120+ SIMPLE INTEREST & COMPOUND INTEREST QUESTIONS WITH SOLUTION

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1. Out of a sum of Rs 850, a part was lent at 6% SI and the other at 12% SI. If the interest on the first part after 2 years is equal to the interest on the second part after 4 years, then the second sum is
   A) Rs350
   B) Rs280
   C) Rs170
   D) Rs220
   E) None

   View Answer

   Option C
   Solution:
   Let the first part be x then second part be 850-x.
   (x*6*2)/100 = [(850-x)*12*4]/100
   x= 850*4 -4x
   5x=850*4
   x=680
   Then second part 850-680=Rs 170.

2. A sum of Rs. 550 was taken as a loan. This is to be paid back in two equal installments. If the rate of interest be 20% compounded annually, then the value of each installment is :
   A) Rs360
   B) Rs280
   C) Rs250
   D) Rs320
   E) None

   View Answer

   Option A
   Solution:
   Let x = equal installment at the end of one year(rate% annually) .
   Now 1st year,
   P =550,
   Interest = (550*20*1)/100 = 110.
   Now, at the beginning of 2nd year,
   P =550 + 110 – x
   Interest at the end of 2nd year,
   = [(660 – X) *20*1]/100 = 132 –x/5.
   Hence,total installment,
   2x = 550 + 110 + 132 – x/5
   2x + x/5= 792
   x = 360.

3. A certain sum of money amounts to Rs.1300 in 2 years and to Rs. 1525 in 3.5 years. Find the sum and the rate of interest.
   A) Rs850, 10%
   B) Rs900, 12%
   C) Rs800, 13%
   D) Rs1000,15%
   E) None

   View Answer

   Option D
   Solution:
   1525-1300= 225 for 1.5 yrs (3.5-2)
   so for one yr 225/1.5= 150
   then for 2 yrs interest is 150+150=300
   Then principal 1300-300=1000.
   Now 150/1000*100= 15%

4. The simple interest on a certain sum of money for 3 years at 8% per annum is half the compound interest on Rs. 4000 for 2 years at 10% per annum. The sum placed on simple interest is:
   A) Rs1800
   B) Rs1750
   C) Rs2000
   D) Rs1655
   E) None

   View Answer

   Option B
   Solution:
   CI =[4000 *(1 + 10/100)^2 – 4000]
   =4000*11/10*11/10 – 4000
   =Rs840.
   Then Sum in SI 420 (ie840/2)=
   (P*3*8)/100
   =Rs1750.

5. A Woman took a loan of Rs. 15,000 to purchase a mobile. She promised to make the payment after three years. The company charges CI at 20% per annum for the same. But, suddenly the company announces the rate of interest as 25% per annum for the last one year of the loan period. What extra amount she has to pay due to the announcement of new rate of interest?
   A) Rs1230
   B) Rs1135

C) Rs1080
D) Rs1100
E) None

View Answer

Option C
Solution:
15,000 *(1+20/100)^2[(1+25/100) – (1+20/100)] 15,000*120/100*120/100 [125/100-120/100] 15000*144/100(5/100) 150*144*5/100=1080

6. The ratio of the amount for two years under compound interest annually and for one year under simple interest is 6:5. When the rate of interest is same, then the value of rate of interest is:
A) 20%
B) 15%
C) 18%
D) 22%
E) None

View Answer

OptionA
Solution:
[P(1+r/100)^2]/[P(1+r*1/100)]=6/5
1+r/100=6/5
r/100=1/5
r=20%

7. An automobile financier claims to be lending money at simple interest, but he includes the interest every six months for calculating the principal. If he is charging an interest of 10%, the effective rate of interest becomes:
A) 9.5%
B) 8%
C) 10.25%
D) 10%
E) None

View Answer

Option C
Solution:
Let the sum be Rs. 100. Then,
S.I. for first 6 months = 100*10*1/100*2 =Rs5

S.I. for last 6 months = 105*10*1/100* 2 =Rs5.25
So, amount at the end of 1 year = Rs. (100 + 5 + 5.25) = Rs. 110.25
Effective rate = (110.25 – 100) = 10.25%

8. A person borrows Rs. 3000 for 2 years at 5% p.a. simple interest. He immediately lends it to another person at 6 ¼ %p.a for 2 years. Find his gain in the transaction per year.
A) Rs42
B) Rs39.25
C) Rs35
D) Rs37.5
E) None

View Answer

Option D
Solution:
Gain in 2 yrs =[(3000*25/4*2/100)-(3000*2*5/100)] 375-300=75.
Gain in 1yr=75/2=37.5

9. If the difference between CI and SI earned on a certain amount at 20% pa at the end of 3 years is Rs.640, find out the principal.
A) Rs5500
B) Rs6500
C) Rs4500
D) Rs5000
E) None

View Answer

Option D
Solution:
SI-CI for 3 yrs =Pr^2/100^3*(300+r)
640=P*20^2/100^3*320
640=(P*20*20/100*100*100)*320
P=Rs5000

10. If the simple interest on a certain sum of money is 4/25 of the sum and the rate per cent equals the number years, then the rate of interest per annum is:
A) 4%
B) 5%
C) 8%
D) 10%
E) None

View Answer

Option A
Solution:
Let the principal be Rs x.
Then the SI =4/25x
Rate of interest = Time
r= (100*4/25x)/ x*r
r^2 =400/25
r=20/5=4%

1. A sum of Rs. 10,000 is borrowed at 8% per annum compounded annually. If the amount is to be paid in three equal installments, the annual installment will be
A) Rs 3520.25
B) Rs 3880.335
C) Rs 4200.15
D) Rs 4530.225
E) None

View Answer

Option B
Solution:
Let each installment be x,
10000=x/(1+8/100) + x/(1+8/100)^2 + x/(1+8/100)^3
10000=x{25/27 + (25/27) ^{2} + (25/27) ^{3}}
=x*25/27(1 + 25/27 + 625/729)
=25x/27 (2029/729)
x =3880.335

2. A sum was put at simple interest at a certain rate for 5 years. Had it been put at 2% higher rate, it would have fetched Rs. 450 more. Find the sum?
A) Rs 4500
B) Rs 3200
C) Rs 3800
D) Rs 4200
E) None

View Answer

Option B
Solution:

P*(r+2)*5/100-P*r*5/100=450
5P(r+2-r)/100=450
P=Rs4500.

3. Stephen borrowed some money at 6% for the first 4 years, 8% for the next 6 years and 11% for the period beyond 2 years. If the total interest paid by him at the end of eleven years is Rs 5640, how much money did he borrow?
A) Rs 10000
B) Rs 6000
C) Rs 8000
D) Rs 9000
E) None

View Answer

Option B
Solution:
Let the sum be P. Then,
(P*6*4/100) + (P*8*6/100) + (P*11*2/100)=5640.
24P/100+48P/100+22P/100=5640.
94P/100=5640==>P=6000.

4. A financier lend money at simple interest, but he includes the interest every six months for calculating the principal. If he is changing an interest of 10%, the effective rate of interest becomes?
A) 10%
B) 11.5%
C) 10.25%
D) 12%
E) None

View Answer

Option C
Solution:
Let the sum be Rs. 100. Then,
S.I. for first 6 months = (100 * 10 * 1/2)/ 100] = Rs.5
Next 6 months 10% of 5 is Rs 2 is added.
S.I. for last 6 months =Rs.[(102 * 10 * 1/2)/100] = Rs.5.25
So, amount at the end of 1 year = Rs. (100

+ 5 + 5.25) = Rs. 110.25
R = (110.25 – 100) = 10.25%

5. Ragav purchases a coat for Rs.2400 cash or for Rs.1000 cash down payments and two monthly installments of Rs.800 each. Find the rate of interest.
A) 80%
B) 100%
C) 110%
D) 120%
E) None

View Answer

Option D
Solution:
Amount as a principal for 2 month = 2400 – 1000 = 1400
At the rate of r% per annum after 2 months, Rs.1400 will amount to Rs 1400 + (1400*r*2/100*12)
Total amount for 2 installments at the end of second month
Rs800+(800+(800*r*1/100*12))
Then 1400 + 2800*r/1200=1600+ 800*r/1200
R=120%

6. The difference between simple interest and compound interest on Rs. 1200 for one year at 10% per annum reckoned half-yearly is:
A) Rs.3
B) Rs.3.5
C) Rs.4
D) Rs.5
E) None

View Answer

Option A
Solution:
SI=1200*10*1/100=120
CI half yearly ={1200*(1+5/100)^2– 1200}=123
Difference =123-120=3

7. A borrows 5000 at simple interest. At the end of 3 years, he again borrows 3000 and finally pays 2340 as interest after 6 years from the time he made the first borrowing. Find the rate of interest per annum.
A) 4%
B) 5.5%
C) 6%
D) 4.5%
E) None

View Answer

Option C
Solution:
Let r be the rate of interest
5000*3x/100 + 8000*3x/100 = 2340
150x + 240x = 2340
X = 6

8. Arav fixes the rate of interest 5% per annum for first 3 years and for the next 4 years 6 percent per annum and for the period beyond 7 years, 7 percent per annum. If Mr. Kumar lent out Rs.2500 for 11 years, find the total interest earned by him?
A) 1650
B) 1565
C) 1840
D) 1675
E) None

View Answer

Option D
Solution:
5% for 3 years = 15%
6% for 4 years = 24%
7.5% for 4 years = 28%
67% of 2500 = 1675

9. A certain sum of money amounts to rupees 2900 at 4% per annum in 4 years. In how many years will it amount to rupees 5000 at the same rate?
A) 30
B) 25

C) 22
D) 18
E) None

View Answer

Option B
Solution:
$2900 = p + p*(4/100)*4$, $p = 2500$
$5000 = 2500 + 2500*(4/100)*t$
$5000=2500+100t$
$t =25$

10. Rs.100 doubled in 5 years when compounded annually. How many more years will it take to get another Rs.200 compound interest?
A) 5
B) 6
C) 8
D) 10
E) None

View Answer

Option A
Solution:
Rs.100 invested in compound interest becomes Rs.200 in 5 years.
The amount will double again in another 5 years.
i.e., the amount will become Rs.400 in another 5 years.
So, to earn another Rs.200 interest, it will take another 5 years.

1. Mosses invested Rs. 20,000 in a scheme at simple interest @ 15% per annum. After three years he withdrew the principal amount plus interest and invested the entire amount in another scheme for two years, which earned him compound interest @ 12% per annum. What would be the total interest earned by Mosses at the end of 5 years?
A) Rs. 16377.6
B) Rs. 10152.3

C) Rs. 11012.14
D) Rs. 12500
E) None

View Answer

Option A
Solution:
SI= 20,000*15*3/100=9000
Amount=20,000+9000=29,000
Now CI= $29,000*(1+12/100)^2 = 29,000 *$
$28/25 * 28/25 = 36,377.6$
A-P=36, 377.6-29000=7377.6
After 5yrs 7377.6+9000=16,377.6

2. A certain sum is invested for certain time. It amounts to Rs. 600 at 10% per annum. But when invested at 5% per annum, it amounts to Rs. 400. Find the time.
A) 40 years
B) 75 years
C) 50 years
D) 60 years
E) None

View Answer

Option A
Solution:
600-P=P*10*t/100 —>1===>6000-10P=Pt
400-P=P*5*t/100—->2====>8000-20P=Pt
Equate 1 and 2 6000-10P=8000-20P==>P=200
Substitute P in 1 then
400=200*5*t/100==>40yrs.

3. A lent Rs. 8000 to B for 2 years and Rs 6000 to C for 4 years on simple interest at the same rate of interest and received Rs 1840 in all from both of them as interest. The rate of interest per annum is
A) 4.6%
B) 8.4%
C) 6.3%
D) 10%
E) None

View Answer

Option A
Solution:
rate of interest be r%
Then
8000*2*R/100 + 6000*4*R/100 = 1840
160R+240R = 1840
400R = 1840
R = 4.6 % p.a

4. A Man lends Rs. 1540 for five years and Rs. 1800 for four years. If he gets Rs. 1788 as interest on both amounts, what is the rate of interest ?
A) 10%
B) 12%
C) 15%
D) 8%
E) None

View Answer

Option B
Solution:
Let the interest rate be r%
We know that,
S.I = PTR/100
=> (1540 x 5 x r)/100 + (1800 x 4 x r)/100 = 1788
=> r = 178800/14900 = 12%

5. If a sum of Rs.8000 lended for 20% per annum at compound interest then the sum of the amount will be Rs.13824 in
A) 2 years
B) 1year
C) 3years
D) 4years
E) None

View Answer

Option C
Solution:
P = Rs.8000, R = 20% per annum
$P(1 + R/100)^n$
Rs.13824 = 8000 * $(1 + 20/100)^n$
$(12/10)^3 = (12/10)^n$
n=3

6. What will be the amount if sum of Rs.10,00,000 is invested at compound interest for 3 years with rate of interest 11%, 12% and 13% respectively?
A) Rs.14,04,816
B) Rs.12,14,816
C) Rs.11,35,816
D) Rs.16,00,816
E) None

View Answer

Option A
Solution:
Here P=10,00,000 R1=11 R2=12 R3=13
Amount after 3 yrs
=p(1+R1/100)(1+R2/100)(1+R3/100)
10,00,000*(1+11/100)(1+12/100)(1+13/100)=14,04,816.

7. Two persons P and Q borrowed Rs.40,000/- and Rs.60,000/- respectively from R at different rates of simple interest. The interest payable by P at the end of the first four years and that payable by Q at the end of the first three years is the same. If the total interest payable by P and Q for one year is Rs.8,400/- then at what rate did Q borrow the money from R?
A) 8
B) 10
C) 12
D) 9
E) None

View Answer

Option B
Solution:
40000*4*R1/100=60000*3*R2/100
R1=9/8R2
1yr interest
40000*1*r1/100+60000*1*R2/100=8400
4R2+6R2=84
Then substitute 4(9/8R2)+6R2=84==>
R2=8

8. In what time will Rs 390625 amount to Rs 456976 at 4% compound interest?
A) 4

B) 5
C) 8
D) 6
E) None

View Answer

Option A
Solution:
$P(1+r/100)^t = A$
$390625(1+4/100)^t = 456976$
$(1+1/25)^t = 456956 / 390625$
$(26/25)^t = (26/25)^4$
T = 4

9. The difference between C.I. and S.I. on a certain sum of money at 10% per annum for 3 years is Rs. 620. Find the principal if it is known that the interest is compounded annually.
    A) Rs. 2,00,000
    B) Rs. 20,000
    C) Rs. 10,000
    D) Rs. 1,00,000
    E) None

View Answer

Option B
Solution:
diff between CI and SI $=P * r^2/100^3 * (300+r)$
$620=p*100/100^3 * 310$
P=Rs20,000

10. Shanthi borrowed Rs.75,000.00 from two banks at compound interest compound annually. One bank charges interest at the rate of 15% per year and the other bank at 20% per year. If at the end of the year, shanthi paid Rs.12,000.00 as the total interest to the two banks, how much did she borrow from the second bank?
    A) 18000
    B) 20000
    C) 15000
    D) 19000
    E) None

View Answer

Option C
Solution:
$P*(1+r/100)=A$
$75000*(100+r)/100=(75000+12000)87000$
$100+r=116==>r=16\%$
15……………20
…………16
Ratio 4:1
Total 5 == 75000
1 ? == Rs15000.

1. Reena is borrowed a sum of RS. 6000 from Raveena at the rate of 14% for 2 years. She then added some more money to the borrowed sum and lent it to Sameera at the rate of 18% of simple interest for the same time. If Reena gained Rs. 650 in the whole transaction , then what sum did he lend to Sameera?
    A) Rs.6427.12
    B) Rs.8015.41
    C) Rs.6472.22
    D) Rs.7541.2
    E) Rs.6758.2

View Answer

Option C
Solution:
Let the money lent to Sameera be Rs.x
Therefore ,
$x*(18/100)*2 – 6000*(14/100)*2 = 650$
$=> x= 6472.22$

2. The rate of interest on a sum of money is 4% per annum for the first 2 years , 6% per annum for the period next 4 years, 8% per annum for the period beyond 6 years.If the simple interest accrued by the sum for a total period of 9 years is Rs. 1680 ,what is the sum ?
    A) Rs.3000
    B) Rs.5000
    C) Rs.4700
    D) Rs.5500
    E) Rs.7580

View Answer

Option A
Solution:
SI at the rate of 4% for 2 years ,
=(P* 4*2)/100 = 8P/100
SI at the rate of 6% for 4 years ,
(P*6*4)/100 = 24P/100
SI for the next 3 years
SI = (P*8*3)/100 = 24P/100
Total SI = 8P/100 + 24P/100 + 24P/100
=>P = (1680*100)/56 = 3000

3. The simple interest on a certain sum for 2 years at the rate of 5% per annum is Rs.160. What would be the difference of compound interest and simple interest for the same period and at the same rate of interest?
A) Rs.2
B) Rs.10
C) Rs.6
D) Rs.4
E) Rs.8

View Answer

Option D
Solution:
For 2 years
SI = 5* 2= 10 % of the sum
CI = 5 + 5+ (5*5)/100 = 10.25% of the sum
required diff. = 10.25 – 10 = 0.25% of the sum
Therefore ,
the required diff. = (160/10) * 0.25 = Rs.4

4. What is the difference between CI and SI ,if sum is Rs.10,000 for 3 years at the rate of 3% ?
A) Rs.42
B) Rs.30
C) Rs.27.27
D) Rs.35
E) Rs.25

View Answer

Option C
Solution:
Difference = [sum * r^2 (300 + r)]/(100)^3
= [10000 * 3 * 3 (300+3)]/(100)^3 = 27.27

5. Arjun lent out a sum of money at compound interest rate of 30% per annum for 2 years .It would fetch Rs. 500 more if interest is compounded half –yearly.
A) Rs.8000
B) Rs.8041.12
C) Rs.8145
D) Rs.8457.2
E) Rs.8333.33

View Answer

Option E
Solution:
P[1+(15/100)]^4 – P[1 +(30/100)]^2 = 500
=> P = 8333.33

6. At what rate of % per annum will Rs.2304 amount to Rs. 2500 in 2 years compounded annually.
A) 5.2%
B) 4.16%
C) 3.45%
D) 4.5%
E) 3.2%

View Answer

Option B
Solution:
Shortcut::
2304 == 2500
576 == 625
Take square roots
24 == 25
diff. = 1
= (1/24) * 100 = 4.16%

7. The ratio of the amount for 2 years under compound interest annually and for 1 year under simple interest is 5:4 when the rate of interest is same then find the rate of

interest?
A) 20%
B) 25%
C) 60%
D) 30%
E) 40%

View Answer

 Option B
Solution:
rate /100 = 5/4 -1
rate = 25%

8. Anu borrowed Rs.800 at rate of interest 10% . He repaid Rs.400 at the end of first year.What is the amount required to repay at the end of second year to discharge his loan which was calculated at compound interest?
A) Rs.650
B) Rs.528
C) Rs.490
D) Rs.780
E) Rs.472

View Answer

 Option B
Solution:
Amount paid at the end of 1 year = 800[1 + 10/100] = 880
Amount left as principal for the second year = 880-400 = 480
Amount to be paid after 2nd year = 480 [1 + 10/100] = Rs.528

9. Sahil has lent some money to Anita at 6% per annum and Sheetal at 8% per annum. At the end of the year he has gain the overall interest at 7% per annum.In what ratio has he lent the money to Anita and Sheetal?
A) 3:8
B) 1:2
C) 2:5
D) 1:1

E) 4:5

View Answer

 Option D
Solution:
6……………..8
………7
1   :   1

10. What is the ratio of the simple interest earned by certain amount for 4 years and 8 years at the same rate of interest?
A) 3:2
B) 2:1
C) 1:2
D) 4:3
E) 3:5

View Answer

 Option C
Solution:
ratio = 4PR / 8PR = 1 : 2

1. A man with a sum of Rs3903 wants to deposit in the bank account of his two sons so that both will get equal money after 5yrs and 7yrs respectively at the rate of 4% compounded annually. Find the part of amount deposited into the account of first son?
A) 2028
B) 2400
C) 3000
D) 1250

View Answer

Option A
Some Extra:
A(1+4/100)^5 = B(1+4/100)^7
A/B = (1+4/100)² = 676/625
676+625 = 3903
1= 3
676 = 2028

2. The ratio of difference between compounded interest and simple interest for 3years to the difference between C.I and S.I for 2years is 31 : 10. What is rate of percent per annum ?
A) 20%
B) 25%
C) 16(2/3)%
D) 10%

View Answer

Option D
Some Extra:
Principal
A A A
. B B
. B
. C
Difference between C.I & S.I for 3yrs = 3B+C
Difference between C.I & S.I for 2yrs = B
Now …. (3B+C)/B = 31/10
B = 10
C = 1
Rate = C/B = 1/10 = 10%

3. A certain sum is lent for 3yrs at 10% compound interest p.a. if the C.I for the 3rd year is 242. Then what will be the S.I for 4yrs?\
A) 400
B) 800
C) 600
D) 1000

View Answer

Option B
Some Extra:
R – 10% = 1/10 ….. (10)³ = 1000, let P=1000
.   1000
100……………..100……………100
.   10………………10
.   10
.   1
C.I for 3rd yr = 121
121 = 242
1 = 2

P = 1000 = 2000
S.I = 4*10 = 40% of 2000 = rs800

4. What will be the difference between compound interest on sum of 3000 for 1(1/2) yrs. When the interest is compounded annually and half yearly respectively if rate is 20% compounded annually?
A) 30
B) 33
C) 36
D) 39

View Answer

Option B
Some Extra:
Compound Annually ……..C.I = 960
Compound half yearly ………. C.I = 993
Difference = 993 -960 = 33

5. If a principal becomes triple in 4yrs at C.I then find in how many years it will be nine fold?
A) 8yrs
B) 12yrs
C) 10yrs
D) 16yrs

View Answer

Option A
Some Extra:
In C.I 'P' increases like…..
P……….3P………….9P
.   4   4
4+4 = 8yrs

6. If the difference between C.I and S.I at 20% rate of interest 'is 480. Then find the principal amount?
A) 3600
B) 3750
C) 4000
D) 4750

View Answer

Option B
Some Extra:
20% =1/5……….(5)^T………=(5)³=
125=principal
In 3yrs difference will always come
3A + 1 = (3*5)+1 =16
16 = 480
1 =30
125 =3750

7. A sum of Rs13,360 was borrowed at
    8(3/4)% p.a C.I and paid back in 2yrs in
    two equal installments. What was the
    amount of each installment?
    A) 5769
    B) 7569
    C) 7009
    D) 7500

    View Answer

    Option B
    Some Extra:
    8(3/4) = 7/80
    80/87 * 167/87 * installments =13360
    Installments = Rs7569

8. If a sum of Rs16 becomes Rs81 in 4yrs
    then find the rate of interest at compound
    interest?
    A) 33(1/3)%
    B) 40%
    C) 50%
    D) 66(2/3)%

    View Answer

    Option C
    Some Extra:
    4√16 : 4√81
    2 : 3
    3 -2 = 1
    1/2* 100 = 50%

9. Find the C.I on Rs20,000 at 15% rate of
    interest in 3yrs?
    A) 10400.5
    B) 10500.5
    C) 10517.5

D) 10417.5

View Answer

Option D
Some Extra:
.   20000
SI for 1 year = 20000*15/100 = Rs 3000
3000…………………..3000………………
……3000
.   450…………………
…..450
.   45
0
.   67
.5
= 9000 + 1350 + 67.5 = 10417.5

10. S.I on a sum for 3yrs at any rate of interest
    is 450 while C.I on the same sum at the
    same rate for 2yrs is 315. Find the sum and
    rate percent?
    A) 5% , 1500
    B) 10%, 1500
    C) 5%,2000
    D) 10%,2000

    View Answer

    Option B
    Some Extra:
    .   P
    1st yr150…………….. 2nd yr150
    ……………………………………………
    ….15
    15 = 10% of 150
    So R = 10%
    P = 1500

1. Find the compound interest on Rs36,000 at
    a rate in which Rs216 becomes Rs343 in
    3years and the time is 2years?
    A) Rs12000
    B) Rs12500
    C) Rs13000
    D) Rs13500
    E) Rs14200

View Answer

Option C
Solution:
first we find the rate
3√216 : 3√343
6 : 7
(+1)
1/6*100= 16(2/3) %
Now R = 16(2/3) %=1/6
6…………….7
6…………….7
36 49
(13) =13000

2. If a principal becomes triple in 3years on C.I. then find in how many years it will be 27 fold?
   A) 39years
   B) 9years
   C) 18years
   D) 27years
   E) 10years

View Answer

Option B
Solution:
in C.I principal increase like
1….3….9…..27
…3…..3….3
= 9years

3. If a principal becomes amount of rs14500 at 14(2/7)% rate of interest in 3years at simple interest. Find the S.I on principal?
   A) Rs4250
   B) Rs4300
   C) Rs4400
   D) Rs4350
   E) Rs4270

View Answer

Option D
Solution:
R = 14(2/7)% = 1/7
S.I remains same in all years so…
(P)7 + 1+1+1= 10(A)
10-7 = 3S.I

10 =14500
1=1450
3=4350

4. If the difference between C.I and S.I is rs256 at 20% rate of interest in 3years. Find the amount on C.I?
   A) Rs4320
   B) Rs2500
   C) Rs3456
   D) Rs3200
   E) Rs3478

View Answer

Option C
Solution:
S.I in 3years = 20*3= 60%
C.I in 3years = 5…………..6
.   5…………..6
.   5…………..6
.   125   216
.   (91)
91/125*100= 72.8
Difference = 72.8 – 60= 12.8
12.8%= 256
100% = 2000
Now P = 2000
Means in C.I …. 125 =2000
1 = 16
216 = 3456

5. A sum becomes 8000 in 3years and 10000 in 6years at C.I. Find the sum ?
   A) Rs6400
   B) Rs6500
   C) Rs6000
   D) Rs7000
   E) Rs7200

View Answer

Option A
Solution:
x : y = y : z
x : 8000 = 8000 : 10000
x = 6400

6. Find the C.I on rs9000 at 15% rate of interest for 3years?

A) Rs4645.87
B) Rs4680.87
C) Rs4685.87
D) Rs4687.87
E) Rs4356.77

View Answer

Option D
Solution:
15% of 9000 = 1350
1350……………1350………………1350
.   202.5……………202.5
.   202.5
.   30.37
= 4687.87

7. Find the compound interest on 18000 at
    20% rate of interest in 1(1/2) years, if
    compounded half yearly ?
    A) Rs5958
    B) Rs4916
    C) Rs5780
    D) Rs3500
    E) Rs6724

View Answer

Option A
Solution:
in half yearly we make rate half and time
double.
So R =20/2 = 10%
T = 3/2 * 2= 3years
So 10% of 18000 = 1800
1800………………1800…………………
1800
.   180……………………18
0
.   180
.   18
= 5400 + 540 + 18 = 5958

8. Find the difference between S.I and C.I on
    Rs 5000 if rate of interest for first year is
    10% and 2nd year is 15% and 3rd year is
    20%?
    A) Rs300
    B) Rs320
    C) Rs330

D) Rs340
E) Rs360

View Answer

Option D
Solution:
S.I = 10+15+20 = 45%
C.I ..   10…….11
.   20……23
.   5……6
.   1000…..1518
.   (518)
= 518/1000*100 = 51.8 %
= difference = 51.8 – 45 = 6.8%
= 6.8% of 5000 = 340

9. If the principal become 6 fold on S.I in 10
    years then find in how many years it will be
    12 fold?
    A) 24years
    B) 22years
    C) 12years
    D) 20years
    E) 25years

View Answer

Option B
Solution:
P …………………..6P
6P – P = 5P interest
5P = 10years
P = 2years
11 P = 22years

10. If the compound interest on a sum at 25%
    rate of interest is Rs900 then find the S.I of
    3years at same rate?
    A) Rs1000
    B) Rs1100
    C) Rs1300
    D) Rs1200
    E) Rs1500

View Answer

Option D
Solution:

S.I = 25*3 = 75%
C.I = 25% =1/4
4…………..5
4……………5
16…………25
25 -16 = 9
9 = 900
16 = 1600 = principal
So 75% of 1600 =1200

1. If the difference between Simple Interest and Compound Interest at 10% p.a rate of interest for 3 years is Rs. 930, then find the Sum.
A) Rs 25,000
B) Rs 30,000
C) Rs 35,000
D) Rs 40,000
E) None of these

View Answer

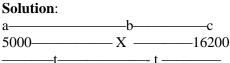**Option B**
Solution:
On SI, Rate for 3 years=3*10=30%
On CI rate for 3 years – 10%=1/10
10——11
10——11
10——11
1000——1331
=1331-1000/1000 *100=33.1%
Difference=33.1-30=3.1%
3.1%=930
100%=Rs 30,000

2. On a certain rate of interest a sum of Rs 5000 becomes Rs 16,200 in certain years at compound interest. In half of the time given, this sum will become?
A) Rs 10,000
B) Rs 5,600
C) Rs 9,000
D) Cannot be determined
E) None of these

View Answer

Option C
Solution:
a———————b————c
5000—————— X ————16200
———t————————- t ————
As we have to calculate the sum for half time, both time period is same, and hence
a:b = b:c
5000:x = x:16200
x=Rs 9000

3. If a certain sum becomes double in 3 years at certain rate of interest at C.I. Then in how many years it will become 16 times?
A)12 years
B) 24 years
C) 8 years
D) Cannot be determined
E) None of the above

View Answer

Option A
Solution:
In C.I P increases like
P——-2P——-4P———8P——-16P
—-3yrs——3yrs——3yrs———3yrs
total=3+3+3+3=12 years

4. Ram invests two sum of money A and B at 10% p.a. and 20% p.a respectively at CI for 2 years. IF the total interest on both the sum is Rs 5350 then find the sum invested in A if the total sum of A and B was Rs 20,000?
A) Rs 5,000
B) Rs 10,000
C) Rs 12,000
D) Rs 15,000
E) None of these

View Answer

Option D
Solution:
At 10% CI in 2 years=21 %
At 20% Ci in 2 years =44%
and 5350 is 107/4% of 20000, by using allegation
A   B

21   44
107/4
3   1
A=3/4*20000= Rs 15000

5. The compound interest on a certain sum for 2 years at a certain rate of interest is Rs 1025 and Simple Interest on the same sum, same time and same rate of interest is Rs 1,000. Then find the C.I for same sum in 3 years.
    A) Rs 1575.25
    B) Rs 1576.25
    C) Rs 1576.75
    D) Rs 1575.75
    E) None of these

    View Answer

    Option B
    Solution:
    SI for 2 years = Rs 1000 =.> Si 1 year = Rs 500
    In the second years Rs 25 is added in CI (1025-1000) which is 5% of 500
    Hence R=5%
    5%=500
    100%=10000
    sum=10000
    CI for 3 years= RS 1576.25

6. A sum becomes triple in 6 years at S.I. The same sum will become 19 times in how many years?
    A) 50 years
    B) 48 years
    C) 54 years
    D) 57 years
    E) None of these

    View Answer

    Option C
    Solution:
    SI=A-P=> A=3P as sum triples
    SI=3P-P=2P in 6 years
    In 19 times SI=18 P—54 years (2:6 hence 18=54)

7. A sum of Rs 343 becomes 512 in 3 years at C.I. Find the rate of interest.
    A) 14 (2/7) %
    B) 12.5 %
    C) 8 (2/3) %
    D) 16 (2/3) %
    E) None of these

    View Answer

    Option A
    Solution:
    Sum=353; Amount=512
    as many year, put that many root i.e cuberoot(343): cuberoot(512)
    7:8
    rate=(8-7)/7 *100 =14 (2/7)%

8. Find the C.I on Rs 20,000 at 10% rate of interest in 2 years if compounded half yearly. (Approximately)
    A) Rs 4210
    B) Rs 4310
    C) Rs 4410
    D) Rs 4510
    E) None of these

    View Answer

    Option B
    Solution:
    In half yearly=> Time-double; Rate= half
    Rate=5% ; Time=4 years; Sum = Rs 20,000
    1 years————2 years————3 years————4 years
    1000—————————1000—————————1000————————1000
    ————————————————50————————————50————————50
    ——50
    ————————50
    ——2.5
    ————————50
    _____
    ————————2.5
    _____
    ————————2.5
    _____
    ————————2.5
    _____

—————-0.125
Total = Rs 4000 +300 + 10+0.125= Rs 4310.125

9. A sum of Rs 6,000 was taken as a loan. This is to be repaid in two equal annual installments. If the rate of interest is 20% compounded annually then find the value of each installment.
A) Rs 4400
B) Rs 2220
C) Rs 4320
D) Rs 4420
E) None of these

View Answer

Option C
Solution:
Formula= $x/(1+R/100)^T$
$x/ (1+20/100)^1 + x/(1+20/100)^2 = 6600$
solve and get x=4320

10. If the ratio of difference between CI and SI for 3 years and 2 years is 31:10, then find the Rate of Interest.
A) 11.11%
B) 10%
C) 20%
D) 25%
E) None of these

View Answer

Option B
Solution:
Sum= A
Interest= B
A———A———A
————-B———B
——————————B
——————————C
CI for 3 years=3A+3B+C
SI for 3 years =3A
Diff= 3B+cCI for 2 years=2A+B
SI for 2 years=2A
diff=B
ratio=(3B+C)/B=31/10
B=10; C=1
Rate=C/B=1/10=10%

1. If a sum amounts to Rs 6000 in 2 years on CI. What will it become after 4 years on C.I, if the principal amount was Rs 4500?
A) Rs 7500
B) Rs 8000
C) Rs 8500
D) Rs 9000
E) None of these

View Answer

Option B
Solution:
a————b————-c
. 2 years——2 years
a:b = b:c
4500:6000 = 6000:x
x = 8000

2. If Compound Interest on certain sum for 2 years is 352 at some rate of interest and Simple Interest on same rate for 3 years is 480, then find the sum.
A) Rs 800
B) Rs 1000
C) Rs 700
D) Rs 900
E) None of these

View Answer

Option A
Solution:
SI for 1 years= 480/3 =160 (as SI is same for every year)
SI for 2 years=320
CI for w year=352; diff=32
32=20% of 160
hence r=20%
20%=160
100%=800

3. If a sum of RS 2744000 becomes Rs 3176523 in three years on Compound Interest then find the rate of interest.
A) 10%
B) 5%

C) 8%
D) 20%
E) None of these

View Answer

Option B
Solution:
Find the cube root of both numbers. Cube root-> 3 years
cube root(2744000): cube root(3176523)
140:147
rate=(147-140)/140*100==5

4. If the difference between Simple Interest and Compound Interest at 20% rate of Interest in 3 years is 5120, then find the sum.
    A) Rs 40,000
    B) Rs 50,000
    C) Rs 60,000
    D) Rs 30,000
    E) None of these

View Answer

Option A
Solution:
On SI interest=20% *3 =60%
On CI interest =20%= 1/5
5——-6
5——-6
5——-6

_____

125—-216
(216-125)/125*100=72.8%
diff=72.8-60=12.8%
12.8%=5120
100%=40,000

5. Find the Compound Interest on Rs 30,000, if the rate of interest for first year is 5% second year is 10% and on the third year is 20%
    A) 11580
    B) 11500
    C) 10500
    D) 10000

E) None of these

View Answer

Option A
Solution:
1st year 5%=1/20————20———21
2nd year 10% =1/10———10———11
3rd year 20% =1/5———5———-6
————————————————=1000——1386
(1386-1000)/1000*200=38.6%
38.6% of 30000=11580

6. What is the difference between Simple Interest and Compound Interest on Rs 70,000 ar 20% rare of interest in one and a half year if Compound Interest is compounded half yearly.
    A) Rs 2070
    B) Rs 2160
    C) Rs 2170
    D) Rs 2060
    E) None of these

View Answer

Option C
Solution:
SI on 1 (1/2) year= 20*1.5=30%
SI on 1 (1/2) years of compounded half yearly make rate half yearly and time double
r=10%=1/10 ; t=3 years
10——11
10——11
10——11
1000—-1331
r=331/1000*100=33.1
33.1%of 70,000 = 2170

7. Divide Rs 20,816 between A and B so that A's share at the end of 7 years is equal to B's share at the end of 9 years with compound interest being 4% p.a
    A) 10716, 10100
    B) 10616, 10200
    C) 10816, 10000
    D) 10800, 10016
    E) None of these

View Answer

Option C
Solution:
second part + (4+4 +16/100) of second part
= first part
second part + 8.16% of second part= first
part
first part/second part= 108.16/100 =
10816/10000

8. Find the simple interest and compound
   interest of Rs 15000 at 20% rate of interest
   after 3 years.
   A) 9000, 11000
   B) 8000, 11920
   C) 9000, 10920
   D) 6000, 9000
   E) None of these

View Answer

Option C
Solution:
SI= 20*3=60%=9000
CI=
3000 ————— 3000 ———3000
————————-600————600
————————————600
————————————120
=> 9000+1800+120=10920

9. A man borrows Rs 8000 at 10%
   compounded rate of interest. At the end of
   each year he pays back Rs 2200. How
   much amount should he pay at the end of
   the third year to clear all his dues?
   A) Rs 5500
   B) Rs 5466
   C) Rs 5666
   D) Rs 5566
   E) None of these

View Answer

Option D
Solution:
first year=8000+800=8800-2200=6600
second year=6600+660=7260-2200=5060
third year=5060+506=5566

10. What sum of money at compound interest
    will amount to Rs 32000 in 3 years at the
    rate of interest 20% in first years, 16
    (2/3)% in second year and 14 (2/7)% in
    third year.
    A) Rs 18,000
    B) Rs 20,000
    C) Rs 22,000
    D) Rs 25,000
    E) None of these

View Answer

Option B
Solution:
1st year = 20% =1/5————-5 —————-
6
2nd year = 16 (2/3)= 1/6——-6————7
3rd year = 14 (2/7) =1/7 ——-7————8
————————————-= 210———
336 on simplifying = 5:8
r=(8-5)/5*100=60%
160%=32000
100%=20000

**The compound interest on a certain sum for 2
years is Rs. 786 and S.I. is Rs. 750. If the sum
is invested such that the S.I. is Rs. 1296 and
the number of years is equal to the rate per
cent per annum, Find the rate of interest?**
A.4%
B.5%
C.6%
D.8%
E.2%

Answer & Explanation
Answer – **C.6%**
Explanation :
CI for 2 years = Rs. 786
SI for 2 years = Rs. 750
36/360 * 100 = 10%
P for first year = 3600
P*x*x/100 = 1296
x = 6%

**Hari took an educational loan from a
nationalized bank for his 2 years course of
MBA. He took the loan of Rs.5 lakh such that
he would be charged at 7% p.a. at CI during**

---

his course and at 9% CI after the completion of the course. He returned half of the amount which he had to be paid on the completion of his studies and remaining after 2 years. What is the total amount returned by Hari?

A.Rs. 626255
B.Rs. 626277
C.Rs. 616266
D.Rs. 626288
E.None of these

Answer & Explanation
Answer – **D.Rs. 626288**
Explanation :
$5,00,000 * (1.07)^2 = 572450$
Returned amount = 286225
After two years = $286225 * (1.09)^2 = 340063$
Total amount = 286225 + 340063 = 626288

Rs.20,000 was invested by Mahesh in a FD @ 10% pa at CI. However every year he has to pay 20% tax on the CI. How much money does Mahesh have after 3 years?

A. 25694
B. 25594
C. 25394
D. 25194
E.None of these

Answer & Explanation
Answer – **D. 25194**
Explanation :
$(20000*(1.08)^3)=25194$

Leela takes a loan of Rs. 8400 at 10% p.a. compounded annually which is to be repaid in two equal annual installments. One at the end of one year and the other at the end of the second year. The value of each installment is?

A. 4200
B. 4140
C. 4840
D. 5640
E. None of these

Answer & Explanation
Answer – **C. 4840**
Explanation :
$8400 = x*(210/121) => 4840$

A sum of money lent at compound interest for 2 years at 20% per annum would fetch Rs.723 more, if the interest was payable half yearly than if it was payable annually. The sum is ____

A.Rs. 20000
B.Rs. 15000
C.Rs. 30000
D.Rs. 45000
E.None of these

Answer & Explanation
Answer – **C.Rs. 30000**
Explanation :
sum – Rs.x
C.I. compounded half yearly = (4641/10000)x
C.I. compounded annually = (11/25)x
(4641/10000)x – (11/25)x = 723
x = 30000

A sum of Rs.7140 is to be divided between Anita and Bala who are respectively 18 and 19 yr old, in such a way that if their shares will be invested at 4% per annum at compound interest, they will receive equal amounts on attaining the age of 21 year. The present share of Anita is

A. 4225
B. 4352
C. 3500
D. 4000
E. None of these

Answer & Explanation
Answer – **C. 3500**
Explanation :
Amount got by Anita after 3 yr = Amount got by Bala after 2 yr
$x*(26/25)^3 = (7140 – x)*(26/25)$
26/25 = 7140 – x / x
x = 3500

Suresh borrows Rs.6375 to be paid back with compound interest at the rate of 4 % pa by the end of 2 year in two equal yearly installments. How much will each installment will be?

A.3840
B.3380
C.4800
D.Data inadequate
E.None of these

Answer & Explanation
Answer – **B.3380**
Explanation :

$25x/26 + 625/676x = 6375$

$x = (6375 * 676)/1275 = 3380$

A sum of Rs. 8400 was taken as loan. This is to be paid in two equal annual installments. If the rate of interest be 20% compounded annually, then the value of each installment is
A. 5400
B. 5700
C. 5100
D. 5200
E. None of these

Answer & Explanation
Answer – **A. 5400**
Explanation :
Let value of each installment be X.
$X/(1 + 20/100) + X/(1 + 20/100)^2 = 8400$
$\Rightarrow X(5/6 + 25/36) = 8400$
$\Rightarrow X(56/36) = 8400$
$X = 5400$

During the first year the population of a village is increased by 5% and the second year it is diminished by 5%. At the end of the second year its population was 31500. What was the population at the beginning of the first year?
A. 35500
B. 31578
C. 33500
D. 33000
E. None of these

Answer & Explanation
Answer – **B. 31578**
Explanation :
$x * 105/100 * 95/100 = 31500$
$x = 31500 * 100/105 * 100/95$
$D = 31578$

If Rs. 7200 amounts to Rs.10368 at compound interest in a certain time , then Rs. 7200 amounts to what in half of the time?
A. 8640
B. 8600
C. 8800
D. 8520
E. None of these

Answer & Explanation
Answer – **A. 8640**
Explanation :
Let rate = R% and time = n year

Then, $10368 = 7200(1+R/100)n$
$\Rightarrow (1+R/100)n = 10368/7200 = 1.44$
$\therefore (1 + R/100)n/2 = \sqrt{1.44} = 1.2$
$\therefore$ Required amount for n/2 yr
$= 7200(1+ R/100)n/2$
$= 7200 \times 1.2 = $ Rs. 8640

A part of 70000 is lent out at 10% annum. The rest of the amount is lent out at 5% per annum after one year. The ratio of interest after 3 years from the time when first amount was lent out is 1:2. Find the second part that was lent out at 5%.
A.40000
B.50000
C.60000
D.48000
E.55000

Answer & Explanation
Answer – **C.60000**
Explanation :
$10*3*x/5*2*y = 1/2$
$x/y = 1/6$
$6/7*70000 = 60000$

There is 50% increase in an amount in 5 years at simple interest. What will be the compound interest of Rs. 12,000 after 3 years at the same rate?
A.Rs. 2255
B.Rs. 2792
C.Rs. 3580
D.Rs. 3972
E.None of these

Answer & Explanation
Answer – **D.Rs. 3972**
Explanation :
In S.I,
Let P=100, I=50, T=5 yrs
$R = 50*100/100*5 = 10\%$
In C.I,
P = 12000, T=3 yrs, R= 10%
$C.I = [12000*(1 + 10/100)^3 – 1]$ C.I = 3972.

Karthik lends a certain amount to Vignesh on simple interest for two years at 20%. Vignesh gives this entire amount to Kamal on compound interest for two years at the same rate annually. Find the percentage earning of Vignesh at the end of two years on the entire

amount.
A.3%
B.3(1/7)%
C.4%
D.5(6/7)%
E.None of these

Answer & Explanation
Answer – **C.4%**
Explanation :
SI=20*2=40%
CI=20+20+(400/100)=44%
Diff = 44-40=4%

◻ **A man borrows 3000 rupees at 10% compound interest. At the end every year he pays rupees 1000 back. How much amount should he pay at the end of the fourth Year to clear all his debt?**
A.Rs. 680.5
B.Rs. 651.3
C.Rs. 751.3
D.Rs. 790.3
E.None of these

Answer & Explanation
Answer – **C.Rs. 751.3**
Explanation :
After one year amount = 3000 *110/100 = 3300
He pays 1000 back, so remaining = 3300-1000 = 2300
After two year amount = 2300 *110/100 = 2530
He pays 1000 back, so remaining = 2530-1000 = 1530
After three year amount = 1530*110/100 = 1683
He pays 1000 back, so remaining = 1683-1000= 683
After fouth year = 683 * 110/100 = 751.3

◻ **Rahul saves an amount of 800 every year and then lent that amount at an interest of 10 percent compounded annually. Find the amount after 3 years.**
A.Rs. 1822.8
B.Rs. 2252
C.Rs. 2550.50
D.Rs. 2912.8
E.None of these

Answer & Explanation
Answer – **D.Rs. 2912.8**
Explanation :
$800*(11/10)^3$=1064.8
$800*(11/10)^2$=968
800*(11/10)=880
Total amount =2912.8

◻ **Find the compound interest at the rate of 8% for 3 years on that principal which in 3 years at therate of 10% per annum gives 300 as simple interest.**
A.180.515
B.220.25
C.259.712
D.289.624
E.312.51

Answer & Explanation
Answer – **C.259.712**
Explanation :
SI =300
Per yr = 100
Rate = 10%
$C.I = 1000*(108/100)^3 -1000$
C.I = 259.712

◻ **The difference between the total simple interest and the total compound interest compounded annually at the same rate of interest on a sum of money at the end of two years is Rs. 450. What is definitely the rate of interest per cent per annum?**
A.8400
B.4800
C.7800
D.Data inadequate
E.None of these

Answer & Explanation
Answer – **D.Data inadequate**
Explanation :
Difference = $Pr^2/(100)^2$
= $(450×100×100)/(P×r^2)$
P is not given

◻ **The CI on Rs.6000 for 3 years at 8% for first year, 7% for second year, 6% for the third year will be**
A.Rs.1430
B.Rs.1530
C.Rs.1250
D.Rs.1350
E.None of these

Answer & Explanation
Answer – **D.Rs.1350**
Explanation :
A = 6000*108/100*107/100*106/100

= 6000*1.08*1.07*1.06
= 7349.616 = 7350
CI = 7350-6000 = 1350

Venkat and Vidhya have to clear their respective loans by paying 2 equal annual instalments of Rs.30000 each. Venkat pays at 10% pa of SI and Vidhyapays at 10% CI pa. What is the difference in their payments ?
A.200
B.300
C.400
D.500
E.None of these

Answer & Explanation
Answer – **B.300**
Explanation :
D =[(30,000 *110/100*110/100) – 30,000] – 30,000 *10*2/100
=[36300-30000]- 6000
=6300 – 6000
D = 300

The difference between interest received by Vivek and Vimal is Rs.405 on Rs.4500 for 3 years. What is the difference in rate of interest ?
A.1.5%
B.2%
C.3%
D.2.7%
E.None of these

Answer & Explanation
Answer – **C.3%**
Explanation :
4500*3/100(R1-R2) = 405
R1-R2 = 405*100/13500 = 3%

A sum of rupees 3903 is divided between P and Q such that the share of P at the end of 8 years is equal to the share of Q after 10 years. Find the share of P if rate of interest is 4% compounded annually.
a) 2012
b) 2029
c) 2028
d) 2081
e) None of these
Answer & Explanation

Answer –**c) 2028**
Explanation :
P*(1 + 4/100)^8 = (3903 – P)*(1 + 4/100)^10

A man borrows 2000 rupees at 10% compound interest. At the end every year he pays rupees 1000 back. How much amount should he pay at the end of the third Year to clear all his debt?
a) 252
b) 352
c) 452
d) 552
e) None of these

Answer & Explanation
Answer – **b) 352**
Explanation :
After one year amount = 2000*110/100 = 2200
He pays 1000 back, so remaining = 2200 – 1000 = 1200
After second year = 1200*110/100 = 1320
He pays 1000 back, so remaining = 1320 – 1000 = 320
After third year = 320*110/100 = 352

A sum of rupees 3200 is compounded annually at the rate of 10 paisa per rupee per annum. Find the compound interest payable after 2 years.
a) 200
b) 842
c) 672
d) 832
e) None of these

Answer & Explanation
Answer – **c) 672**
Explanation :
Rate of interest is 10 paisa per rupee per annum.
So for 100 rupees it is 1000 paise i.e. 10 percent
Now, CI = 3200(1+10/100)^ 2 – 3200 = 672

What sum of money will amount to rupees 1124.76 in 3 years, if the rate of interest is 5% for the first year, 4% for the second year and 3% for the third year?
a) 1500
b) 1200
c) 1000
d) 1900
e) None of these
Answer & Explanation

Answer – **c) 1000**
Explanation :
$1124.76 = p*(105/100)*(104/100)*(103/100)$

☐ **Riya saves an amount of 500 every year and then lent that amount at an interest of 10 percent compounded annually. Find the amount after 3 years.**
a) 1820.5
b) 1840.5
c) 1920.5
d) 1940.5
e) None of these

Answer & Explanation
Answer – **a) 1820.5**
Explanation :
Total amount $= 500*(1+10/100)^\wedge 3 + 500*(1+10/100)^\wedge 2 + 500*(1+10/100) = 1820.5$

☐ **A sum of 3000 becomes 3600 in 3 years at 15 percent per annum. What will be the sum at the same rate after 9 years?**
a) 5124
b) 5184
c) 5186
d) 5192
e) None of these

Answer & Explanation
Answer – **b) 5184**
Explanation :
$3600 = 3000*(1+15/100)^\wedge 3$
$(1+15/100)^\wedge 3 = 6/5$
Amount $= 3000*[(1+15/100)^\wedge 3]^\wedge 3$
Amount $= 3000*(6/5)^\wedge3 = 5184$

☐ **On a certain sum of money, after 2 years the simple interest and compound interest obtained are Rs 400 and Rs 600 respectively. What is the sum of money invested?**
a) 100
b) 200
c) 300
d) 400
e) None of these

Answer & Explanation
Answer –**b) 200**
Explanation :
$400 = P*(R/100)*2$
$600 = P*(1+R/100)^\wedge2 – P$
Solve both equations to get P

☐ **A sum of money becomes Rs 35,280 after 2 years and Rs 37,044 after 3 years when lent on compound interest. Find the principal amount.**
a) 2800
b) 3000
c) 3200
d) 4000
e) None of these

Answer & Explanation
Answer –**c) 3200**
Explanation :
$37044 = p*(1 +r/100)^\wedge3$
$35280 = p*(1 + r/100)^\wedge2$
Divide both equations to get the value of r and then substitute in any equation to get P

☐ **A sum of money is lent for 2 years at 10% p.a. compound interest. It yields Rs 8.81 more when compounded semi-annually than compounded annually. What is the sum lent?**
a) 1000
b) 1200
c) 1400
d) 1600
e) None of these

Answer & Explanation
Answer – **d) 1600**
Explanation :
$8.81 = p*(1+5/100)^\wedge4 – p*(1+10/100)^\wedge2$

☐ **A sum of rupees 4420 is to be divided between raj and parth in such a way that after 5 years and 7 years respectively the amount they get is equal. The rate of interest is 10 percent. Find the share of raj and parth**
a) 2000, 2420
b) 2420, 2000
c) 2480, 2420
d) 2210, 2210
e) None of these

Answer & Explanation
Answer – **b) 2420, 2000**
Explanation :
Let the share of raj and parth be R and P
$R*(1+10/100)^\wedge 5 = (4420 – R)*(1+10/100)^\wedge 7$
We get R = 2420, so P = 2000