Compound Interest Asked Questions in RRB NTPC

Instructions

For the following questions answer them individually

Question 1

What is the sum which earns Rs. 420 as compound interest in second year at the annual interest rate of 5% ?

A   Rs. 4,000

B   Rs. 42,000

C   Rs. 8,000

D   Rs. 21,000

   Answer: C

Explanation:

x * 1.05 * 1.05 - x * 1.05 = 420

implies x = 8000 Rs.

Question 2

On what sum of money will the compound interest for 3 years at 5% per annum amount to Rs. 630.50 ?

A   Rs. 1200

B   Rs. 1261

C   Rs. 4000

D   Rs. 3000

   Answer: C

Explanation:

$P(1 + .05)^3$ - P= 630.5

Solving for P, we get P = 4000

Question 3

A certain amount which was loaned on simple interest doubled in 10 years Then the amount received is loaned on compound interest for another 2 years on the same rate What is the total rise in the amount after 12 years with the initial principal amount ?

A   42%

B   142%

C   242%

D   150%

   Answer: B

Explanation:

The amount doubled in 10 years. So, the interest = principle.

So, rt/100 = 1

r = 10% pa

Now compound interest = ?

2P $(1 + .1)^2$ = 2P x 1.21 = 2.42P

Total rise is P to 2.42P = rise of 142%

Question 4

At what rate of compound interest a sum will be $\frac{25}{16}$ times of itself in 2 years?

A   16%

B   18%

C   20%

D   25%

   Answer: D

Explanation:

P $* \left(1 + \frac{r}{100}\right)^2 = P * \frac{25}{16}$

Implies $\left(1 + \frac{r}{100}\right)^2 = \frac{25}{16}$

$1 + \frac{r}{100} = \frac{5}{4}$

r = 25%

Question 5

If the interest is compounded annually and the compound interest after 3 years at 10% per annum on a sum is Rs. 331, the principal is

A   Rs. 900

B   Rs. 1000

C   Rs. 1050

D   Rs. 1100

   Answer: B

Explanation:

$P \times \left(1 + \frac{10}{100}\right)^3$ = P + 331

1.331P = P + 331

So, P = 1000

Question 6

What will be the ratio of amount and the principal in n years at 5% p.a. rate of compound interest ?

A $(22)^n : (21)^n$

B $(20)^n : (21)^n$

C $(21)^n : (20)^n$

D   None of these

   Answer: C

Explanation:

amount of compound interest=A=P(1 + r/100)^t where P=Principal,r=rate of interest and t=time

$\therefore$ A/P=$(1 + .05)^n$

=$(21/20)^n$

Question 7

A sum of money put out at compound interest amounts to Rs. 16900 in 2 years and to Rs. 17576 in 3 years. Find the rate of interest per annum.

A   4%

B   5%

C   10%

D   6%

   Answer: A

Explanation:

Let x be the principal amount and r be the compound interest.

The amount after first year =$x + xr$

the amount after second year=$(x + xr) + (xr + xr^2) = x + 2xr + xr^2 = x(1 + r)^2$=16900 -(1)

Similarly, the amount after third year =$x(1 + r)^3$= 17576 -(2)

dividing 2 by 1 we get,

1+r=1.04

r=.04

Thus the interest is 4%.

Question 8

What is the compound interest on Rs. 48,000 for 2 years at 20 % p.a., if interest is compounded annually?

A   Rs. 69,120

B   Rs. 21,120

C   Rs. 76,800

D   Rs. 72,000

   Answer: B

Explanation:

Amount = $P(1 + \frac{r}{100})^n$

where

P = Principal

r = rate of interest

n = number of years

Amount after two years = $48000(1 + \frac{20}{100})^2$ = 69120

Compound Interest = 69120 - 48000 = 21,120

So , the answer would be option b)Rs. 21,120

Question 9

The simple interest on a certain sum of money invested at a certain rate for 2 years amounts to Rs. 1200 The compound interest on the same sum of money invested at the same rate of interest for 2 years amounts to Rs. 1290. What was the principal?

A Rs. 12000

B Rs. 16000

C Rs. 6000

D Rs. 4000

Answer: D

Explanation:

Let principal be P and rate of interest be r.

Simple interest for 2 years = 1200

Simple interest for 1 year = 600

Difference in compound interest and simple interest = 90 , which is interest earned on the interest of first year.

$\frac{600 \times r}{100} = 90$ => r= 15

$\frac{P \times 15}{100} = 600$ =>P = 4000

So, the answer would be option d)Rs. 4000

20 RRB NTPC Mocks-Tests Rs.149

Question 10

A sum of Rs. 2000 at 40% per annum compounded annually. Calculate the interest for the third year at compound interest.

A 1500

B 1600

C 1568

D 1750

Answer: C

Explanation:

When a sum of amount is compounded anually, then there after each interest which is gained on the amount is added with the principal amount and then the next yera's principal is generated, and then on the second year the interest is calculated on the basis of the new principal.

Explanation:

so in order to calculate the interest of the amount Rs 2000/- on third year we will do the following:-

interest 1st year = $\frac{2000 \times 40}{100} = 800$

new principal = 2800

interest on 2nd year = $\frac{2800 \times 40/}{100} = 1120$

new principal = 3920

interest on 3rd year = $\frac{3420 \times 40}{100} = 1568$

RRB NTPC Previous Papers (Download PDF)

RRB NTPC Free Mock Tests

20 RRB NTPC Mocks-Tests Rs.149

Daily Free RRB Online Tesrt

RRB Group-D Previous Papers

RRB Free Videos (You Tube Channel)

RRB General Science Notes (Download Pdf)

RRB GK Material (Download Pdf)

RRB Group-D Free Mock Tests

20 RRB Group-D Mocks - Just Rs. 149

790+ Mocks - Just Rs. 194. Enroll To Cracku Pass