

AMITY INSTITUTE

FOR COMPETITIVE EXAMINATIONS

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AMITY FIVE YEARS CONCEPTUAL PROGRAMME

AFYCP WORKSHEET

“An Insight ”

CLASS (VI)

Time: 1 hr

Maximum Marks: (4 × 30 = 120)

LEVEL-I

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

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

Column-I

- (A) Car moving on a straight road
- (B) Revolution of Moon around the earth
- (C) Rotation of the Earth around its axis
- (D) Movement of a pendulum

Column-II

- (i) Periodic Motion
- (ii) Rectilinear Motion
- (iii) Circular Motion
- (iv) Rotational Motion

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

2. Which of the following is the unit of measuring the distance of stars from the Earth?

- (a) Nautical miles
- (b) Light year
- (c) Meter
- (d) Kilometer

3. Which of the following is a solution?

- (a) Soil
- (b) Rocks
- (c) Lemonade
- (d) Noodle soup

4. The property of being drawn into wire is called :

- (a) malleability
- (b) conductivity
- (c) combustibility
- (d) ductility

5. The value of $(-1633) \times 99 + (-1633) \times 1$ is

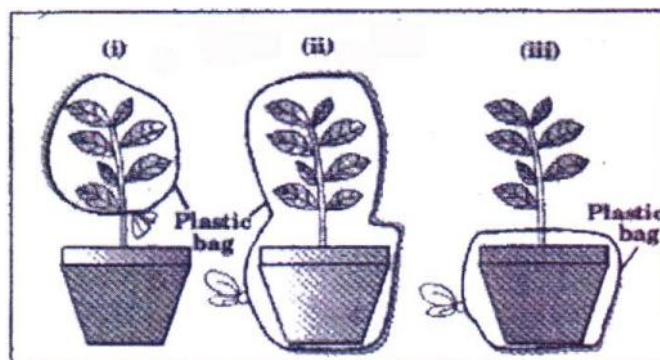
- (a) -16330
- (b) -163300
- (c) 163300
- (d) 16330

6. Which of the following cases is correct?
- (a) All the 3 angles of a triangle can be obtuse angles
 - (b) All the 3 angles of a triangle can be right angles
 - (c) All the 3 angles of a triangle can be acute angles
 - (d) Two angles of a triangle can be right angles
7. If a, b and c are natural numbers, then which of the following results is true?
- (a) $a + (b + c) = (a + b) + c$
 - (b) $a \times (b + c) = a \times b - a \times c$
 - (c) $a \div b = b \div a$
 - (d) $a + b = b - a$
8. Which of the following is a reflex angle?
- (a) One right angle
 - (b) Two right angles
 - (c) Three right angles
 - (d) Zero angle
9. Shreya was grouping plants. She decided to draw a circle, a square, a triangle or leave a blank around the plants depending on their life span.



Around which of these plants should Shreya draw a circle?

- (a) Banana
 - (b) Papaya
 - (c) Neem
 - (d) China rose
10. Which of the following illustrations correctly demonstrates the process of transpiration in plants?



- (a) Only (i)
- (b) Only (ii)
- (c) Only (iii)
- (d) Only (ii) and (iii)

LEVEL-II

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

Read and answer the following questions :-

Umbra is the dark portion of shadow which doesn't receive any light at all. Penumbra is a portion of shadow which receives some light.

1. Fill in the blanks with most appropriate option.

Although a number of objects, such as kites, birds, aeroplanes move in space, but their shadow is not seen on the earth. This is due to the reason that the _____ (i) _____ the region of complete _____ (ii) _____ is not able to reach the earth. The region of partial _____ (iii) _____, that is the _____ (iv) _____ reaching the earth is too large and too faint to be visible to us.

	(i)	(ii)	(iii)	(iv)
(P)	Penumbra	Darkness	Brightness	Umbra
(Q)	Penumbra	Brightness	Darkness	Umbra
(R)	Umbra	Darkness	Brightness	Penumbra
(S)	Umbra	Brightness	Darkness	Penumbra

(a) P

(b) Q

(c) R

(d) s

Read and answer the following questions :-

2. The image formed by a plane mirror is laterally inverted. The mirror image of 'SMART' will be

(a) TЯAMƧ

(b) TAMSР

(c) SMART

(d) SMRAT

Read and answer the following questions :-

The electrical conductivity of a material is a measure of how readily electricity flows through the material. Those that do not allow electricity to flow through them easily are called insulators. Metals are good electrical conductors while non-metals with the exception of carbon (graphite) are good electrical insulators.

3. Which of the following is a good conductor of heat?

(a) Silver

(b) Paper

(c) Wood

(d) Plastic

4. Which of the following is a bad conductor of electricity?

(a) Copper

(b) Steel

(c) Impure water

(d) Air

5. The number of diagonals in a pentagon is

(a) 4

(b) 5

(c) 3

(d) 2

6. Perimeter of a figure is equal to the sum of all its sides. A hexagon is a closed figure having 6 sides. A hexagon is said to be regular if all its sides are of equal length. The perimeter of a regular hexagon of side 15 cm is

(a) 45 cm

(b) 22.5 cm

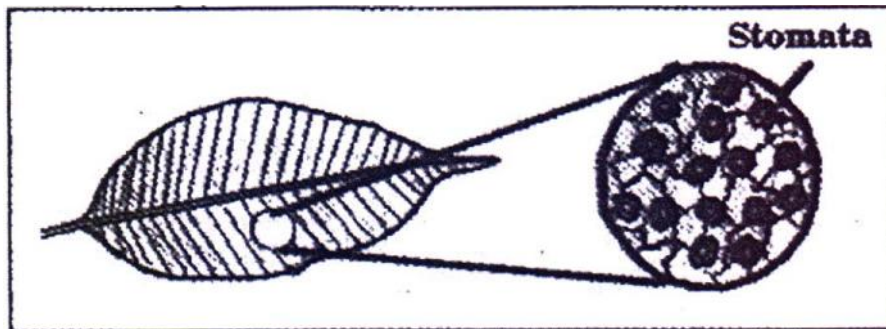
(c) 90 cm

(d) 180 cm

7. The Roman Number representing 2016 is
 (a) DMXIV (b) MMXIV (c) MMXVI (d) MDDDVXI
8. Find the missing number in

4	5	6
2	3	7
1	8	3
21	98	?

- (a) 94 (b) 76 (c) 16 (d) 102
9. Choose the odd one out : Jute, Cotton, Plastic, Silk
 (a) Jute (b) Cotton (c) Plastic (d) silk
10. The diagram shows stomata, which are usually found on the underside of leaves.



Which of the following is NOT a function performed by them?

- (a) Trap sunlight to make food for the plant
 (b) Take in carbon dioxide and give out oxygen
 (c) Take in oxygen and give out carbon dioxide
 (d) Allow excess water to evaporate from the leaves

LEVEL-III (Read, Understand and Apply)

Image lies as far behind the mirror as object is in front of it.

1. Anju stands 6 m in front of a large vertical mirror. If the mirror is moved 2 m nearer to her, how far will image move towards her?
 (a) 4 m (b) 8 m (c) 2 m (d) 6 m
2. Lemonade is prepared by mixing sugar and lemon juice in water. You wish to add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar in water? In which case it would be possible to dissolve more sugar?
3. The complement of x is $90^\circ - x$. The supplement of y is $180^\circ - y$. The supplement of complement of 45° is
 (a) 125° (b) 135° (c) 145° (d) 175°

4. The smallest number formed by 6, 7, 4, 3 during all the digits is 3467 and the largest number formed by all these digits is 7643. Using this concept. Find the difference between the largest and smallest numbers formed by using the digits 9, 4, 7, 8 once is
- (a) 4058 (b) 4755 (c) 6075 (d) 5085

5. Find the missing term, so that the relation between the first two words is some as the relation between the last two words

Admire : Praise :: Ban : ?

- (a) Prohibition (b) Destroy (c) Finish (d) Cravel
6. Choose the odd one out in

7, 215, 124, 344

- (a) 7 (b) 215 (c) 124 (d) 344
7. In Vedic Mathematics, a single digit is multiplied by order single digit in the following manner. e.g. 8×5 is done as

$$\begin{array}{r} 8 - 2 \\ \times \underline{5 - 5} \\ \hline 8 + 5 = 13 / \underline{0} \end{array} \quad \begin{array}{l} (10 - 8 = 2) \\ (10 - 5 = 5) \\ = (3 + 1)0 = 40 \end{array}$$

Here $2 \times 5 = 10$, tens digit number 1 is added to the unit digit of the sum $8 + 5 = 13$. So $3 + 1 = 4$

Hence $8 \times 5 = 40$.

$$\begin{array}{r} 7 - 3 \\ \times \underline{9 - 1} \\ \hline 1 \text{ a} / \underline{3} \end{array}$$

$\therefore 7 \times 9 = 63$

We get 1 a from 7 and 9 by

- (a) $7 + 9$ (b) $7 - 9$ (c) $9 \div 7$ (d) $9 - 7$
8. The diagram shows a green leaf of a potted plant that is exposed to sunlight.



Which of the following rows correctly represents the arrows P, Q, R and S during photosynthesis?

	(P)	(Q)	(R)	(S)
(a)	Sugar	Water	Oxygen	Carbondioxide
(b)	Sugar	Water	Carbondioxide	Oxygen
(c)	Water	Carbondioxide	Oxygen	Water
(d)	Water	Sugar	Carbondioxide	Oxygen

9. Who was the first President of USA?

10. Choose the correct synonym of the word from the four options :

(a) Need

(b) Threw

(c) Found

(d) Got

