

**Class-IX** 

## **SECTION-A : SCIENCE**

| 1. Which of the following facts about fertilisers is true? |                                                                                                  |                         |                                                                                                 |                                 |  |
|------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|--|
|                                                            | <ul><li>(A) They are naturally produced</li><li>(C) They are made of decomposed matter</li></ul> |                         | <ul><li>(B) They are rich in a particular nutrient</li><li>(D) They are non-polluting</li></ul> |                                 |  |
|                                                            |                                                                                                  |                         |                                                                                                 |                                 |  |
|                                                            | Ans. (B)                                                                                         |                         |                                                                                                 |                                 |  |
| 2.                                                         | What is the chemical                                                                             | name for vinegar, which | ch we all have in our k                                                                         | ch we all have in our kitchens? |  |
|                                                            | (A) Citric Acid                                                                                  | (B) Malic Acid          | (C) Formic Acid                                                                                 | (D) Acetic Acid                 |  |
|                                                            | Ans. (D)                                                                                         |                         |                                                                                                 |                                 |  |
| 3.                                                         | What is the full form of CNG?                                                                    |                         |                                                                                                 |                                 |  |
|                                                            | (A) Common Natural Gas                                                                           |                         | (B) Chemical Natural Gas                                                                        |                                 |  |
|                                                            | (C) Compressed Natu                                                                              | ıral Gas                | (D) Cooled Natural (                                                                            | Gas                             |  |
|                                                            | Ans. (C)                                                                                         |                         |                                                                                                 |                                 |  |
| 4. How does water help in stopping a fire?                 |                                                                                                  |                         |                                                                                                 |                                 |  |
|                                                            | (A) Cuts off supply of oxygen                                                                    |                         | (B) Lowers the temperature                                                                      |                                 |  |
|                                                            | (C) Cuts off supply of                                                                           | f fuel                  | (D) All of these                                                                                |                                 |  |
|                                                            | Ans. (D)                                                                                         |                         |                                                                                                 |                                 |  |
| 5.                                                         | Which term is used to                                                                            | describe birds which    | go from one place to of                                                                         | ther depending on seasons?      |  |
|                                                            | (A) Traveling birds                                                                              | (B) Migratory birds     | (C) Nomadic birds                                                                               | (D) Inconsistent birds          |  |
|                                                            | Ans. (B)                                                                                         |                         |                                                                                                 |                                 |  |
| 6.                                                         | What is the fertilised                                                                           | egg called?             |                                                                                                 |                                 |  |
|                                                            | (A) Foetus                                                                                       | (B) Ova                 | (C) Baby                                                                                        | (D) Zygote                      |  |
|                                                            | Ans. (D)                                                                                         |                         |                                                                                                 |                                 |  |
| 7.                                                         | Which virus causes AIDS?                                                                         |                         |                                                                                                 |                                 |  |
|                                                            | (A) HIV                                                                                          | (B) E. Coli.            | (C) Vibrio Cholerae                                                                             | (D) Rotavirus                   |  |
|                                                            | Ans. (A)                                                                                         |                         |                                                                                                 |                                 |  |
| 8.                                                         | . Why are our bodies not crushed by the pressure of the atmosphere?                              |                         |                                                                                                 |                                 |  |
|                                                            | (A) The pressure is very small                                                                   |                         |                                                                                                 |                                 |  |
|                                                            | (B) Our internal press                                                                           | sure is equal to atmosp | heric pressure                                                                                  |                                 |  |
|                                                            | (C) Our bones are ver                                                                            | ry strong               |                                                                                                 |                                 |  |
|                                                            | (D) The atmospheric                                                                              | pressure keeps changir  | ng                                                                                              |                                 |  |
|                                                            | Ans. (B)                                                                                         |                         |                                                                                                 |                                 |  |



9. What is the unit of loudness of sound?

10.

12.

13.

16.

| (A) Decibel                                                                           | (B) metre per sec | (C) Hertz per sec                     | (D) Decibel per sec |  |
|---------------------------------------------------------------------------------------|-------------------|---------------------------------------|---------------------|--|
| Ans. (A)                                                                              |                   |                                       |                     |  |
| A glass rod is rubbed with silk. What can you tell about the charge on the glass rod? |                   |                                       |                     |  |
| (A) Neutral                                                                           |                   | (B) Negative                          |                     |  |
| (C) Positive                                                                          |                   | (D) Can be both positive and negative |                     |  |
| Ans. (C)                                                                              |                   |                                       |                     |  |
|                                                                                       |                   |                                       |                     |  |

## **SECTION-B: MENTAL ABILITY**

11. In the question, you are given a combination of letters followed by four alternatives (A), (B), (C) and (D). Choose the alternative which most closely resembles the water-image of the given combination.

|   | QUARREL                                                                                                         |              |                        |                                  |  |
|---|-----------------------------------------------------------------------------------------------------------------|--------------|------------------------|----------------------------------|--|
|   | (Y)QUARREL                                                                                                      | QUARREL (B)  | (C) <b>O A R R E L</b> | QUARREL(D)                       |  |
|   | Ans. (A)                                                                                                        |              |                        |                                  |  |
|   | The next term in the sequence 1, 3, 6, 11, 20, 37, ?                                                            |              |                        |                                  |  |
| ĥ | (A) 65                                                                                                          | (B) 67       | (C) 70                 | (D) 60                           |  |
|   | Ans. (C)                                                                                                        |              |                        |                                  |  |
|   | If a certain code PERINATH is written as QFQHOBSG and POLE as QPKD, how will SYNDROME be written in that code ? |              |                        |                                  |  |
|   | (A) RXONQNNF<br>Ans. (D)                                                                                        | (B) TZODQNLD | (C) TZMCSPKD           | (D) TZMCSPLD<br>ative Technology |  |

14. In the following question, there are two numbers to the left of the sign : : which are connected in some way. The same relationship is between the third number and one of the four alternatives given. Find the correct alternative.

| (A) 29             | (B) 27 | (C) 23 | (D) 21 |
|--------------------|--------|--------|--------|
| 11 : 17 : : 19 : ? | (B) 27 | (C) 23 | (D) 21 |

15. Count each 1 in the following sequence of numbers that is immediately followed by 2, if 2 is not immediately followed by 3. How many such 1's are there?

| 1 2 1 3 4 5 1 2 3 5 2 1 2 6 1 4 5 1 1 2 4 1 2 3 2 1 7 5 2 1 2 5                           |       |       |       |  |
|-------------------------------------------------------------------------------------------|-------|-------|-------|--|
| (A) 2                                                                                     | (B) 4 | (C) 5 | (D) 7 |  |
| Ans. (B)                                                                                  |       |       |       |  |
| In a certain code STATION is denoted by URCRKMP then BRING is denoted in the same code by |       |       |       |  |

(A) CSKLH (B) DSGLH (C) KSKPH (D) None of these Ans. (D)



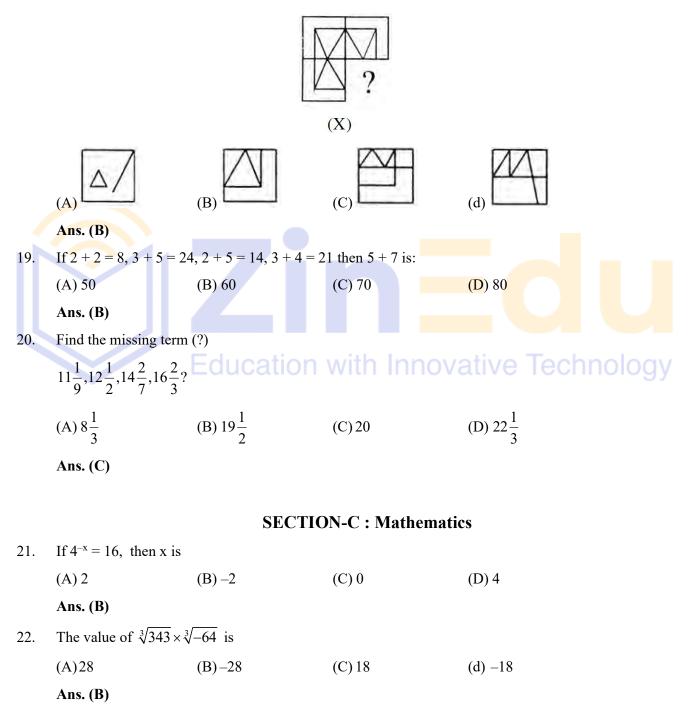
17. If at 12'O clock, minute hand and hour hand are facing towards North, then in which direction the minute hand is facing at 4 : 40?

| (A) 30° West of South | (B) 60° West of South |
|-----------------------|-----------------------|
|                       |                       |

(C) 30° East of South (D) 60° East of South

## Ans. (B)

18. In the given question, a part of the figure is missing. Find out from the given options (1, 2, 3, 4) the right figure to fit in the missing figure.





| 23. | The dimensions of a photograph are 30 cm $\times$ 20 cm. Find the length of the wooden frame needed frame the photograph                  |                                 |                                  |                                     |  |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------|-------------------------------------|--|
|     | (A) 600 cm                                                                                                                                | (B) 50 cm                       | (C) 100 cm                       | (D) 500 cm                          |  |
|     | Ans. (C)                                                                                                                                  |                                 |                                  |                                     |  |
| 24. | The cube root of $27^2$                                                                                                                   | is                              |                                  |                                     |  |
|     | (A) 27                                                                                                                                    | (B) 9                           | (C) 3                            | (D) None                            |  |
|     | Ans. (B)                                                                                                                                  |                                 |                                  |                                     |  |
| 25. | Square of an even num                                                                                                                     | mber is                         |                                  |                                     |  |
|     | (A) An even number                                                                                                                        |                                 | (B) An odd number                |                                     |  |
|     | (C) Sometimes even s                                                                                                                      | sometimes odd                   | (D) None of these                |                                     |  |
|     | Ans. (A)                                                                                                                                  |                                 |                                  |                                     |  |
| 26. | 6. By what number should $1\frac{2}{3}$ be divided to get $\frac{2}{3}$ ?                                                                 |                                 |                                  |                                     |  |
|     | (A) $2\frac{2}{3}$                                                                                                                        | (B) $1\frac{2}{3}$              | (C) $\frac{4}{9}$                | (D) $2\frac{1}{2}$                  |  |
|     | Ans. (D)                                                                                                                                  |                                 |                                  |                                     |  |
| 27. | In the following optic                                                                                                                    | ons, the measures of thr        | ee angles are given. W           | Thich of these can form a triangle? |  |
|     | (A) 45°, 61°, 73°                                                                                                                         | (B) 63°, 37°, 80°               | (C) 30°, 20°, 1 <mark>25°</mark> | (D) 59°, 72°, 61°                   |  |
|     | Ans. (B)                                                                                                                                  |                                 |                                  |                                     |  |
| 28. | 28. How many metres of a carpet 60 cm wide will be required to cover the floor of a room which is 1 metres long and 15 metres broad?      |                                 |                                  |                                     |  |
|     | (A) 320 m                                                                                                                                 | (B) 360 m                       | (C) 420 m                        | (D) 450 m                           |  |
|     | Ans. (D)                                                                                                                                  |                                 |                                  |                                     |  |
| 29. | The given rational numbers are $-\frac{2}{3}, \frac{7}{8}, -\frac{4}{5}, \frac{2}{9}$ . The sum of the greatest and the smallest rational |                                 |                                  | greatest and the smallest rational  |  |
|     | number is                                                                                                                                 |                                 |                                  |                                     |  |
|     | (A) $\frac{47}{63}$                                                                                                                       | (B) $\frac{3}{40}$              | (C) $-\frac{22}{15}$             | (D) $-\frac{12}{27}$                |  |
|     | Ans. (B)                                                                                                                                  |                                 |                                  |                                     |  |
| 30. | Write 3 <sup>12</sup> , 2 <sup>15</sup> , 5 <sup>6</sup> in th                                                                            | e ascending order.              |                                  |                                     |  |
|     | (A) $5^6$ , $2^{15}$ , $3^{12}$                                                                                                           | (B) $5^6$ , $3^{12}$ , $2^{15}$ | (C) $2^{15}$ , $5^6$ , $3^{12}$  | (D) $2^{15}$ , $3^{12}$ , $5^6$     |  |
|     | Ans. (A)                                                                                                                                  |                                 |                                  |                                     |  |
|     |                                                                                                                                           |                                 |                                  |                                     |  |