**Course: SBI Clerk Mains**

**Subject: Caselet, Missing Series and Approximation**

**Time:15 Minutes**

**Published Date: 24th May 2020**

**Directions (1 – 5)** What should come in place of the question mark (?) in the following number series?

Q1. 628, 617, 595, 562, 518, ?

(a) 474

(b) 452

(c) 461

(d) 463

(e) 467

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q2. 200, 104, 56, 32, 20 ?

(a) 12

(b) 14

(c) 16

(d) 18

(e) 10

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q3. 2, 7, 23, 72, 220, ?

(a) 600

(b) 665

(c) 650

(d) 627

(e) 645

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q4. 53 477 ? 16695 50085

(a)3399

(b)3339

(c)3345

(d)3359

(e)none of these

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

Q5. 677376 10584 392 ? 49

(a)98

(b)196

(c)49

(d)392

(e)none of these

L1Difficulty 3

QTags MISSING SERIES Quant

QCreator Deepak Rohilla

**Direction (6 – 10):** Read the direction carefully and answer the questions give below.

Veer opened a ‘Hen reproductive’ firm in 2017 and in his firm four types of hens, i.e. P, Q, R & S. Out of total hens some are of good quality & some are of bad quality. 40% of total hens in firm are S types and total Q type & R type of hens together in firm are 12.5% more than total S type of hens in the firm. Total S type of hens in firm are 960 and bad quality of hens of S type in firm are 12.5 % less than total good quality of same type of hens, while ratio of total good quality of S type of hens in firm to total bad quality of Q type of hens in firm is 64 : 27. Total good quality of R type of hens in firm are 50% of total bad quality of S type of hens and total bad quality of R type of hens are 320 less than total good quality of Q type of hens in firm. Total good quality of P type of hens in firm are 40% more than that of total bad quality of P type of hens.

Q6. Total bad quality of hens of S type are what percent less than total good quality of hens of Q type?

(a) 2 $\frac{2}{3}\%$

(b) $\frac{2}{3}\%$

(c) 3 $\frac{2}{3}\%$

(d) 1 $\frac{1}{3}\%$

(e) 6 $\frac{2}{3}\%$

L1Difficulty 3

QTags Caselet

QCreator Deepak Rohilla

Q7. Find difference between average number of good quality of hens of P type & R type and average number of bad quality of hens of Q type & S type?

(a) 115

(b) 125

(c) 130

(d) 135

(e) 145

L1Difficulty 3

QTags Caselet

QCreator Deepak Rohilla

Q8. Find the ratio of total bad quality of hens of Q type to total good quality of hens of R type ?

(a) 26 : 27

(b) 27 : 31

(c) 27 : 29

(d) 27 : 28

(e) None of these

L1Difficulty 3

QTags Caselet

QCreator Deepak Rohilla

Q9. Find average of all good quality of hens in the firm?

(a) 327

(b) None of these

(c) 356.5

(d)355

(e)345.5

L1Difficulty 3

QTags Caselet

QCreator Deepak Rohilla

Q10. Total good quality of hens in firm is approximately what percent of total bad quality of hens in the firm?

(a) 142%

(b) 140%

(c) 136%

(d) 156%

(e) 146%

L1Difficulty 3

QTags Caselet

QCreator Deepak Rohilla

**Directions (11-15):** What approximate value will come in place of question mark (?) in the given questions: (You are not expected to calculate the exact value.)

Q11. 619.992 – 134.99 ÷ 14.998 – (9.01)² = ?

(a) 720

(b) 530

(c) 650

(d) 690

(e) 490

L1Difficulty 3

QTags Approximation

QCreator Deepak Rohilla

Q12. 449.97 ÷ 15.02 + 208.08 ÷ 8.01 – 16.01 = ?

(a) 120

(b) 60

(c) 100

(d) 80

(e) 40

L1Difficulty 3

QTags Approximation

QCreator Deepak Rohilla

Q13. $4^{?}×\sqrt{226}=239.998÷8.001+929.99$

(a) 4

(b) 5

(c) 2

(d) 3

(e) 1

L1Difficulty 3

QTags Approximation

QCreator Deepak Rohilla

Q14. ? % of (140.06 × 7.99 – 679.92) = 330.01

(a) 75

(b) 90

(c) 80

(d) 50

(e) 60

L1Difficulty 3

QTags Approximation

QCreator Deepak Rohilla

Q15. 40% of 859.9 + 87.89 ÷ 7.99 = ?

(a) 398

(b) 286

(c) 412

(d) 215

(e) 355

L1Difficulty 3

QTags Approximation

QCreator Deepak Rohilla

**Solutions**

S1. Ans (d)

Sol.

628 - 11$×$1=617

617 - 11$×$2=595

595 - 11$×$3=562

562 – 11$×$4=518

518 - 11$×$5=463

S2. Ans (b)

Sol.

$$\frac{200+8}{2}=104$$

$$\frac{104+8}{2}=56$$

$$\frac{56+8}{2}=32$$

$$\frac{32+8}{2}=20$$

$$\frac{20+8}{2}=14$$

S3. Ans (b)

Sol. 7=2×3+1

 23=7×3+2

72=23×3+3

220=72×3+4

220×3+5=665

S4. Ans.(b)

Sol. $×9, ×7,×5,×3……….$

S5. Ans.(c)

Sol. $÷$43, $÷$33  ,$÷2$3, $÷1$3…………

**S (6 – 10) :**

Let total hens in firm = 100a

Total S type of hens in firm = 100a $×\frac{40}{100}=40a$

Total Q type & R type of hens in firm = 100a $×\frac{9}{8}=45a$

Total P type of hens = 100a $–$ (40a + 45a) = 15a

Given, 40a = 960

 a = 24

Total good quality of hens of S type = 40 $×24×\frac{8}{15}=512$

Total bad quality of hens of S type = 960 $– 512=448$

Total bad quality of hens of Q type = 512 $×\frac{27}{64}=216$

Total good quality of hens of R type = 448 $×\frac{1}{2}=224$

Let total bad quality of hens of R type be x

So, total good quality of hens of Q type be (x + 320)

Given, x + x + 320 = 45 $×24-\left(216+224\right)$

2x = 320

x = 160

Total bad quality of hens of R type = 160

Total good quality of hens of Q type = 160 + 320 = 480

Total P type of hens in firm = 24 $×100-\left(960+1080\right)=360$

Let total bad quality of hens of P type = 5x

So, total good quality of hens of P type = 7x

Total good quality of hens of P type = 360 $×\frac{7x}{12x}= $210

Total bad quality of hens of Q type = 360 $- 210=150$

|  |  |  |
| --- | --- | --- |
|  **Types**  |  **Good quality**  | **Bad quality**  |
|  **P** |  210 |  150 |
|  **Q** |  480 |  216 |
|  **R** |  224 |  160 |
|  **S** |  512 |  448 |

S6. Ans(e)

Sol.

Required percentage = $\frac{480-448}{480}$ $×100$

 = $\frac{32}{480}$ $×100$ = 6 $\frac{2}{3}\%$

S7. Ans(a)

Sol.

Average number of good quality of hens of P type & R type = $\frac{210+224}{2}$ = 217

Average number of bad quality of hens of Q type & S type = $\frac{216+448}{2}$ = 332

Required difference = 332 $-217=115$

S8. Ans(d)

Sol.

Required ratio = $\frac{216}{224}$

 = 27 : 28

S9. Ans(c)

Sol.

Required average = $\frac{210+480+224+512}{4}=\frac{1426}{4}=356.5$

S10. Ans(e)

Sol.

Total good quality of hens in firm = 210 + 480 + 224 + 512 = 1426

Total bad quality of hens in firm = 150 + 216 + 160 + 448 = 974

Required percentage = $\frac{1426}{974}$ $×100$

 = 146.40 $≈146\%$

S11. Ans.(b)

Sol.

? = 619.992 – 134.99 ÷ 14.998 – (9.01)² ≈ 620 – 135 ÷ 15 – (9)²$≈530$

S12. Ans.(e)

Sol.

? = 449.97 ÷ 15.02 + 208.08 ÷ 8.01 – 16.01 ≈ 450 ÷ 15 + 208 ÷ 8 – 16

= 30 + 26 – 16 = 30 + 10 = 40

S13. Ans.(d)

Sol.

$$4^{?}×\sqrt{226}=239.998÷8.001+929.99$$

$$or, 4^{?}×\sqrt{225}≈240÷8+930$$

$$Or, 4^{?}×15≈30+930=960$$

$$or, 4^{?}≈\frac{960}{15}=64=4^{3}$$

$$or, 4^{?}≈4^{3}$$

$$∴ ?≈3$$

S14. Ans.(a)

Sol.

?% of (140.06 ×7.99 – 679.92)

$$=330.01$$

$$or, \frac{?×(140×8-680)}{100}≈330$$

$$or, ? ×\left(1120-680\right)≈330×100$$

or, ? × 440 $≈$ 33000

$$∴ ?=\frac{33000}{440}=75 $$

S15. Ans.(e)

Sol.

? = 40% of 859 + 87.89 ÷ 7.99

≈ $\frac{40×860}{100}+88÷8$

≈ 344 + 11 = 355