

Total Questions : 50

Time : 1 hr.

PATTERN & MARKING SCHEME

Section	(1) Logical Reasoning	(2) Science	(3) Achievers Section
No. of Questions	10	35	5
Marks per Ques.	1	1	3

SYLLABUS**Section – 1 :** Verbal and Non-Verbal Reasoning.

Section – 2 : Exploring the Investigative World of Science, The Invisible Living World : Beyond Our Naked Eyes , Health : The Ultimate Treasure, Particulate Nature of Matter, Elements, Compounds and Mixtures, How Nature Works in Harmony, Exploring Forces, Solute, Solvent and Solutions, Electricity : Magnetic and Heating Effects, Light : Mirrors and Lenses, Our Home : Earth, a Unique Life Sustaining Planet, Pressure, Winds, Storms and Cyclones, Keeping Time with the Skies.

Section – 3 : Higher Order Thinking Questions - Syllabus as per Section – 2.**LOGICAL REASONING**

1. Find the missing number, if same rule is followed in all the three figures.

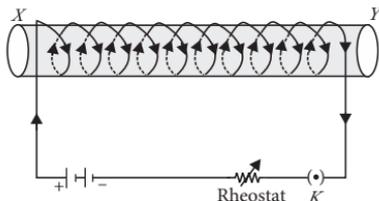
7	12	5	16	8	12
21		20		?	

- (A) 40 (B) 32 (C) 24 (D) 16
2. In a playground, a girl walks 15 m towards West. She then turns left and walks 20 m. She then turns left again and walks 10 m. Finally, she turns left and walks 15 m. How far is she now from the starting point?
(A) 5 m (B) $5\sqrt{2}$ m (C) 8 m (D) $2\sqrt{5}$ m
3. How many such numbers are there in the given arrangement each of which is immediately preceded by an odd number but not immediately followed by a prime number?
2, 3, 5, 7, 8, 9, 3, 6, 2, 4, 7, 6, 9, 8, 3, 5, 2, 2, 9
(A) One (B) Two (C) Three (D) More than three

SCIENCE

4. Which change would generally increase the solubility of a solid in water?
(A) Lowering temperature (B) Adding more solid
(C) Heating the solution (D) Decreasing pressure
5. Read the given statements and select the correct option.
Statement 1 : Kinetic friction is independent of the area of contact and depends on the material.
Statement 2 : The limiting value of static friction depends on the area of contact and is independent of material.

- (A) Both statements 1 and 2 are true and statement 2 is the correct explanation of statement 1.
 (B) Both statements 1 and 2 are true but statement 2 is not the correct explanation of statement 1.
 (C) Statement 1 is true but statement 2 is false.
 (D) Both statements 1 and 2 are false.
6. A soft iron bar is enclosed by a coil of insulated copper wire as shown in figure. When the plug of the key is closed, the face Y of the iron bar marked as



- (A) N-pole
 (B) S-pole
 (C) N-pole if current is large
 (D) S-pole if current is small.
7. *Gelidium* is a _____ algae.
 (A) Red
 (B) Green
 (C) Brown
 (D) Purple
8. Which of the following diseases are caused by bacteria?
 (i) Measles
 (ii) Tuberculosis
 (iii) Tetanus
 (iv) Malaria
 (v) Mumps
 (vi) Jaundice
 (A) (ii) and (iii) only
 (B) (i), (iv) and (vi) only
 (C) (iii) and (v) only
 (D) (ii), (iv) and (v) only

ACHIEVERS SECTION

9. Two chemical species X and Y combine together to form a product P which contains both the properties of X and Y .
 $X + Y \rightarrow P$
 X and Y cannot be broken down into simpler substances by simple chemical reactions. Which of the following concerning the species X , Y and P are correct?
 (i) P is a compound.
 (ii) X and Y are compounds.
 (iii) X and Y are elements.
 (iv) P has a fixed composition.
 (A) (i), (ii) and (iii) only
 (B) (i), (ii) and (iv) only
 (C) (ii), (iii) and (iv) only
 (D) (i), (iii) and (iv) only
10. Which of the following statements is/are correct?
 (i) Growing the same crop repeatedly in a particular area is known as polyculture.
 (ii) UNESCO has declared the Sundarbans a World Heritage Site in 2002.
 (iii) In parasitism, one organism benefits while the other is harmed or adversely affected.
 (iv) Organisms that cannot produce their own food and depend on other organisms for their food are called heterotrophs.
 (A) (ii) only
 (B) (iii) and (iv) only
 (C) (i), (ii) and (iii) only
 (D) (ii) and (iv) only

ANSWER KEY

1. (C) 2. (B) 3. (D) 4. (C) 5. (C) 6. (A) 7. (A) 8. (A) 9. (D) 10. (B)