



SCIENCE APTITUDE TEST

CLASS 8

ANSWER KEY WITH SOLUTION

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PART - I : MENTAL ABILITY

1.
Sol. (d) 12

2.

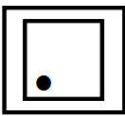
Sol. (c)



3.
Sol. (b) South-East

4.

Sol. (d)



5.
Sol. (c) 123

6.
Sol. (c) bcab

7.
Sol. (b) ५

8.
Sol. (d) Saturday

9.
Sol. (d) 27th

10.
Sol. (d) J

11.
Sol. (b) IB

12.
Sol. (c) Nylon

13.
Sol. (a) July

14.
Sol. (c) HJUD

15.
Sol. (d) Haematite



PART - II : MATHEMATICS

1.

Sol. (c) $7/2$

To find a rational number between 3 and 4, we can take the average of these two numbers.

$$(3 + 4) / 2 = 7 / 2$$

So, the answer is (c) $7/2$.

2.

$$\text{Sol. (a)} \quad \frac{4+x}{3} + \frac{7}{4} = \frac{3-x}{2} + \frac{5}{4}$$

$$\frac{16+4x+21}{12} = \frac{6-2x+5}{4}$$

$$\frac{4x+37}{12} = \frac{11-2x}{4}$$

$$4x + 37 = 33 - 6x$$

$$10x = -4$$

$$x = -2/5$$

Hence, the correct option is (a)

3.

Sol: (a) 45, 27

Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?

Let the numbers be $5x$ and $3x$ (where x is a common factor).

According to the problem, $5x - 3x = 18$.

$$2x = 18$$

$$x = 18 / 2$$

$$x = 9$$

So, the numbers are $5x = 5 \times 9 = 45$ and

$$3x = 3 \times 9 = 27.$$

The numbers are 45 and 27.

So, the answer is (a) 45, 27.

4.

Sol. (c) triangle.

A polygon with the minimum number of sides is:

The polygon with the minimum number of sides is a triangle.

So, the answer is (c) triangle.

5.

Sol. (d) 900°

The angle sum of all interior angles of a convex polygon of sides 7 is:

The sum of the interior angles of a convex polygon can be found using the formula: Sum = $(n-2) \times 180$ degrees, where n is the number of sides.

For a polygon with 7 sides:

$$\text{Sum} = (7 - 2) \times 180 = 5 \times 180 = 900 \text{ degrees.}$$

So, the answer is (d) 900 degrees.

Here are the answers to the questions:

6.

Sol. (a) 1.04

$$1.04 \times 1.04 = 1.0816$$

$$\sqrt{1.0816} = 1.04$$

7.

Sol. (c) 10

In a Pythagorean triplet (a, b, c), if a = 6 and b = 8, you can use the Pythagorean theorem to find c:

$$c^2 = a^2 + b^2$$

$$c^2 = 6^2 + 8^2$$

$$c^2 = 36 + 64$$

$$c^2 = 100$$

$$c = \sqrt{100}$$

$$c = 10$$

So, the value of 'x' in the Pythagorean triplet (6, 8, x) is (c) 10.

8.

Sol. (c) 729

The greatest three-digit perfect cube is (c) 729, because $9^3 = 729$.

9.

Sol. (a) 3

To make 243 a perfect cube, we need to find the smallest natural number by which it must be multiplied.

243 can be written as 3^5 . To make it a perfect cube, we need to multiply it by 3^1 (which is 3) to get 3^6 , which is a perfect cube. So, the smallest natural number by which 243 must be multiplied to make the product a perfect cube is (a) 3.

10.

Sol. (a) 2

To find the number of digits in the cube root of 46656, you need to calculate the cube root first: Cube root of 46656 = 36, because $36 \times 36 \times 36 = 46656$

Now, there are 2 digits in the number 36. So, the answer is (a) 2.

11.

Sol. (b) 3 : 5

The ratio of 90 cm to 1.5 m is:

First, let's convert both quantities to the same unit (either cm or m). Since 1 m = 100 cm, we have:

90 cm and 150 cm.

The ratio of 90 cm to 150 cm is 3 : 5.

So, the answer is: b) 3 : 5

12.

Sol. (b) 1 : 2

The ratio of Speed of a cycle 15 km per hour to the speed of scooter 30 km per hour:

The ratio of the speeds is:

15 km/h : 30 km/h

Simplifying the ratio by dividing both sides by 15: 1 : 2

So, the answer is: b) 1 : 2

13.

Sol. (a) Rs 472.5

The bill amount if the cost of a toy is Rs 450 and the sales tax charge is 5%:

Sales tax = 5% of

$$\text{Rs } 450 = 0.05 \times 450 = \text{Rs } 22.5$$

The total bill amount is the cost of the toy plus the sales tax:

$$\text{Total bill amount} = \text{Rs } 450 + \text{Rs } 22.5 = \text{Rs } 472.5 \quad \text{So, the answer is: a) Rs 472.5}$$

14.

Sol. (c) 6%

Sum (P) = Rs. 7500

Amount (A) = 8427

Period = 2 years

Let R be the rate of p.a., then

$$\therefore \frac{A}{P} = \left(1 + \frac{R}{100}\right)^n \Rightarrow \frac{8427}{7500} = \left(1 + \frac{R}{100}\right)^2 \Rightarrow \frac{2809}{2500} = \left(1 + \frac{R}{100}\right)^2 \Rightarrow \left(\frac{53}{50}\right)^2 = \left(1 + \frac{R}{100}\right)^2$$

$$\therefore 1 + \frac{R}{100} = \frac{53}{50} \Rightarrow \frac{R}{100} = \frac{53}{50} - 1 = \frac{3}{50}$$

$$\therefore R = \frac{3}{50} \times 100 = 6\%$$

15.

Sol. (b) -3Coefficients of y in the expression $4x - 3y$:The coefficient of y in the expression $4x - 3y$ is -3. So, the answer is: b) -3

16.

Sol. (c) Inner dimensions of the box are $28 \text{ cm} \times 16 \text{ cm} \times 12 \text{ cm}$.

Number of cakes of soaps is maximum.

$$\therefore \text{Number of cakes of soaps along length} = \frac{28}{4} = 7$$

$$\text{Number of cakes of soaps along breadth} = \left(\frac{16}{8}\right) = 2$$

$$\text{Number of cakes of soaps along height} = \frac{12}{6} = 2$$

$$\therefore \text{Total number of cakes of soaps} = 7 \times 2 \times 2 = 28$$

Hence, the correct option is (c).

17.

Sol. (d) 5To find the value of the expression $(a^2 + a + 1) + 5$ for $(a = 0)$,we substitute $(a = 0)$ into the expression:

$$[0(0^2 + 0 + 1) + 5 = 0(1) + 5 = 0 + 5 = 5]$$

So, the value of the expression for $(a = 0)$ is (d) 5.

18.

Sol. (c) cube

The 3D shape among the options is (c) cube.

19.

Sol. (c)

$$(729)^{x+3} = (27)^{5+x}$$

$$(3^6)^{x+3} = (3^3)^{5+x}$$

$$3^{6x+18} = 3^{15+3x}$$

$$\Rightarrow 6x + 18 = 15 + 3x$$

$$\Rightarrow 6x - 3x = 15 - 18$$

$$3x = -3$$

$$x = -1$$

$$\therefore x^x = (-1)^{(-1)} = \frac{1}{-1} = -1 \quad \text{Hence, the correct option is (c)}$$

20.

Sol. (a) 8

In a 3D shape with 6 vertices and 12 edges, according to Euler's formula ($V - E + F = 2$), where V is the number of vertices, E is the number of edges, and F is the number of faces, we can solve for F:

$$[6 - 12 + F = 2 \text{ implies } F = 8]$$

So, if there are 6 vertices and 12 edges, the number of faces is (a) 8.

21.

Sol. (b) base \times height

The area of a parallelogram is given by the formula:

$$\text{Area} = \text{base} \times \text{height}$$

So, the correct answer is (b) base \times height.

22.

Sol. (a) 44 cm

The circumference of a circle is given by the formula:

$$\text{Circumference} = \pi \times \text{diameter}$$

Given the diameter is 14 cm, we can calculate the circumference as follows:

$$\text{Circumference} = \pi \times 14 \text{ cm}, = \frac{22}{7} \times 14 = 44 \text{ cm}$$

So, the correct answer is (a) 44 cm.

23.

Sol. (d) 7000

$$\text{Radius} = 0.25 \text{ m}$$

$$\text{Circumference} = 2\pi r = 2 \times \frac{22}{7} \times 0.25 \text{ m}$$

$$\text{No. of revolutions} = \frac{\text{total distance}}{\text{circumference}} = \frac{11000 \times 7}{2 \times 22 \times 0.25} = 7000 \text{ revolutions}$$

24.

Sol. (a) 4.75 m

A cuboidal vessel is 10 m long and 8 m wide. How high must it be made to hold 380 cubic meters of a liquid?

Volume of a cuboid = Length \times Width \times Height

$$\text{Volume} = 10 \text{ m} \times 8 \text{ m} \times \text{Height} = 80 \text{ m}^2 \times \text{Height}$$

Given that the volume should be 380 cubic meters, we can set up an equation:

$$80 \text{ m}^2 \times \text{Height} = 380 \text{ m}^3$$

Now, solve for Height:

$$\text{Height} = 380 \text{ m}^3 / 80 \text{ m}^2 = 4.75 \text{ meters}$$

So, the height of the cuboidal vessel should be 4.75 meters.

Answer: (a) 4.75 m

25.

Sol. (b) 3^6

Express 729 as a power of 3:

$$729 = 3^6$$

So, 729 can be expressed as 3 raised to the power of 6. **Answer: (b) 3^6**

26.

Sol. (b)

In standard form, 52,00,00,000 is equal to:

Standard form expresses a number as a product of a number between 1 and 10 and a power of 10. In this case:

$$52,00,00,000 = 5.2 \times 10^8$$

So, in standard form, 52,00,00,000 is equal to 5.2×10^8 .

Answer: (b) 5.2×10^8

27.

Sol. (a) 7, 21

Bansi has 3 times as many two-rupee coins as he has five-rupee coins. If he has in all a sum of Rs 77, how many coins of each denomination does he have?

Let's denote the number of five-rupee coins as "x" and the number of two-rupee coins as "3x".

The total value of five-rupee coins is 5x, and the total value of two-rupee coins is $2(3x) = 6x$.

According to the problem, the total sum is Rs 77, so we can write the equation:

$$5x + 6x = 77$$

Solving for x:

$$11x = 77$$

$$x = 7$$

So, Bansi has 7 five-rupee coins and

$$3x = 3(7) = 21 \text{ two-rupee coins.}$$

Answer: (a) 7, 21

28.

Sol. (a) Rs 40,800

The price of a scooter was Rs 34,000 last year. It has increased by 20% this year. What is the price now?

The price increase can be calculated as follows:

$$\text{Increase} = 20\% \text{ of Rs } 34,000 = (20/100) \times 34,000 = \text{Rs } 6,800$$

So, the price of the scooter this year is:

$$\text{Rs } 34,000 + \text{Rs } 6,800 = \text{Rs } 40,800$$

Answer: (a) Rs 40,800

29.

Sol. (b) Rs 3600

Amount = Rs.3700, Rate = 5%, Time = 8 months

Let us assume that principal value = Rs. 3600

$$\text{Simple Interest} = P \times R \times T / 100$$

$$P = 3600, R = 5\%, T = 8 \text{ months}$$

$$\text{S.I.} = 3600 \times 8/12 \times 5/100 = \text{Rs. } 120$$

$$\text{Amount} = 3600 + 120 = \text{Rs } 3720$$

So, Principal = Rs 3600

30.

Sol. (d) 20%

At simple interest, a sum becomes double of itself in 5 years. The rate of interest percent per annum is:

Let the principal amount be "P." According to the problem, the sum becomes double itself in 5 years, which means the total amount is 2P.

We can use the formula for simple interest to find the rate (R):

$$\text{Simple Interest (SI)} = (\text{Principal} \times \text{Rate} \times \text{Time}) / 100$$

$$2P = P + \text{SI}$$

$$2P = P + (P \times R \times 5/100)$$

Now, solve for R:

$$2P = P + (5PR/100)$$

$$2P = P(1 + 5R/100)$$

Now, divide both sides by P:

$$2 = 1 + 5R/100$$

Subtract 1 from both sides:

$$2 - 1 = 5R/100$$

$$1 = 5R/100$$

Now, solve for R:

$$R = (1 \times 100)/5 = 20\%$$

So, the rate of interest per annum is 20%.

Answer: (d) 20%

Sure, let's go through each of the questions one by one:

31.

Sol. (c) $3a - b - 3$

$$(a + b - 3) - (b - a + 3) + (a - b + 3)$$

Simplify each part of the expression step by step:

$$a + b - 3 - b + a - 3 + a - b + 3$$

$$= a + a + a + b - b - b - 3 - 3 + 3$$

$$= 3a - b - 3$$

So, the answer is (c) $3a - b - 3$.

32.

Sol. (c) $-8x$

Subtracting $(7x + y)$ from $(-x + y)$:

$$-x + y - (7x + y)$$

$$= -x + y - 7x - y$$

$$= -8x$$

So, the answer is (c) $-8x$.

33.

Sol. (b) 14

$$= \sqrt[3]{3 \times 4 \times 3} \times \sqrt{7 \times 8 \times 4}$$

$$= \sqrt{7 \times 28}$$

$$= \sqrt{7 \times 7 \times 4}$$

$$= 7 \times 2 = 14$$

Hence, the correct option is (b).

34.

Sol. (b) 2

To find the smallest positive integer, we need to factorize 2916 and then find the missing factors to make it a perfect cube.

Factorize 2916:

$$2916 = 2^2 \times 3^6$$

To make it a perfect cube, we need to make the exponents of all prime factors multiples of 3.

For 2, we need 2^1 more: $2^2 \times 2^1 = 2^3$

So, we need to multiply 2916 by 2^1 to make it a perfect cube.

The smallest positive integer that does this is 2.

$$2916 \times 2 = 5832.$$

$$18 \times 18 \times 18 = 5832, 5832 \text{ is the cube of the } 18.$$

Therefore, the answer is (b) 2.

35.

Sol. (c) 64 cm

Let's denote the length of the rectangle as L.

$$\text{Area of the square} = \text{side}^2 = 40^2 = 1600 \text{ square cm}$$

$$\text{Area of the rectangle} = \text{length} \times \text{breadth} = L \times 25 \text{ cm}$$

Since the areas are equal, we can set up an equation:

$$L \times 25 = 1600$$

Now, solve for L:

$$L = 1600 / 25$$

$$L = 64 \text{ cm}$$

Therefore, the length of the rectangle is (c) 64 cm.

36.

Sol. (a) 13

Let's denote the speed of the boat in still water as x km/h and the speed of the current as y km/h.

When going downstream, the effective speed is $(x + y)$ km/h, and the distance is 48 km. Time = 3 hours.

$$\text{So, } 48 = (x + y) \times 3$$

When going upstream, the effective speed is $(x - y)$ km/h, and the distance is 40 km.

Time = 4 hours.

$$\text{So, } 40 = (x - y) \times 4$$

We have a system of two equations:

$$3(x + y) = 48 \dots\dots\dots(i)$$

$$4(x - y) = 40 \dots\dots\dots(ii)$$

Let's solve this system of equations:

From equation (i):

$$3(x + y) = 48$$

$$x + y = 16$$

From equation (ii):

$$4(x - y) = 40$$

$$x - y = 10$$

Now, add the two equations together to eliminate y :

$$(x + y) + (x - y) = 16 + 10$$

$$2x = 26$$

$$x = 13$$

Therefore, the speed of the boat in still water is (a) 13 km/h.

37.

Sol. (a) 5544

To find the area of a circle whose circumference is equal to the perimeter of a parallelogram with sides 65 cm and 67 cm, we first need to find the perimeter of the parallelogram.

Perimeter of a parallelogram = $2 \times (\text{sum of adjacent sides})$

$$\text{Perimeter} = 2 \times (65 \text{ cm} + 67 \text{ cm})$$

$$\text{Perimeter} = 2 \times 132 \text{ cm}$$

$$\text{Perimeter} = 264 \text{ cm}$$

Now that we know the circumference of the circle is 264 cm, we can use the formula for the circumference of a circle to find its radius:

$$\text{Circumference (C)} = 2\pi r$$

$$264 \text{ cm} = 2\pi r$$

Now, solve for the radius (r):

$$r = 264 \text{ cm} / (2\pi)$$

$$r = 42 \text{ cm}$$

Now that we have the radius, we can find the area of the circle using the formula:

$$\text{Area (A)} = \pi r^2$$

$$A = \pi \times (42 \text{ cm})^2$$

$$A = 5544 \text{ square cm}$$

So, the area of the circle is 5544 square cm.

Answer: (a) 5544

38.

Sol. (d) 40%

two successive discounts on an article are 25% and 20%. the marked price of an article be ? 100.

Now,

$$\text{First discount of 25\%} = 25\% \text{ of Rs } 100 = \text{Rs } 25$$

Price after 1st discount

$$= \text{Rs } 100 - \text{Rs } 25 = \text{Rs } 75$$

Second discount of 20%

$$= 20\% \text{ of Rs } 75$$

$$= \text{Rs } 15$$

Price after 2nd discount

$$= \text{Rs } 75 - \text{Rs } 15$$

$$= \text{Rs } 60$$

Therefore, Single discount in percentage equivalent to two given successive discounts

$$= (\text{change in price} / \text{initial price}) \times 100$$

$$= (100 - 60 / 100) \times 100$$

$$= 40 \%$$

39.

Sol. (d) 126

First, find the LCM of 8, 12, and 15.

$$\text{LCM}(8, 12, 15) = 120$$

Now, add 6 to the LCM:

$$120 + 6 = 126$$

So, the number you're looking for is 126. When you divide 126 by 8, 12, or 15, you will get a remainder of 6 in each case:

$$126 \text{ divided by } 8 = 15 \text{ with a remainder of } 6.$$

$$126 \text{ divided by } 12 = 10 \text{ with a remainder of } 6.$$

$$126 \text{ divided by } 15 = 8 \text{ with a remainder of } 6.$$

Answer is (d) 126.

40.

Sol. (b) 36

$$\text{HCF} \times \text{LCM} = \text{Product of the two numbers}$$

In this case, you are given that the HCF is 12, the LCM is 72, and one of the numbers is 24. Let's call the other number "x."

Using the formula:

$$12 \times 72 = 24 \times x$$

Now, solve for x:

$$864 = 24x$$

Divide both sides by 24 to isolate x:

$$x = 864 / 24$$

$$x = 36$$

So, the other number is 36.

PART - III : PHYSICS & CHEMISTRY

1.

Sol. (c) Here the body covers 100 m in 10 s
The body travels in a straight path, then displacement,

$\vec{S} = 100 \text{ m}$ and $t = 10 \text{ s}$. The average velocity,

$$\vec{V} = \frac{100\text{m}}{10\text{s}} = 10 \text{ ms}^{-1}$$

$$\text{And average speed} = \frac{S}{t} = \frac{100\text{m}}{10\text{s}} = 10 \text{ ms}^{-1}$$

Both (A) and (B) are true.

Hence, the correct option is (c).

2.

Sol. (c) Given: $u = 20 \text{ m s}^{-1}$; $v = 0$; $t = 10 \text{ s}$

$$a = \frac{v - u}{t} = \frac{0 - 20}{10} = -2 \text{ ms}^{-2}$$

Hence, the correct option is (c).

3.

Sol. (b) Give: $t_1 = 9 \text{ a.m.}$; $t_2 = 8 \text{ p.m.}$

$$\Rightarrow \Delta t = t_2 - t_1 = 11 \text{ h}$$

Distance travelled; $s = ?$

Average speed, $v = 20 \text{ km h}^{-1}$

$$v = \frac{s}{t}$$

$$s = v \times t = 20 \times 11 = 220 \text{ km}$$

Odometer reading at 8 p.m. is

$$\therefore 4700 + 220 = 4920.$$

Hence, the correct option is (b).

4.

Sol. (d) When a person swims, he pushes the water in backward direction and he moves in forward direction. So, A is incorrect.

Action and reaction act on two different bodies, therefore, R is also incorrect.

Hence, the correct option is (d).

5.

Sol. (b) When the sound travels from one medium to another its frequency remains same.

Hence, the correct option is (b).

6.

Sol. (d) Frequency = $\frac{1}{T}$

Time period = 4 s

$$\therefore \text{frequency} = 1/4 = 0.25 \text{ Hz}$$

Hence, the correct option is (d).

7.

Sol. (b)

$$\frac{313 \text{ K} - 273 \text{ K}}{100} = \frac{F - 32}{180} \Rightarrow F = 104^\circ \text{ F}$$

Hence, the correct option is (b).

8.

Sol. (c)

$$\frac{5 - 2}{8} = \frac{C - 0}{100} \Rightarrow C = \frac{3}{8} \times 100 = 37.5^\circ \text{ C}$$

Hence, the correct option is (c).

9.

Sol. (d) Temperature can also change when the heat flows in the form of radiation.
Hence, the correct option is (d).

10.

Sol. (d) Here, body A is at higher potential when connected to body B. The positive charges flow from A to B, i.e., conventional current flows from A to B or electronic current flows from B to A.
Hence, the correct option is (d).

11.

Sol. (c) In fig (c), silk thread is an insulator, so the current flows through the bulb.
In fig (b), silver wire is a conductor so the current flows through the wire instead of bulb.
In fig (a), the plug key is open
In fig (d), the bulb is fused.
Hence, the correct option is (c).

12.

Sol. (c) earthquake under sea

13.

Sol. (c) When a charged object comes in contact with the Earth, the charges flow into the Earth and the body gets discharged. This process is called earthing.

14.

Sol. (c) Flash of lightning is seen instantly where as sound takes 2 seconds to reach us.
distance = speed \times time = $330 \times 2 = 660 \text{ m}$

15.

Sol. (c)

16.

Sol. (b) Ferric: +3, Cuprous: +1, Stannic: +4, Mercuric: +2, Potassium: 0

17.

Sol. (b) (A) Calcium phosphate: $\text{Ca}_3(\text{PO}_4)_2$: 8 atoms
(B) Calcium nitrate: $\text{Ca}(\text{NO}_3)_2$: 6 atoms
(C) Calcium carbonate: CaCO_3 : 3 atoms
(D) Calcium sulphate: CaSO_4 : 4 atoms
(E) Calcium oxide: CaO : 1 atom

18.

Sol. (c) Graphite is used for electrometallurgical processes, so it is carbon.

19.

Sol. (a) Gum metal contains 88% copper, 8–10% tin, and 2–4% zinc approx.

20.

Sol. (a) Valency of element X in XCl_3 with respect to Cl is 3. Given that valencies of X in the two oxides are 2 and 3 with respect to oxygen, and formulae of oxides are XO and X_2O_3 .

21.

Sol. (b) Zn can displace Cu from its salt solution.

22.

Sol. (b) Aluminium form Al_2O_3 , that stop further corrosion of Al.

23.

Sol. (d) Dry powder fire extinguisher is mostly used for fire in gaseous substances.

24.

Sol. (d) Marsh gas, is released from coal mines. It is mixture of methane and small number of other gases like hydrogen sulphide etc.

25.

Sol. (b)

- (i) $\text{NaCl} \rightarrow$ Food additive
- (ii) $\text{NaHCO}_3 \rightarrow$ Fire extinguisher
- (iii) Washing soda \rightarrow Detergents
- (iv) Potassium nitrate \rightarrow Fertilizer

26.

Sol. (c) Common salt (Sodium chloride, NaCl) is mainly present in sea or ocean water.

27.

Sol. (d) Antacids are the mild bases that are used to treat acidity.

28.

Sol. (d) In physical change, generally changes are reversible and no new substance is formed.

29.

Sol. (b) As new substance curd is forming, it is a chemical change.

30.

Sol. (b) As in digestion, new substance is formed, it is a chemical change.

PART - IV : BIOLOGY

1.

Sol. (d) A is false and R is true.

Fusion of Gametes is called fertilization and after fertilization zygote will form not embryo, Embryo is from after cell division in zygote.

2.

Sol. (c) During inhalation and exhalation, rib cage does not move.

During inhalation and exhalation ribs move.

3.

Sol. (a) Cholera

cholera is a bacterial disease and caused by *Vibrio cholerae*.

4.

Sol. (d) All of these

This is called drip irrigation system and it is useful for the farms & garden. In this method water is provided in drip-by-drip process with very minimum wastage so all options are correct.

5.

Sol. (b) Preparation of bread is anaerobic respiration in flour by yeast and during this process carbon dioxide is produced.

6.

Sol. (c) Statement 1 is true but statement 2 is false.

Aquatic animals produce large number of eggs and sperms necessary to ensure external fertilization. So, this statement is correct but the gametes do not have cilia to swim in water.

7.

Sol. (c) Makes the soil hard

Ploughing makes soil soft by loosens the soil, aerates the soil and allows easy penetration of roots into the soil.

8.

Sol. (a) A seed drill is a device used in agriculture that sows seeds for crops by positioning them in the soil and burying them to a specific depth

9.

Sol. (c) Nursery

A nursery is a place where plants are propagated and grown to a desired size.

10.

Sol. (b) Diptheria, Pertussis, Tetanus

DTP vaccines are a shot of medicine that help protect your child from the diseases diphtheria, tetanus, and pertussis. These 3 diseases were very common before vaccines were found and caused many deaths every year.

11.

Sol. (c) Heterocyst

Heterocyst are modified cells of cyanobacteria (blue green algae) which are formed from the vegetative cells. These are the sites for Nitrogen fixation.

12.

Sol. (b) Weedicides are used to destroy weeds.

13.

Sol. (a) 1 april 1973

Project Tiger was launched on April 1, 1973.

14.

Sol. (b) Zygote

A zygote is the first diploid cell that is formed by the fusion of male and female gametes resulting in the formation of an embryo. This is formed by the fusion of two gametes.

15.

Sol. (c) Edward Jenner

Vaccine for small pox is discovered by Edward Jenner .

