Step:

1) The number which is closest to $\sqrt{38}$ is $\left(\sqrt{36} = 6\right)$

2) Write $6 + \cdots\cdots$ (A)

3) Now, $\dfrac{38 - 36}{6 \times 2}$

$$= \dfrac{2}{12} = \dfrac{1}{6} = 0.16$$ (B)

4) Now, add 0.16 to 6

Answer $= 6.16$,

2) $\sqrt{910} = \sqrt{900}$

$$= 30 + \underline{\quad\quad}$$ (A)

Now, $\dfrac{910 - 900}{30 \times 2} = \dfrac{10}{60} = 0.16$ (B)

So, Answer is $30 + 0.16 = 30.16$

Square root of a perfect no

$$1^2 = 1$$
$$2^2 = 4$$
$$3^2 = 9$$
$$4^2 = 16$$
$$5^2 = 25$$
$$6^2 = 36$$
$$7^2 = 49$$
$$8^2 = 64$$
$$9^2 = 81$$
$$10^2 = 100.$$

1) $\sqrt{3969}$.

Last digit is 9.
From the table above,
3 & 7 are the numbers
associated with 9, which
is in the unit's place.

So,   ③   or ⑦   would
be at the unit's place.

Now, Consider the first 2 digits 39.

The perfect square less than 39 is $6^2 = 36$.

So, multiply 6 with the next number, i.e, 7
$$6 \times 7 = 42.$$

But $42 > 39$.

So, choose the smaller number.

So, the answer is $\underline{63}$

2) $\sqrt{6724}$

Last digit is 4.

From the table,
2 & 8 are the nos. associated with 4, which is in the unit's place. ——— A.

Now, Consider the first 2 digits, 67.

The perfect square less than 67 is $8^2 = 64$. ——— B

So multiply 8 with the next number, i.e 8×9
$$= 72.$$

But $72 > 67$.

So, choose the smaller no.
So, the answer is $\underline{82}$.

FEB 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28											

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						

APR 2017

Another method of Square Root

$$1^2 = 01$$
$$2^2 = 04$$
$$3^2 = 09$$
$$4^2 = 16$$
$$5^2 = 25$$
$$6^2 = 36$$
$$7^2 = 49$$
$$8^2 = 64$$
$$9^2 = 81$$
$$10^2 = 100.$$

1) $\sqrt{6724}$

This number lies between 80^2 and 90^2.

Since, the unit place is 4, the nos. associated with 4 are 2 or 8.

Now, the middle no. between 80^2 & 90^2 is $\underline{85^2}$

So, $85^2 = 7225$.
But, $6724 < 7225$.
So, consider the smaller no.

Out of 82 & 88,
Answer is $\underline{82}$

2) $\sqrt{5041}$

The unit's place is 1.
So, the nos. associated with 1 are 1 and 9.

5041 lies between 70^2 & 80^2
Now, the middle no. between 70^2 & 80^2 is 75^2.

So, $75^2 = 5625$
But $5041 < 5625$
So, Out of 71 and 79, 71 is right