Quiz Date: 7th April 2020

Q1. Efficiency of Ram is 25% more than Shyam who completes a task in 60 days. Ghanshyam takes $6\frac{2}{3}$ days less than the days taken by Ram and Shyam together to complete the work. If Ram and Shyam work for 16 days, after that both left the task then find in how many days Ghanshyam will complete remaining work?
(a) 6 days
(b) 8 days
(c) 4 days
(d) 5 days
(e) 10 days

Q2. Shikha invested 32000 Rs. at simple interest for 2 years at the rate of R% and gets an interest of Rs.8000. If he invested total amount (Principle + Interest) in a scheme, which offered compound interest at the rate of (R%+2.5%) then find total compound interest obtained by Shikha after 2 years?
(a) 12600Rs.
(b) 12800Rs.
(c) 14400 Rs.
(d) 12000 Rs.
(e) 12900Rs.

Q3. Speed of current is 10 km/hr and speed of a motor boat is 80% more than speed of current. Motor boat travels 280 km downstream with its usual speed, after that it's increased speed by 's' kmph and travelled for another 280 km then it returns and covers 560 km in upstream. If boat complete whole journey downstream to upstream in 45 hr, then find the value of 's'?
(a) 10 km/hr
(b) 8 km/hr
(c) 6 km/hr
(d) 12 km/hr
(e) 4 km/hr

Q4. X and Y together can do a work in 10 days. Z can destroy the same work in 28 days. X and Y started the work and work for 12 days simultaneously Z started destroying the work for 12 days. After that X and Z leave and Y complete the remaining work in 4 days in how many days X alone can complete the same work.
(a) $23\frac{2}{3}$ days
(b) 23 days
(c) 20 days
(d) 15 days
(e) $23\frac{1}{3}$ days

Q5. A shopkeeper sold an article at a 10% discount at mark price. He found that he earns a profit of $16\frac{2}{3}\%$ but instead of calculating profit on cost price he calculates it on the sum of cost price and selling price. If cost price of article is 1350 then find out the mark price.
(a) 2100
(b) 2300
(c) 1890
(d) 1500
(e) None of these

Q6. Two pipes A and B can fill a cistern in 12 minutes and 15 minutes respectively but a third pipe C can empty the full tank in 6 minutes. A and B are kept open for 5 minutes in the beginning and then C is also opened. In what time will the cistern be emptied?
(a) 30 minutes
(b) 33 minutes
(c) 37.5 minutes
(d) 45 minutes
(e) None of these

Q7. A jar contains mixture of liquid P and Q in the ratio 4 : 1. If 10ℓ of mixture taken out and same amount of liquid Q poured into jar the ratio becomes 2 : 3 then find how many liters of liquid P contained in jar initially?
(a) 16 L
(b) 14 L
(c) 12 L
(d) 10 L
(e) 48 L

Q8. A train travelling at 144 km/hr crosses another train, having 30 meter less length and travelling in opposite direction at 126 km/hr in 6 seconds. If longer train cross a railway platform in 20 second then find smaller train will cross same platform in how many seconds?
(a) 22 seconds
(b) 24 seconds
(c) 28 seconds
(d) 32 seconds
(e) 30 seconds

Q9. The surface area of a sphere is 423.5 cm² less than total surface area of a hemisphere. If ratio between radius of hemisphere and sphere is 3 : 2, then find the radius of hemisphere?
(a) 5.5 cm
(b) 5 cm
(c) 4 cm
(d) 7 cm
(e) 10.5 cm

Q10. Manish and Rituraj invested Rs. 12000 and Rs. 16000 in a business. After four months Manish and Rituraj both added Rs. 4000 in their initial investment. At the end of one year the total profit was Rs. 172500, if Manish and Rituraj invested their profit share on compound interest at the rate of 20% and 10% respectively then find difference between interests got by both at the end of two years?
(a) Rs.10250
(b) Rs.11520
(c) Rs.12210
(d) Rs.13110
(e) Rs.12660

Directions (11 – 15): What will come in the place of question (?) marks in the given number series:
Q11. 616,   56,   504,   72,   ?,   120
(a) 324
(b) 348
(c) 384
(d) 360
(e) 380

Q12. 67,   1091,   835,   899,   883,   ?
(a) 889
(b) 887
(c) 883
(d) 894
(e) 896

Q13.   5,   8,   16,   40,   88,   ?
(a) 198
(b) 202
(c) 205
(d) 206
(e) 208

Q14. 16   ?,   32,   128,   64,   256
(a) 64
(b) 60
(c) 56

(d) 48
(e) 36

Q15. 8, 288, 512, 680, 792, ?
(a) 842
(b) 840
(c) 846
(d) 848
(e) 850

Solutions

S1. Ans.(b)
Sol.
Efficiency of Ram :Shyam = 125 : 100
= 5 : 4
Ram takes $= \frac{60}{5} \times 4 = 48$ days
Let total work = 60×4= 240 unit
Ram and Shyam takes together $= \frac{240}{(5+4)} = \frac{80}{3}$ days
Ghanshyam takes $= \frac{80}{3} - \frac{20}{3} = 20$ days
Efficiency of Ghanshyam $= \frac{240}{20} = 12$ unit/day
Rams and Shyam 16 days work
16 × (5 + 4)= 144 unit
Remaining work by Ghanshyam $= \frac{240-144}{12}$
$= \frac{96}{12} = 8$ days

RBI ASSISTANT
COMPELTE
E-KIT
English | Quant | Reasoning
DI | Puzzle | Computer | Banking
(English Medium)

S2. Ans.(e)
Sol.
Let shikha invested at the rate of R%
ATQ—
R $= \frac{8000 \times 100}{32000 \times 2}$
R = 12.5%
New Rate = 12.5 + 2.5 = 15%

Total amount = 32000 + 8000 = 40000 Rs.

Equivalent CI of two years at the rate of 15%

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

= 32.25%

Required compound interest $= 40000 \times \frac{32.25}{100}$ = 12900 Rs.

S3. Ans (d)

Sol.

speed of boat in still water $= \left(10 + 10 \times \frac{80}{100}\right)$ km/hr

$= 18$ km/hr

ATQ—

$\frac{280}{(18+10)} + \frac{280}{(18+10)+s} + \frac{560}{(18-10)+s} = 45$

$\frac{280}{28+s} + \frac{560}{8+s} = 35$

$\frac{8}{28+s} + \frac{16}{8+s} = 1$

$64 + 8s + 448 + 16s = 224 + 28s + 8s + s^2$

$s^2 + 12x - 288 = 0$

$s = 12$ km/hr

S4. Ans.(e)

Sol.

X and Y can do a work → 10 days

Z can destroy the work → 28 days

X + Y (10) — 14 unit/day

→ 140 unit work

Z (28) — 5 unit/day

After 12 days

14 × 12 – 5 × 12 = 108-unit work done

Y complete the work in 4 days

$\frac{140 - 108}{4} = 8$ unit/day (Y's efficiency)

X's efficiency = 14 – 8 = 6 unit/days

X can complete work

$= \frac{140}{6}$ day $= 23\frac{1}{3}$ days

S5. Ans.(a)

Sol.

Let cost price of article is = 100

And profit = x

ATQ,

$\frac{x}{100+(100+x)} = 16\frac{2}{3}\%$ [100 + x ⇒ S. P.]

$\frac{x}{200+x} = \frac{1}{6}$

x = 40

profit percent = 40%

S.P. = 140

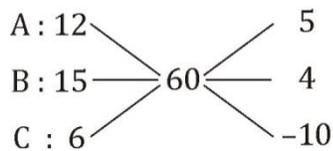Mark price $= \frac{140}{9} \times 10 = \frac{1400}{9}$

Now

$100 \rightarrow 1350$

$\frac{1400}{9} \rightarrow \frac{1350}{100} \times \frac{1400}{9} = 2100$

S6. Ans.(d)

Sol.

In 5 minutes,

Pipe filled = 45 units

A + B – C = –1 unit.

Time required to empty $= \frac{45}{1} = 45$ minutes

S7. Ans.(a)

Sol.

Let total mixture in jar = 5x

ATQ,

$\frac{4x - 8}{x - 2 + 10} = \frac{2}{3}$

12x – 24 = 2x + 16

10 x = 40

x = 4

Initially quantity of liquid P = 4 × 4 = 16 ℓ

S8. Ans(a)

Sol.

Let length of both trains be L meters and (L – 30) meters respectively

ATQ,

$(144 + 126) \times \frac{5}{18} = \frac{L + (L - 30)}{6}$

450 = 2L – 30
L = 240
Smaller train length = 210 meters
Let length of platform be P meters
ATQ,
$144 \times \frac{5}{18} = \frac{240+P}{20}$
P = 800 – 240 = 560 meters
Let required time = T
ATQ,
$126 \times \frac{5}{18} = \frac{210+560}{T}$
$T = \frac{770}{35}$
T = 22 sec

S9. Ans.(e)
Sol.
Total surface area of sphere = $4\pi r^2$
Total surface area of hemisphere = $3\pi r^2$
Let radius of hemisphere and sphere be $3x$ cm
And $2x$ cm respectively.
ATQ—
$3\pi r^3 – 4\pi r^2 = 423.5$ cm^2
$3 \times \frac{22}{7} \times (3x)^2 – 4 \times \frac{22}{7} \times (2x)^2 = 423.5$
$x = 3.5$ cm
Radius of hemisphere = $\frac{21}{2}$ cm =10.5

S10. Ans.(d)
Sol.
Ratio of profit of Manish and Rituraj
= [(12000 × 4)+ (12000 + 4000) × 8] : [(16000 × 4) + (16000 + 4000)× 8]
= 17600 : 224000
= 11 : 14
Profit share of manish = $172500 \times \frac{11}{25}$
= Rs.75900

Profit share of Rituraj
= $172500 \times \frac{14}{25}$
= 96600 Rs
Equivalent CI of two year at the rate of 20% = $20 + 20 + \frac{20\times20}{100}$
= 44%
Equivalent CI of two year at 10% = $10 + 10 + \frac{10\times10}{100}$
= 21%

Required difference between interest
$$= 75900 \times \frac{44}{100} - 96600 \times \frac{21}{100}$$
= 13110

S11. Ans(d)
Sol.
Pattern of series –
$616 \div 11 = 56$
$56 \times 9 = 504$
$504 \div 7 = 72$
$? = 72 \times 5 = 360$
$360 \div 3 = 120$

S12. Ans(b)
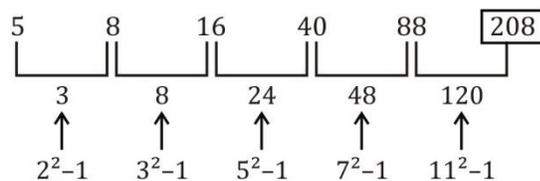Sol.
Pattern of series –
$67 + 4^5 = 1091$
$1091 - 4^4 = 835$
$835 + 4^3 = 899$
$899 - 4^2 = 883$
$? = 883 + 4^1 = 887$

S13. Ans.(e)
Sol.

S14. Ans(a)
Sol
Pattern of series is –
$\times 4, \div 2, \times 4, \div 2, \times 4, \dots\dots$
So, $? = 16 \times 4 = 64$

S15. Ans(d)
Sol.
Pattern of series is –
$+ 56 \times 5, + 56 \times 4, + 56 \times 3, + 56 \times 2, 56 \times 1$
So, $792 + 56 \times 1 = 848$

For any Banking/Insurance exam Assistance, Give a Missed call @ 01141183264