

Home Assignment
Class- 11th
Sub- Mathematics

Solve the following questions:

Q. 1: Write the following sets in the roster form.

(a) $A = \{x \mid x \text{ is a positive integer less than } 10 \text{ and } 2x - 1 \text{ is an odd number}\}$

(b) $C = \{x : x^2 + 7x - 8 = 0, x \in \mathbb{R}\}$

(c) $A = \{x : x \text{ is an integer and } -3 \leq x < 7\}$

(d) $B = \{x : x \text{ is a natural number less than } 6\}$

Q. 2: Let $U = \{1, 2, 3, 4, 5, 6\}$, $A = \{2, 3\}$ and $B = \{3, 4, 5\}$.

Find A' , B' , $A' \cap B'$, $A \cup B$ and hence show that $(A \cup B)' = A' \cap B'$.

Q. 3: Let $U = \{1, 2, 3, 4, 5, 6, 7\}$, $A = \{2, 4, 6\}$, $B = \{3, 5\}$ and $C = \{1, 2, 4, 7\}$, find

(i) $A' \cup (B \cap C')$

(ii) $(B - A) \cup (A - C)$

Q. 4: Let $U = \{x : x \in \mathbb{N}, x \leq 9\}$; $A = \{x : x \text{ is an even number, } 0 < x < 10\}$; $B = \{2, 3, 5, 7\}$. Write the set $(A \cup B)'$.

Q. 5: Given that $N = \{1, 2, 3, \dots, 100\}$, then

(i) Write the subset A of N , whose elements are odd numbers.

(ii) Write the subset B of N , whose elements are represented by $x + 2$, where $x \in N$.

Q. 6: In a class of 60 students, 23 play hockey, 15 play basketball, 20 play cricket and 7 play hockey and basketball, 5 play cricket and basketball, 4 play hockey and cricket, 15 do not play any of the three games. Find

(i) How many play hockey, basketball and cricket

(ii) How many play hockey but not cricket

(iii) How many play hockey and cricket but not basketball

Q. 7 If $X = \{a, b, c, d\}$ and $Y = \{f, b, d, g\}$, find: (i) $X - Y$ (ii) $Y - X$ (iii) $X \cap Y$

Q. 8 Define the following with examples:

- a) Power sets
- b) Disjoint sets
- c) Universal sets
- d) Null sets

AMBITION ACADEMY VARANASI
HOME ASSIGNMENT
SUB- ENGLISH
CLASS-XI

Read the passage carefully and answer the following questions-

- 1. A bookshop is not something you find in every gall or mohalla these days. Books, which were once a permanent accompaniment for youngsters in their formative years, are fading out of their list of engagements.**
- 2. Ask any youngster which is the latest book he has read, and he will be baffled. Apart from a few consistent readers, others just befool themselves with a bookseller's name or lament the curriculum load for justifying themselves, like this seventeen-year-old school-goer who says, 'I just read my Physics book.'**
- 3. Television has been blamed for this calamitous situation, which is producing square-faced people and a bookless society. Furthermore, today's children are under pressure to be smart and popular and to succeed on a social level. Parties, dancing and hanging out at different places begin early. Moreover, computers, video games, the Internet, swimming lessons, cricket and a youngster's passion for an hour-long tete-a-tete on the telephone with friends eat up all their leisure time.**
- 4. A child who is constantly under pressure to live up to his parents' expectations, which are at times unreasonable, does not like to throw himself into another set of books after the laborious school work, unless he comes from a family of**

readers where the engrossing work of Shakespeare and Dickens are just a matter of pulling them out from the shelves.

5. Many parents also believe that today's children have become more aware and demand logical reasoning for everything. They can no longer be fooled by fairy tales or animal stories, as they have not seen any fairies or animals except for those old and tired ones in the city zoo. This has made them more interested in movies or TV serials than a turtle talking to a rabbit or a frog changing into a prince.

6. But a visit to the capital's leading bookstores presents a contrasting picture of youngsters' reading habits. These bookshops claim they are doing healthy business and have many regular buyers from this age group.

7. Though the works of Shakespeare, Charles Dickens, Jane Austen and Mark Twain no longer interest teenagers, bestsellers from Daniel Steele, Sidney Sheldon and Jeffery Archer are on the list of all reading teens. Self-help books, such as those on personality development or relationship management, are also picked up by many of them.

8. Mystery books like Nancy Drew and Hardy Boys are popular with kids and Mills and Boons and other romance novels with their fairly predictable formula with teenage girls. For parents of children below ten, volumes of Panchatantra Stories, Amar Chitra Katha and other bedtime stories are worthy purchases as these teach the child what is wrong in their own special way. What seems to be the case is that parents have surrendered to others what was their most precious right—that of making their children what they should become. With the old techniques of child

rearing losing ground, modern parents must consciously spend time with their children. Taste and enthusiasm for literature can be communicated artfully to children by reading bedtime stories to them, encouraging them to play historical characters and giving books as birthday gifts.

9. The family reading which was once popular in the West could well be adopted here. Reading aloud the works of great men by parents to their children not only forms a warm bond between them but also attracts young minds to the world of books which gives them a chance to explore the sea of life.

Word-Meanings

Para 1. 1. accompaniment: companion 2. Formative (adjective): having a lasting influence on somebody's character

Para 2. 1. Baffled (verb): confounded 2. Consistent (adjective): regular 3. Lament (verb): to regret

Para 3. 1. Calamitous (adjective): troublesome 2. tete-a-tete (noun): intimate talk

Para 4. 1. Laborious (adjective): requiring excessive work and effort 2. Engrossing (adjective): absorbing

Para 5. 1. Logical (adjective): reasonable

Para 7. 1. teenagers (noun): a person aged between 13 and 19 years

Para 8. 1. Predictable (adjective): that which can be foretold 2. Artfully (adverb): tactfully

Para 9. 1. Bond (noun): link 2. Explore (verb): search

Questions:

1. Choose the correct option:

(a) What is blamed the most for taking teenagers away from good books?

- (i) Cinema (ii) Television (iii) Dance shows
(iv) Music programmes**

(b) Which of the following is a mystery book?

- (i) Macbeth (ii) Panchatantra
(iii) Nancy Drew (iv) Amar Chitra Katha**

(c) Whose book is popular among teenagers?

- (i) Jane Austen (ii) Mark Twain
(iii) Shakespeare (iv) Sidney Sheldon**

(d) What was popular in the West?

- (i) Story reading (ii) Family reading
(iii) Reading ancient stories (iv) Writing stories**

(e) Parents have surrendered their most ‘precious right’ which is:

- (i) loving the child (ii) making the most of their child
(iii) rearing their child (iv) planning their child’s future**

(f) Reading aloud helps parents..... their children

- (i) explain the difficulties of life to (ii) develop a closer relationship with
(iii) explain the future (iv) Both (ii) & (iii)**

2. Answer the questions briefly:

(a) Why do some children ignore books?

(b) Why are some children fond of reading books?

(c) What should parents do to inculcate the love for books in their children?

(d) How do teenagers pass their leisure time?

(e) Find the word from the passage which means ‘absorbing’ (para 4)?

(f) What is the general belief about youngsters' reading habits? How is it countered?

Ambition Academy

Class- 11th

Sub- chemistry

Question1. Two friends Riya and Pooja are discussing that which is better for expressing the concentration of solution: molality or molarity?

Pooja told Riya that molality is considered better for expressing the concentration as compare two molarity unexplained the reason as well.

1. What would be the explanation of Pooja?

2. What are the units of Molarity and molality?

3. What is the difference between molality and molarity?

Question2. Guided by Heisenberg's uncertainty principle and De- broglie's theory of dual nature of particles Schrodinger proposed wave equation to get proper II solution of this equation integer called Quantum numbers were required.

1. Name the quantum numbers.

2. Write the general values assigned to the Quantum numbers.

3. Mention the values associated with wave equation.

Home assignment

Class- 11th

Sub- physics

Power of lens is a measure of the the ability e e of the lens to courage the rays of light falling on it. Quantitatively power of lens=reciprocal of focal length of lens.i.e. $P=1/f$.

If a lens happens to diverse Ray of light falling on it, its power is said to be negative. Thus power of convex lens is positive and power of concave lens is negative.

If P_1 and P_2 you are powers of two lenses held in contact with each other, the power of combination is $P=P_1+P_2$, note that P_1, P_2 are to be added with proper sign.

Read the passage and answer the following questions:

1. What is the SI unit of power?

2. Focal length of concave lens is 20 CM. what is the power?

3. What lessons of life do you learn from the relation $P=P_1+P_2$?