DAY-3

APPLICATION

1) CP = 500
SP = 450

Now, loss = CP - SP
⇒ 500 - 450
⇒ 50//

⇒ loss% = $\frac{loss}{CP} \times 100$ ⇒ $\frac{50}{500} \times 100$
⇒ 10%.

2) Let no of skilled, unskilled workers and clerk be
⇒ 8x, 5x and x

So, 5x = 20 ⇒ x = 4//
let their wages be 5y, 2y and 3y.
Now,
⇒ 32x5y + 20x2y + 12y = 3180
⇒ y = 12//

So their daily wages will be :-
⇒ 32x5x15 ⇒ 20x2x15 ⇒ 12x15
⇒ 2400, ⇒ 600, ⇒ 180

3) If x varies inversely as $\{y^2 - 1\}$ and is equal to 24. when y = 10,

⇒ $x \propto \frac{1}{y^2-1}$. ⇒ $x = \frac{k}{y^2-1}$.

⇒ if $y = 10$, then $x = 24$

So,

$\Rightarrow 24 = k/99$

$\Rightarrow k = 99 \times 24$, Now, $y = 5$

then, $x = \frac{99 \times 24}{24} \Rightarrow x = 99$//

4⇒ let the soldiers in two camps be $10x$, $3x$ and losses be $2y$ and $3y$

then, $10x - 2y = 24000$

and $3x - 3y = 24000 \times \frac{13}{40} \Rightarrow 7800$

$x = 2800$.

on solving, we get,

then $\Rightarrow 10x = \underline{28000}$

$3x = \underline{8400}$

5⇒ Given number ⇒ 256256 and 678678

we can write it = 256×1001

and = 678×1001

∴ So any number of this form is divisible by 1001//

6⇒ Ans.

8→ Total marks in 10 papers = $10 \times 80 = 800$

" " " 8 " = $8 \times 81 = 648$

" " " 2 " = $800 - 648 = 152$.

let I^st no be x

$\Rightarrow x + 92 = 152$

$x = 60$%.

9→ $P(x) = 1/6$, $P(y) = 1/10$, $P(z) = 1/8$

So, $P(x) + P(y) + P(z)$

$\Rightarrow 1/10 + 1/6 + 1/8$

$\Rightarrow 47/120$.

10→ Acc to ques.

$\Rightarrow \frac{83x + 76y}{x+y} = 79$ $\Rightarrow x = 3y/4$

$\Rightarrow \frac{76y + 85z}{y+z} = 81$ $\Rightarrow z = 5y/4$

Now, avg of all 3 = $\frac{83x + 76y + 85z}{x + y + z}$

$\Rightarrow \frac{83\{3y/4\} + 76y + 85\{5y/4\}}{\frac{3y}{4} + y + \frac{5y}{4}}$ $\Rightarrow \frac{\frac{249}{4} + 76 + \frac{424}{4}}{\frac{3}{4} + 1 + 5/4}$.

$$\Rightarrow \frac{\frac{249 + 304 + 425}{4}}{\frac{3+4+5}{4}}$$

$\Rightarrow 978/12$

$\Rightarrow 81.5$

REASONING

1) CUP : LIP :: BIRD : ?

⇒ BEAK.

2) PAW : CAT :: HOOF : ?

⇒ HORSE.

3) A - only conclusion Ist follow.

4) A - Some gems are Markers.

5) A - this flower is a rose.