Solution of the day/ August 6, 2019

6th Class

- **Mathematics:** Ans : (C)

  Find LCM and then add 15 minutes.

- **Physics:** Ans: (C)
- **Chemistry:** Ans: (A)
- **Biology:** Ans: (B)

7th Class

- **Mathematics :** Ans : (B)
- **Physics:** Ans: (A)
- **Chemistry:** Ans: (C)
- **Biology:** Ans: (C)

8th class

- **Mathematics:** Ans: (C)

$$\text{Given } \frac{(0.6)^0-(0.1)^{-1}}{\left(\frac{3}{2^3}\right)^{-1}\left(\frac{3}{2}\right)^3+\left(\frac{-1}{3}\right)^{-1}} \Rightarrow \frac{1-\left(\frac{1}{10}\right)^{-1}}{\left(\frac{3}{8}\right)^{-1}\left(\frac{27}{8}\right)^3+\left(\frac{-1}{3}\right)^{-1}} (\because a^0=1)$$

$$\Rightarrow \frac{1-10}{\left(\frac{8}{3}\right)\left(\frac{27}{8}\right)+(-3)} \left(\because \frac{1}{\left(\frac{a}{b}\right)}=\frac{b}{a} \right) \Rightarrow \frac{-9}{9-3}=\frac{-9}{6}=\frac{-3}{2}$$

- **Physics:** Ans : (B)
- **Chemistry:** Ans: (A)
- **Biology:** Ans: (B)

9th Class

- **Mathematics :** Ans : (C)

$\angle QXY = 60^o$ [$\because$ ∠AXQ and ∠QXY are linear pair]

$\angle QYX = 70^o$ [$\because$ ∠QYX and ∠BYR are vertically opposite angles]

$\therefore \angle PQR = 50^o$ [$\because$ ∠QXY and ∠QYX and ∠PQR are angles in a triangle]

$\angle QZC = 70^o$ [$\because$ ∠QZC and ∠BYR are alternate angles]

$\angle AXP = 60^o$ [$\because$ ∠AXQ and ∠AXP are linear pair]

$\therefore \angle CWP = 60^o$ [$\because$ ∠CWP and ∠AXP are corresponding angles]

- **Physics:** Ans : (B)

- **Chemistry:** Ans: (B)

- **Biology:** Ans: (B)

10th class

- **Mathematics:** Ans : (A)

It is known that the system of equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2 - y + c_2 = 0$ has no solution,

If $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$

The given system of linear equations is :

$$\frac{4(a+b)}{2b} = \frac{-2b}{a-b} \Rightarrow 4(a+b)(a-b) = -4b^2$$

$$\Rightarrow a^2 - b^2 = -b^2$$

$$\Rightarrow a^2 = 0 \Rightarrow a = 0$$

$$4(a+b)x - 2by - 1 = 0$$

$$2bx + (a-b)y + 8 = 0$$

Since this system has no solution, it can be concluded that: Thus the value of a is 0.

- **Physics:** Ans: (A)
- **Chemistry:** Ans: (C)
- **Biology:** Ans: (D)
- **Reasoning :** Ans: (C)

In 12 h, they are right angles, 22 times.
So, in 24 h, they are at right angles, 44 times