



MATHS

BOOKS - PEARSON IIT JEE FOUNDATION

SALES TAX AND COST OF LIVING INDEX



1. The marked price of a suitcase is Rs. 850. The

rate of sales tax is 6%. Find the amount paid

by the customer to purchase the suitcase.



2. Sreekar purchases an article for Rs. 5200. If the rate of sales tax is 4%, find the marked

price of the article.



3. Calculate the total sales tax levied on the following products.

(a) A cell phone worth Rs. 6000, sales tax at 8%.

(b) An electric lamp worth Rs. 300, sales tax at 6%.

(c) Readymade shirts worth Rs. 1500, sales tax at 8%.

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4. A customer goes to a store to buy a bag costing Rs. 648 at marked rice. The sales tax to be levied on the bag is 8%. But the customer asks the trader to give a discount, after which she has to pay Rs. 648 to buy the bag. How much discount was given to the customer ?

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5. Calculate the cost of living index for the year 2006 taking 1990 as the base year from the

following information using weighted average

method.







The cost of the living index for 2008, taking

2007 as the base year, is 200. Find y.

(a) 10

(b) 12

(c)14

(d) 8



2. The _____ differs from item to item and state

to state. (sales tax/income tax)

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3. If the list price of an article is Rs. 50 and the rate of sales tax is 2%, then its selling price after tax is .

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4. Calculate the amount paid by a customer for an article, if its list price is Rs. 1250 and the rate of sales tax is 5%.s



5. Sales tax is calculated on the list price, if

no___ is given.

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9. Akhila visits a readymade garment shop and purchases a top for Rs. 300, sales tax @ 3%.
Calculate the total amount paid by Akila to the shopkeeper.



10. Index number measure relative changes in industrial production, agricultural production and also in our ____ of living.

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11. The year for which we calculate the cost of

living index is referred as ___ year.

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12. Rakesh purchased a shirt for Rs. 560 including sales tax. Find the rate of sales tax if its list price is Rs. 500.



13. Aryan purchased a Plasma TV for Rs. 92,000

including sales tax. Find the list price of the TV,

if its sales tax is 15%.



14. Akhila visits a readymade garment shop and purchases a trouser for Rs. 800, sales tax
@4%. Calculate the total amount paid by Akhila to the shopkeeper.



15. If the index number of sales prices in March 2006 compared to March 2005 is 124, there is an increase of ____ in the wholesale price from March 2005 to March 2006.



Short Answer Type Questions

1. The cost of living index in the year 2006, taking 2004 as the base year, on certain commodities is 162.75. If the total expenditure in 2004 was Rs. 12,500, then find the total cost for the same commodities in the year 2006.



2. Akhila visits a readymade garment shop and purchases a jean jacket for Rs. 600, sales tax @
5%. Calculate the total amount paid by Akhila to the shopkeeper.

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3. The reference year with respect to which we measure the changes in the current year is called





5. If the cost of living index of a certain year is 180 and the expenditure in the current year is Rs. 36,000, then the expenditure in the base year is ___.

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1. If the total expenditures in the base year and current year are equal, then its index number is ___.

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2. Ganga visits a shopping mall to buy a necklace costing Rs. 42, 000. The rate of sales tax is 12%. She asks the shopkeeper to allow a discount on the price such that she has to pay

Rs. 44,240 including sales tax. Find the

discount needed on the price.



3. Calculate the cost of living index for the year

2002, taking 1994 as the base year. Use weighted average method.





4. Shilpa purchases a refrigerator having a list price of Rs. 10,500 at 12% discount. If sales tax is charged @ 5%, then find the amount Shilpa has to pay to the shopkeeper.



5. From the following data, using weighted average method, calculate the cost of living index for the year 2006, taking 2002 as the

base year.





Level 1

 A shopkeeper sells an article, whose cost price is Rs. 400, for Rs. 462 including sales tax
 (a) 5%. Find the profit percentage of the shopkeeper.

A. 0.07

B. 0.12

C. 0.1

D. 0.08

Answer: C





 Varshit purchased a pair of shoes for Rs.
 3360 including a VAT of 12%. Find the amount he paid towards VAT.

A. Rs. 240

B. Rs. 360

C. Rs. 300

D. Rs. 410

Answer: B



3. Nalini purchases a bicycle for Rs. 2093 inclusive of sales tax @ 15%. Find its list price.

A. Rs. 1802

B. Rs. 1820

C. Rs. 1280

D. Rs. 1208

Answer: B

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4. On certain consumable goods, the total expenditure of a family was found to be Rs. 18,000 in the year 2005. If the cost of living index for the year 2006, taking 2005 as the base year, is 240, then find the expenditure of the family on the same quantity of consumable items in the year 2006.

A. Rs. 43,200

B. Rs. 48,200

C. Rs. 24, 000

D. Rs. 28,000

Answer: A

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5. If the index number of wholesale prices in May 2004 as compared to May 2003 is 91, then the expenditure in the year 2004 is less by ___.

A. 0.81

B. 0.71

C. 0.91

D. 0.11

Answer: C



6. A shopkeeper sells an article, whose cost price is Rs. 500 for Rs. 616 including a sales tax @x%, and for a profit of Rs. 50. Find x.

A. 0.08

B. 0.1

C. 0.12

D. 0.09

Answer: C

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7. The cost of living index in 2007, taking 2006 as the base year, is 175. The total expenditures in 2006 and 2007 are Rs. (4x+y) and Rs. (3x+4y) respectively, where x and y are integers. Which

of the following can be the total expenditure

of 2007 ?

A. Rs. 48, 000

B. Rs. 39, 000

C. Rs. 43,000

D. Rs. 45,500

Answer: D

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8. Dheeraj bought a watch whose list price is Rs. 6500. The shopkeeper allowed a discount of 6%, and asked to pay 10% VAT. Find the amount that Dheeraj paid for buying the watch.

A. Rs. 6481

B. Rs. 6625

C. Rs. 6721

D. Rs. 6845

Answer: C



considering the base year as 2000, is 225. Find

Х.

A. 15

B. 18

C. 12

D. 20

Answer: A



10. The total expenditure of a certain family was Rs. 13, 090 in the year 2000. If the cost of living index in the year 2006, when compared to the cost in the year 2000, is 120, then the

total expenditure in the current year is ____. (in

Rs.)

A. 14280

B. 15240

C. 16840

D. 15708

Answer: D



11. Vikram purchased a TV for Rs. 13,500 including sales tax. If the rate of sales tax is 8%, then the list price of the TV is ____. (in Rs.)

A. 13100

B. 12800

C. 12500

D. 11950

Answer: C

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Find the cost of living index in the year 2007, taking 2001 as the base year, based on the information given above.

A. 127.50

B. 128.75

C. 132.50

D. 135.25

Answer: A



13. In the year 1980, the total expenditure of a family was Rs. 8400. The cost of living index for the year 1980, by taking 1940 as the base year, was 240. Then the expenditure of the family in the year 1940 was

A. Rs. 3000

B. Rs. 3000

C. Rs. 3800

D. Rs. 4200

Answer: B



14. The ratio of the total expenditure for the years 2000 and 2006 is 5:8. The cost of living index of 2006, taking 2000 as the base year, is

A. 125

B. 62.5

C. 160

D. Cannot be determined

Answer: C

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15. When the year 2000 is taken as the base year, the cost of living index is increased by 20% from 2006 to 2007. If the total

expenditure in the base year is Rs. 20,000, and the cost of living index of 2007 is 210, then the total expenditures (in Rs.) in the years 2006 and 2007 are____.

A. 35,000, 42,000

B. 30,000, 40, 000

C. 35,000, 45, 000

D. 30,000, 42,000

Answer: A

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1. The cost of living index of the year 2007, when compared to year 2005, is 165.7. The cost of living index for these two years is calculated considering the prices of certain essential commodities. The amount spent by Anil in year 2005 towards essential commodities is Rs. 35,000. What is the amount he spent in the year 2007 towards essential commodities, if the quantity of consumption in both the years

remains the same ?

A. Rs. 37,762

B. Rs. 48,719

C. Rs. 57,995

D. Rs. 46,750

Answer: C





The cost of living index for the year 2007, considering the year 2000 as the base year, is 250. Find x.

A. 167

B. 158

C. 150

D. 162

Answer: C



3. Sujit purchased a furniture set which is listed at Rs. 58,600 followed by a discount of 10%. If sales tax is charged at the rate of 5%, then the amount Sujit has to pay to buy the furniture is _____. (in Rs.)

A. 53477

B. 55377

C. 56446

D. 54658

Answer: B



4. Ananya goes to a store to buy a mobile phone costing Rs. 15, 675. The rate of sales tax is 10%. She asks the store keeper to allow a discount to such an extent that she has to pay Rs. 15,675 inclusive of sales tax. Find the

amount of discount to be allowed by the

shopkeeper.

A. Rs. 1220

B. Rs. 1567

C. Rs. 1375

D. Rs. 1425

Answer: D



5. Rishi purchased a scientific calculate for Rs. 736, including sales tax. If the list price of the calculator is Rs. 640, the rate of sales tax is

A. 0.12

B. 0.15

C. 0.18

D. 0.2

Answer: B



6. Rohit went to a shop and purchased to following goods.

(i) A double cot bed listed at Rs. 8360, sales tax(a) 10%.

(ii) A wardrobe listed at Rs. 8650, sales tax@8%.

(iii) A TV stand listed at Rs. 500, sales tax @9%.

Find the total tax paid by Rohit on the above purchases. (in Rs.)

A. 1483

B. 1523

C. 1653

D. 1573

Answer: D

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7. Alol bought a scientific calculator for Rs. 728, including sales tax. The list price of the

calculator was Rs. 650. Find the rate of sales

tax.

A. 0.09

B. 0.1

C. 0.11

D. 0.12

Answer: D



8. A furniture set was listed at Rs. 62,400. It was sold at 20% discount. The sales tax charged on it was 10%. Find the amount to be paid to purchase the furniture. (in Rs.)

A. 54912

B. 57408

C. 52416

D. 49920

Answer: A



9. Pavan went to a mobile phone store. He wanted to buy a mobile phone listed at Rs. 6075. The rate of sales tax was $11\frac{1}{9}$ %. He requested the shopkeeper to give a discount such that he only needed to pay Rs. 6075 including sales tax. Find the discount Pavan must be given to fulfill his request. (in Rs.)

A. 607.50

B. 596.50

C. 580.50

 $D.\,616.50$

Answer: A



10. The price of a TV, inclusive of sales of 12%, is Rs. 15,680. If the sales tax rate is increased to 14%, then what additional amount of money a customer should pay for it ? (in Rs.)

A. 280

B. 240

C. 260

D. 300

Answer: A

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1. The price of a washing machine, inclusive of sales tax at 11%, is Rs. 5550. If sales tax is increased to 13%, then what amount of additional money a customer should pay to buy it.

A. Rs. 175

B. Rs. 240

C. Rs. 700

D. Rs. 650

Answer: C



2. Three essential commoditites, the quantities of their consumption and their prices in the years 2006 and 2007 are listed below. The cost of living index for the years 2006 and 2007 is calculated on the prices of these three commodities only.



Find the cost of living index of the year 2007,

taking 2006 as the bae year.

A. 200

B. 100

C. 150

D. 50

Answer: A



3. Ritesh went to a shopping mall to buy a trouser costing Rs. 3500. On his request, the shopkeeper allowed two successive discounts of x% and y% (x > y). If Ritesh paid rs. 2618 including sales tax of 10%, then which of the following could be the discount rates given by the shopkeeper ?

A. 20%, 15%

B. 20%, 10%

C. 20%, 25%

D. 15%, 10%

Answer: A

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4. On certain consumable commodities, the total expenditure of a family was found to be Rs. 28,000 in the year 1994. If the cost of living index for the year 2000, taking 1994 as the base year, is 265, then the expenditure of the

family, on the same quantities of consumable

commodities, in the year 2000 is ____.

A. Rs. 78,000

B. Rs. 79,000

C. Rs. 78,200

D. Rs. 74,200

Answer: D

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5. Anshu visits a super market and purchased the following goods :

(a) A dinner set which is listed at Rs. 1750, sales tax @5%.

(b) A computer table, for Rs. 2700 including sales tax @8%.

(c) A bag of rice which is listed at Rs. 4800. sales tax @4%.

Find the amount of tax paid by Anshu on these goods.

A. Rs. 479.50

B. Rs. 384.50

C. Rs. 345.00

D. Rs. 493.00

Answer: A

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6. Ashok sold an article, whose cost price is Rs.

300, for Rs. 351 including sales tax @8%. Find

his profit percentage.



Answer: B



7. Arun bought a motorbike at a discount of 10%, and paid a sales tax @8%. He paid it for Rs. 47,142. Find it list price. (in Rs.)

A. 48500

B. 49500

C. 50500

D. 51500

Answer: A

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8. A shopkeeper sold an article, costing Rs. 360, for Rs. 495 including a sales tax of y% at a profit of Rs. 90. Find y.

A. 8

B. 12.5

C. 15

D. 10

Answer: D



9. The ratio of the total expenditures of a family for the years 2002 and 2007 is 4:7. Find

the cost of living index for the year 2007,

taking 2002 as the base year.

A. 135

B. 155

C. 175

D. 195

Answer: C

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10. The cost of living index of the year 2006, taking the year 2005 as the base year, is 225. The total expenditure in 2005 and 2006 are Rs. (2x+7y) and Rs. (7x+y) respectively, where x and y are positive integers. Which of the following can be the total expenditure in 2005 ? (in Rs.)

A. 37600

B. 47600

C. 28400

D. 27200

Answer: A



11. The total expenditure of a family 2003 was Rs. 15,000. Taking this year as the base year, the cost of living index in 2007 and 2008 were cacluated. The cost of living index 2008 were calculated. The cost of living index 2008 was 25% more than that in 2007. The cost of living index in 2008 was 160. Find the total expenditure of the family in 2007. (in Rs.)

A. 17500

B. 18000

C. 18400

D. 19200

Answer: D



12. Ravi bought a pair of slippers for Rs. 944, including a VAT of 18%. Find amount of VAT he paid. (in Rs.)

A. 108

B. 132

C. 144

D. 128

Answer: C



13. Ramesh bought a book whose list price is

Rs. 750. The shopkeeper gave him 8% discount.

If the rate of VAT is 15%, then find the amount

that Ramesh paid for the book. (in Rs.)

A. 793.50

B. 767.50

C.805.50

D. 813.50

Answer: A



14. The list price of an AC is Rs. 20,000. The shopkeeper sold it by allowing a 4% discount and charged 5% sales tax. By mistake , while calculating the bill, he considered 5% discount and 4% sales tax. As a result, the customer must have paid ____.

A. Rs. 200 less

B. Rs. 400 less

C. Rs. 400 more

D. Rs. 200 more



