10. (i) Correct number = 3.625

Number wrongly read as = 3.6265

Error = 3.625 − 3.265 = 0.360

Percentage error = $\frac{0.360}{3.625} \times 100$

$= \frac{360}{3625} \times 100 = \frac{36000}{3625} = 9.93\%$.

(ii) Correct number $= 5.78 \times 10^3$

Number wrongly written as $= 5.78 \times 10^3$

Error $= 5.87 \times 10^3 - 5.78 \times 10^3$

$= 0.09 \times 10^3$

Percentage error $= \frac{0.09 \times 10^3}{5.78 \times 10^3} \times 100$

$= \frac{0.09}{5.78} \times 100 = \frac{9}{578} \times 100 = \frac{900}{578}\% = 1.56\%$.

11. Winning candidates secured 58% of the votes polled

∴ Losing candidates secured

$= (100 - 58)\%$ of the votes polled.

$= 42\%$ of the votes polled.

Difference of votes $= 58 - 42 = 16\%$ of the votes polled.

We are given:

16% of votes polled = 8,336

$\Rightarrow \frac{16}{100}$ of votes polled = 18,336

$\Rightarrow$ Votes polled $= 18,336 \times \frac{100}{16} = 1833600 = 1,14,600$

∴ Votes secured by winning candidate $= \frac{58}{100} \times 1,14,600$

$= 66,468$

Votes secured by losing candidate $= \frac{42}{100} \times 1,14,600 = 48,132$

Votes polled = 1,14,600

Votes secured by winning candidate = 66,468
Votes secured by loosing candidate = 48,132

12) The loosing candidate secured 47% of the votes polled.
Winning candidate secures votes
$\Rightarrow (100-47)\%$ of the votes polled
$\Rightarrow 53\%$ of the votes polled.
Difference of votes $= 53 - 47$
$= 6\%$ of the votes polled
We are given:
6% of the votes polled = 12,366
$= \frac{6}{100}$ of the votes polled = 12,366

$\Rightarrow$ Votes polled
$= 12,366 \times \frac{100}{6} = \frac{1236600}{6} = 206,100$

~~Votes polled secured~~
$= 123$
Votes polled = 2,06,1000
Votes secured by winning candidate = 1,09,233

13) i) Present cost of scooter = ₹8000
The cost of scooter depreciates by 15% every year.
Cost of scooter after one year
$= \frac{(100-15)}{100} \times 8000$

$= \frac{85}{100} \times 8000$

$= ₹6800$

ii) Present cost of scooter = ₹80000
The cost of scooter depreciates by 15% every year.
Cost of scooter after 2 years
$= \frac{(100-15)}{100} \times 6800 = \frac{85}{100} \times 6800 = ₹5780.$

142 Marks obtained by the candidate = 68
Fails by = 3 marks
Pass marks = 65 + 3 = 68
Percentage of pass marks = 40%.
∴ Required maximum marks
$= \frac{\cancel{100}^{10}}{\cancel{40}_{4}} \times \cancel{68}^{17} = 10 \times 17 = 170$