

AMITY INSTITUTE

FOR COMPETITIVE EXAMINATIONS

Delhi Centres: • E-25, Defence Colony, New Delhi - 110024. Ph.: 011-24336143/44, 24331000-02.
West Delhi: • B-1/632, Main Nazafgarh Road, Janakpuri, New Delhi - 110058. Ph.: 011-25573111/12/13/14.
Noida Centre • Amity Campus, Sector-44, Noida - 201303. Ph.: 0120-2431839, 2431842.

AMITY FIVE YEARS CONCEPTUAL PROGRAMME

AFYCP WORKSHEET

“An Insight ”

CLASS (VII)

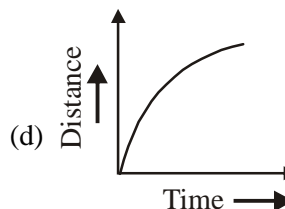
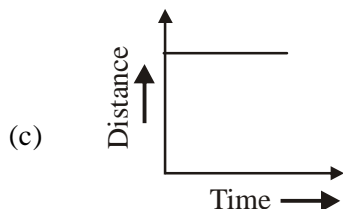
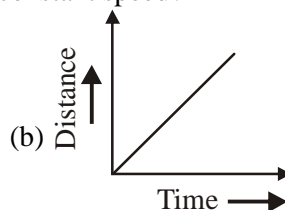
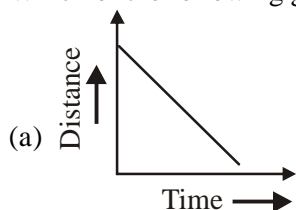
Time: 1 hr

Maximum Marks: (4 × 30 = 120)

LEVEL-I

(2 Question Physics, 2 Chemistry, 4 Maths, 2 Bio)

1. Which of the following graphs does NOT represent constant speed?



2. Match Column-I with Column-II and select the correct option from the codes given below :

Column-I

- (A) Wind carrying water
- (B) Dark funnel shaped cloud
- (C) Moving air
- (D) Develop in India very frequently

Column-II

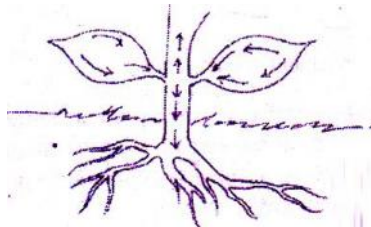
- (i) Thunderstorms
- (ii) Tornado
- (iii) Monsoon
- (iv) Wind

- (a) (A) - (iii), (B) - (ii), (C) - (iv), (D) - (i)
- (b) (A) - (ii), (B) - (iv), (C) - (i), (D) - (iii)
- (c) (A) - (iv), (B) - (ii), (C) - (iii), (D) - (i)
- (d) (A) - (i), (B) - (ii), (C) - (iii), (D) - (iv)

3. Air is a/an
 (a) Compound (b) Element (c) Mixture (d) Electrolyte
4. Which of the following is a non-metal that remains liquid at room temperature?
 (a) Bromine (b) Chlorine (c) Helium (d) Phosphorous
5. If $3(x + 2) = 9$ and $4(y - 2) = 12$, then $x + y$ is equal to
 (a) 5 (b) 6 (c) 7 (d) 8
6. If $a = \left(1 - \frac{1}{2} + \frac{1}{3}\right) \times 3$, then a expressed in decimal is
 (a) 2.3 (b) 2.4 (c) 2.5 (d) 1.5
7. The value of $(-4) \div 2 \times (-5)$ is
 (a) $\frac{2}{5}$ (b) 10 (c) -10 (d) $-\frac{1}{5}$
8. The value of x that satisfies the equation $-3(x + 5) = 2(x - 2)$ is
 (a) $\frac{11}{3}$ (b) $-\frac{11}{3}$ (c) $-\frac{11}{5}$ (d) $\frac{11}{5}$
9. Which of the following statements is incorrect for the given food item?



- (i) The ingredients used to prepare this food are obtained from both plant and animal sources.
 (ii) The major nutrients in this food are carbohydrates and proteins.
 (iii) This food is also a source of vitamin C
 (iv) The ingredient sourced from plants is actually a seed
- (a) (i) and (ii) (b) (iii) only (c) (ii) and (iv) (d) None of these
10. The arrows in the given diagram show the movement of _____.



- (a) Air in the plant (b) Food to all parts of the plant
 (c) Water to all parts of the plant (d) Carbon dioxide to all parts of the plant

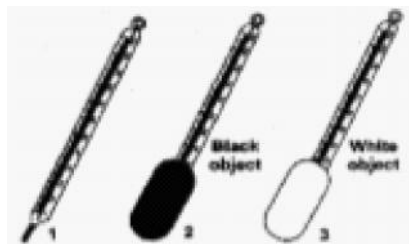
LEVEL-II

(2 Question Physics, 2 Chemistry, 3 Maths, 1 Bio and 2 Mental Aptitude)

Read and answer the following questions :-

Black colour is the best absorber of heat.

1. Rohan wants to test whether a white object or a black object would heat up faster in the Sun. The picture shows you this experiment. These thermometers were left out in the Sun for 30 minutes.



Which of the following statements is true?

- (a) Thermometer 1 reads the same as thermometer 3
- (b) Thermometer 2 shows a higher temperature than thermometer 3
- (c) Thermometer 3 shows higher temperature than thermometer 1
- (d) Thermometer 1 reads the same as thermometer 2

Read and answer the following questions :-

Distance travelled = speed x time. Care should be taken to follow the same unit

2. Sheela takes 15 minutes from her house to reach school on her bicycle with a speed of 2 m/s. The distance between her house and school is
- (a) 1.8 km
 - (b) 3 km
 - (c) 1 km
 - (d) 2.5 km

Read and answer the following questions :-

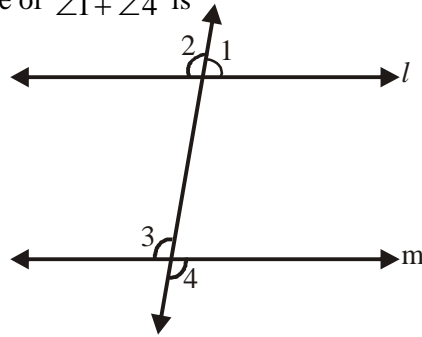
Breaking down compounds. A compound can only be broken down into simpler substances by chemical methods. Breaking down of compounds into their constituents normally involves heating, exposure to light or passing an electric current through them.

The process of using electric current to break down compounds is known as electrolysis. For example, electrolysis can be used to separate water into hydrogen and oxygen.

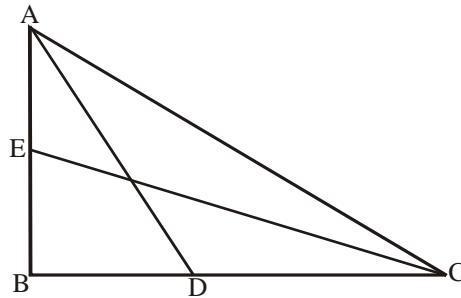
3. Which of the following substances can be separated into simpler substances only by chemical means?
- (a) Sodium
 - (b) Water
 - (c) Salt water
 - (d) Gold
4. Water is a compound because
- (a) it exists as a solid, a liquid or a gas
 - (b) it contains hydrogen and oxygen
 - (c) it contains two different elements joined by chemical bonds
 - (d) it cannot be split up into simpler substances by chemical means

5. If two parallel lines are cut by a transversal, then each pair of corresponding angles is equal and we also know that the angles forming a linear pair are supplementary. Using the above information solve the question given below :

In the given figure $l \parallel m$. The value of $\angle 1 + \angle 4$ is

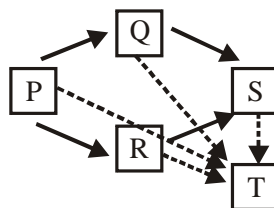


- (a) 90° (b) 180° (c) 270° (d) 145°
6. Pythagoras theorem states that in a right triangle, the square of hypotenuse is equal to the sum of squares of its other two sides. Using the above theorem, solve the following question.



In the given figure, $\triangle ABC$ is a right angled triangle, right angled at B. D and E are the mid-points of sides BC and AB respectively. If $AD^2 + EC^2 = K AC^2$, where K is any real number, then the value of K is

- (a) $\frac{1}{2}$ (b) $\frac{4}{5}$ (c) 2 (d) $\frac{5}{4}$
7. If the mean of 5, 2, 3, 4 and x is 3, then the value of x is
- (a) 1 (b) 2 (c) 3 (d) 4
8. The term of the series : A2Z, B3Y, C5X, _____ is
- (a) D6W (b) D8W (c) D7W (d) D9W
9. How many digits are used to write, the numbers from 1 to 30?
- (a) 51 (c) 71 (c) 31 (d) 41
10. Study the food web shown below :



How is organism P in the food web different from the organisms Q, R, S and T?

- (a) It causes decomposition (b) It feeds on plants
(c) It feeds on animals (d) It can photosynthesize

$$\therefore 99 \times 97 = 9603$$

Find the value of a in 99×99

$$98 - 2$$

$$\underline{99 - 1}$$

$$\underline{19a / 02}$$

So $98 \times 99 = 9a02$. The value of a is

- (a) 8 (b) 9 (c) 7 (d) 6

8 Read and answer the following questions :-

P is found abundantly in cod liver oil and its important for visual efficiency Q is sourced from amla, tomato and citrus fruits and its deficiency may cause wounds to take longer time for healing R is formed in our body in presence of sunlight and its deficiency in toddlers may cause deficiency of legs.

Now select the incorrect option regarding this :

- (a) P can be found in spunch but not R
(b) In absence of R our body will show calcium deficiency even if it is abundant in our food
(c) Q is also caled H-complex as many of its varieties are available
(d) P cannot be dissolved in water

9. Which is the first artificial satellite to orbit Earth?

10. Choose the correct meaning of the idiom from the four options :

To spill the beans

- (a) To eat clumsily
(b) To reveal a secret
(c) To get exhausted
(d) To fight

