. If the density of iron is nearly  $8000 \text{ kg/m}^3$  then its relative density is (density of water is  $1 \text{ g/cm}^3$ )
- (A) 8 (B) 8000  
(C)  $1/8000$  (D) none
02. Static force of friction is an example of
- (A) contact force (B) inertia of rest  
(C) static electricity (D) all of above
03. A cube of side 3m is placed on a table and density of material of cube is  $4 \text{ kg/m}^3$  then the pressure due to cube on table in  $\text{N/m}^2$  is ( $g = 10 \text{ m/s}^2$ )
- (A) 120 (B) 12  
(C)  $4/3$  (D)  $3/4$
04. Speed of light is  $3 \times 10^5 \text{ km/s}$  and of sound is  $300 \text{ km/hr}$ . A place A is  $300000000 \text{ m}$  away from B a person at B observes a light of canon ball at A then after how much amount of time he will listen a sound of canon.
- (A) 999hr (B) 1000hr  
(C) 3600000 sec (D) 3599999 sec
05. 1 hertz is equal to
- (a) 1 vibration per minute (b) 10 vibrations per minute  
(c) 60 vibrations per minute (d) none of above
06. Which of the following is not a metal?
- (A) copper (B) sulphur  
(C) aluminium (D) iron

07. The first model of atom is –

- (A) Kanad (B) Dalton  
(C) Thompson (D) Bohr

08.  ${}_{36}^{26}X$  An element indicated as will

- (A) 10 neutrons (B) 36 protons  
(C) 62 electrons (D) be impossible element

09. Hydrogen is not used as fuel because –

- (A) when it burns it produces oxides of nitrogen and sulphur causing acid rain  
(B) when it burns it produces carbon monoxide which is poisonous  
(C) we don't know the technique to control its spontaneous burning  
(D) it is burnt in Sun and all stars

10. Atomic weight of sulphur is -----

- (A) 16 (B) 12  
(C) 24 (D) 32

11. I am a eukaryote, microscopic, and unicellular. What kingdom do I belong to?

- (A) Animalia (B) Fungi  
(C) Plantae (D) Protista

12. Which of the following statements is incorrect?

- (a) A person of 'O' blood group has anti 'A' and anti 'B' antibodies in his blood plasma.  
(b) A person of 'B' blood group can't donate blood to a person of 'A' blood group.  
(c) Blood group is designated on the basis of the presence of antibodies in the blood plasma.  
(d) A person of AB blood group is universal recipient.

13. The left side of the heart is responsible for pumping -

- (a) Oxygenated blood to the body
- (b) Oxygenated blood to the lungs
- (c) Deoxygenated blood to the body
- (d) Deoxygenated blood to the lungs

14. Which statement is wrong for nucleus in cell?

- (A) Nuclear membrane is porous
- (B) Chromosomes in nucleus carry genes
- (C) Fluid inside the nucleus is called protoplasm
- (D) The nucleus acts as control centre of activities of cell

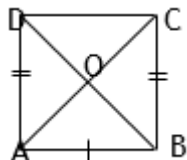
15. He was an American Ecologist. In 1969 he divided living organisms into 5 groups. He was

- (A) Kopland
- (B) Chatton
- (C) Whittaker
- (D) Carl Woese

16. The length and breadth of a rectangle are in the ratio 4:3. If the diagonal measures 25cm then the Perimeter of the rectangle is

- (A) 56cm
- (B) 60cm
- (C) 70 cm
- (D) 80 cm

17. In a given rectangle ABCD, diagonals AC and BD intersect at O. If  $\angle COD = 120^\circ$ . What is the value of  $\angle OBA$ ?



- (A)  $90^\circ$
- (B)  $60^\circ$
- (C)  $30^\circ$
- (D)  $45^\circ$

18. The value of  $\sqrt{\frac{(0.03)^2+(0.21)^2+(0.065)^2}{(0.003)^2+(0.021)^2+(0.0065)^2}}$  is

- (A) 0.1 (B) 10  
(C)  $10^2$  (D)  $10^3$

19. The square root of  $(7 + 3\sqrt{5})(7 - 3\sqrt{5})$  is

- (A)  $\sqrt{5}$  (B) 2  
(C) 4 (D)  $3\sqrt{5}$

20. Simplify:

$$(3a-4b)(9a^2+12ab+16b^2)+(4a-3b)(16a^2+12ab+9b^2)$$

- (A)  $91a^3+91b^3$  (B) 0  
(C)  $91a^3-91b^3$  (D) 1

21. If the area is circle 616 sq.cm, then its diameter in cm is

- (A) 7 (B) 14  
(C) 21 (D) 28

22. A number is increased by 20% and then it is decreased by 20%. Find the net increase or decrease per cent.

- (A) 4 % Increase (B) 4 % Decrease  
(C) No change (D) 10 % Increase

23. If the cost price of 10 shirts is equal to the selling price of 8 shirts, then which of the following is true for the transaction?

- (A) Profit of 25% (B) Loss of 25%  
(C) Profit of 20% (D) Loss of 20%

24. The cube of 0.3 is

- (A) 0.027 (B) 27  
(C) 2.7 (D) 0.27

25. A train 540 m long is running with a speed of 72 km/hr. In what time (in sec) will it pass a tunnel 160 m long?

- (A) 8 (B) 18  
(C) 27 (D) 35

### ANSWER KEY

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