Quiz Date: 21st August 2020

**Directions (1-5):** In the following questions two quantities are given in each question. Compare the numeric value of both the quantities and answers accordingly

Q1.

**Quantity I** – Value of R. A man invested Rs. 5400 at the rate of R% p.a. on simple interest and get Rs. 2025 as interest after  $2\frac{1}{2}$  years.

**Quantity II –** Value of X, Ram invested Rs. 6400 on compound interest at the rate of X% and gets an amount of Rs. 8464 as interest after two years.

- (a) Quantity I > Quantity II
- (b) Quantity I < Quantity II
- (c) Quantity I ≥ Quantity II
- (d) Quantity I ≤ Quantity II
- (e) Quantity I = Quantity II or no relation

Q2.

**Quantity I:** Simple interest earned in three years at same rate. Difference between CI and SI for two years is 125 which is 25% of the amount invested.

Quantity II: Rs. 725

- (a) Quantity I > Quantity II
- (b) Quantity II > Quantity I
- (c) Quantity I ≥ Quantity II
- (d) Quantity II ≥ Quantity I
- (e) Quantity I = Quantity II or relation can't be established
- Q3. Speed of train A is 72 km/hr whose length is half of length of a platform & crosses the platform in 12 sec.

**Quantity I:** 30% of sum of length of train A and length of platform.

**Quantity II:** Length of train B which travel with 50% of speed of train A and crosses the train A in 10 sec when coming from opposite direction.

- (a) Quantity I > Quantity II
- (b) Quantity II > Quantity I
- (c) Quantity I ≥ Quantity II
- (d) Quantity II ≥ Quantity I
- (e) Quantity I = Quantity II or relation can't be established
- Q4. **Quantity I:** Number of ways in which a four-digit number can be formed from digits 0, 1, 2, 4, 5, 6. If repetition allowed.

**Quantity II:** No. of ways in which the letters of word 'ABHISHEK' be arranged so that both 'H' never comes together.

- (a) Quantity I > Quantity II
- (b) Quantity II > Quantity I
- (c) Quantity I ≥ Quantity II
- (d) Quantity II ≥ Quantity I

- (e) Quantity I = Quantity II or relation can't be established
- Q5. **Quantity I**: Speed of faster trains(km/hr). Ratio of speed of two train is 5:7 and length of two trains is 120 m & 160 m respectively. Faster train crosses slower train in 28 sec if running in same direction.

**Quantity II**: Speed of Car(km/hr).. Distance between two cities A & B is 630 km. A car starts from city A towards city B with usual speed and after covering  $\frac{1}{3}rd$  of distance, speed of car increased by 25% and its take 1 hours 20 minutes less than what its take at its usual speed.

- (a) Quantity I > Quantity II
- (b) Quantity II > Quantity I
- (c) Quantity I ≥ Quantity II
- (d) Quantity II ≥ Quantity I
- (e) Quantity I = Quantity II or relation can't be established



Directions (6-15): What will come in place of question mark (?) in the following number series?

06. 1.001, 0.991, 0.971, 0.941, 0.901

- (a) 0.841
- (b) 0.851
- (c) 0.861
- (d) 0.871
- (e) 0.0851
- Q7. 169, ?, 361, 529, 841, 961
- (a) 196
- (b) 225
- (c) 250
- (d) 289
- (e) 324
- Q8. 0, 4, 18, 48, ?, 180
- (a) 48
- (b) 60

- (c) 100
- (d) 50
- (e) 120
- Q9. 3645, 1215, 405, 135, ?, 15, 5
- (a) 75
- (b) 45
- (c) 65
- (d)55
- (e) 27
- Q10.15, 30, ?, 40, 8, 48
- (a) 10
- (b) 20
- (c) 18
- (d) 12
- (e) 60
- Q11. 53, 51.4, 48.2, 41.8, ?, 3.4
- (a) 31
- (b) 30
- (c) 29
- (d) 29.4
- (e) 29.6
- Q12. 6, 4, 5, 11, ?, 189
- (a) 39
- (b) 45
- (c) 34
- (d)36
- (e) 41
- Q13. 80, 68, 62, 56, ?, 29
- (a) 43
- (b) 44
- (c) 45
- (d) 46
- (e) 47
- Q14. 117, 140, 169, 200, ?, 278
- (a) 235
- (b) 237
- (c) 239
- (d) 241
- (e) 243

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Q15. ?, 8, 14, 38, 98, 218

- (a) 2
- (b) 6
- (c) 10
- (d) 8
- (e) 4

#### **Solutions**

S1. Ans(e)

Sol.

Quantity I -

Quantity I -  
S.I = 
$$\frac{P \times R \times T}{100}$$
  
R =  $\frac{2025 \times 100}{6400 \times 2.5}$ 

$$R = \frac{2025 \times 100}{6400 \times 2.5}$$

R = 15%

# Quantity II -

Total interest of two year =  $\frac{8464-6400}{6400} \times 100$ = 32.25

32.25% is equivalent CI of two year at 15%

Note: R% equivalent for two years is  $R + R + \frac{R \times R}{100}$ 

$$15 + 15 + \frac{15 \times 15}{100} = 32.25\%$$

So R = 15%

So, Quantity I = Quantity II



S2. Ans. (a)

Sol.

We know—

Difference for two year (D) =  $\frac{PR^2}{100^2}$ 

$$125 = \frac{500 \times R^2}{100^2}$$

$$\therefore R = 50\%$$

## **Quantity I:**

SI = 
$$\frac{P \times R \times t}{100}$$
  
=  $\frac{500 \times 50 \times 3}{100}$  = Rs. 750

∴ Quantity I > Quantity II

Sol.

Speed of train A in m/sec.

$$= 72 \times \frac{5}{18}$$

= 20 m/sec

Let length of train A be  $x\ m$ 

∴ length of platform = 2x m

$$ATQ, 
\frac{x+2x}{12} = 20$$

$$\therefore x = 80 \text{ m}$$

# Quantity I:

30% of length = 
$$\frac{30}{100}$$
 [80 + 160] = 72 m

# **Quantity II:**

Let length of train B be y m

ATQ,

$$\frac{80+y}{30} = 10$$

y = 220 m

Quantity II > Quantity I

## S4. Ans. (b)

Sol.

Quantity I:

Required ways =  $5 \times 6 \times 6 \times 6 = 1080$ 

Quantity II:

Required ways =  $\frac{8!}{2!}$  – 7!

$$= 20,160 - 5040$$

Quantity II > Quantity I

### S5. Ans. (a)

#### Quantity I -

Let speed of train be 5x and 7x respectively

$$(7x - 5x) = \frac{120 + 160}{28}$$

$$2x = 10$$

$$x = 5$$

Speed of faster train =  $5 \times 7 \times \frac{18}{5} = 126 \, km/hr$ 

# Quantity II -

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Let speed of car be x km/hr

$$\frac{\frac{630}{x} - (\frac{210}{x} + \frac{420 \times 4}{5x}) = \frac{4}{3}}{\frac{3150 - 2730}{5x} = \frac{4}{3}}$$
$$20x = 1260$$

$$x = 63 \text{ km/hr}$$

$$x = 63 \text{ km/hr}$$

Quantity I > Quantity II

S6. Ans.(b)

Sol.

Pattern is -0.01, -0.02, -0.03, -0.04....

S7. Ans.(d)

Series is 132, 172, 192, 232, 292, 312, 372,

(square of prime numbers)

$$\therefore$$
 ? = 17<sup>2</sup> = 289

S8. Ans.(c)

Sol.

Series is 
$$1^3 - 1^2 = 0$$

$$2^3 - 2^2 = 4$$

$$3^3 - 3^2 = 18$$

$$4^3 - 4^2 = 48$$

$$5^3 - 5^2 = 100$$

$$6^3 - 6^2 = 180$$

S9. Ans.(b)

Sol.

Pattern is 
$$\div 3, \div 3, \div 3, \div 3.....$$

S10. Ans.(a)

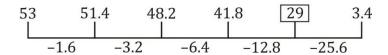
Sol.

Pattern is 
$$\times 2$$
,  $\div 3$ ,  $\times 4$ ,  $\div 5$ ,  $\times 6$ 

$$\therefore$$
 ? = 30  $\div$  3 = 10

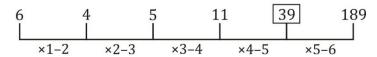
S11. Ans.(c)

Sol.



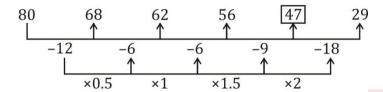
S12. Ans.(a)

Sol.



S13. Ans.(e)

Sol.



S14. Ans.(b) Sol.





S15. Ans.(d) Sol.

