1. A college has to finance its new project by way of donations. It gets 75 % of the money required by collecting Rs. 600 each from 60 % of the population they expect to donate the money. What will be the per head contribution that will be required from the remaining people ? **(CAT 2001)**

1. Rs 300   2. Rs 250
3. Rs 400   4. Rs 500

2. After receiving two successive raises, Ahmed's salary becomes 75/40 times of his original salary. By what percent his salary has been increased the first time, if the second rise in percentage was twice as compared to the first rise in percentage?

1. 25   2. 50   3. 20
4. 30   5. 100

3. Let A and B be two solid spheres such that the surface area of B is 300 % higher than the surface area of A. The volume of A is found to be k % lower than the volume of B. The value of k must be **(CAT Nov. 2003)**

1. 85.5   2. 92.5   3. 90.5
4. 87.5

4. In an examination 38 % fail in English and 61 % pass in Hindi and 23 % fail in both. Find the actual fail percentage, assuming a student is passing only if he is pass in both of these subjects.

1. 35 %   2. 45 %   3. 55 %
4. 46%   5. 54%

5. Mr. Bhansali's salary is increased by 50 % and then it has been decreased by $33\frac{1}{3}$ %. The final salary is same as the final salary of Mr. Black after it has been increased by $33\frac{1}{3}$ % and then it has been decreased by 50 %. What is the ratio of the original salaries of Mr. Bhansali and Mr. Black respectively?

1. 7 : 4   2. 3 : 2   3. 1 : 1
4. 5 : 4   5. 2 : 3

6. At an election a candidate won the election by a majority of 24,000 votes, while 10 % of the voters did not vote and he had a clear support of 48 % of the entire list. How many voters are there?

1. 400,000   2. 144,000   3.   40,000
                        4. 192,000

7. In a certain number system the product of 44 and 11 is 1034. What is 3111 of this particular number system in the decimal system? **(CAT 2001)**

1. 406   2. 1,086   3. 213

4. 691

8. In a village consisting of p persons, x % can read and write. Of the males alone y %, and of the females alone z % can read and write. Find the number of males in the village in terms of p, x, y and z if $z < y$.

1. $\dfrac{p(x-z)}{y}$ 2. $\dfrac{p(x-z)}{y+z}$ 3. $\dfrac{p(y-x)}{(x-z)}$

4. $\dfrac{p(x-z)}{(y-z)}$

9. In the MOCK CAT paper at AMS, questions were asked in five sections. Out of the total students, 5 % candidates cleared the cut-off in all the sections and 5 % cleared none. 25% cleared only one section and 20 % cleared four sections. If 24.5 % of the entire candidates cleared two sections and 246 candidates cleared three sections, find out how many candidates appeared at the MOCK CAT at AMS.

1. 1,000   2. 1,200   3. 1,500   4. 2,000

5. 1800

10. A truck travelling at 70 km./hr. consumes 30 % more fuel than another that is travelling at 50 km/hr. If the truck travelling at 50 km/h has a fuel efficiency of 19.5 km /litre, then how many km can the truck travelling at 70 km/h travel on 10 litres of fuel? **(CAT 2000)**

1. 130   2. 140   3. 150

4. 175

11. **40 % of the employees of a Co. are men. Of these 75 % earn more than Rs. 25,000 p.a. If 45 % of the total employees of the Co. earn more than Rs. 25,000 p.a., then what fraction of the women earn more than Rs. 25,000 p.a.** (CAT 1999)**?**

1. 2⁄11

2. 1⁄4

3. 1⁄3

4. 3⁄4

INTEREST –

1. A sum of money amounts to Rs. 2,400 in 3 years and Rs. 3,000 in 5 years at a certain R % on simple interest. The sum is

1. Rs. 2,250   2. Rs. 2,000   3. Rs. 1,500
4. Rs. 1,200   5. Rs. 1,800

2. How much money should be invested at 6 % for 2 ½ year to earn the same interest as Rs. 2400 will earn at 5 % for 2 years?

1. Rs. 1,800   2. Rs. 1,600   3. Rs. 2,000
                    4. None of these

3. A man invested Rs. 18,900 in two parts, first at 10% for 3 years and the second at 8 % for 5 years and received equal amounts. Find the second principal.

1. Rs. 9,100   2. Rs. 9,800   3. Rs. 8,100
4. Rs. 10,800   5. Rs. 9,000

4. The rate of simple interest for 3 successive years 18%, 9% & 13%. If the principal is Rs. 6000, what is 3 years accumulated interest (in Rs.)?

1. 1900   2. 2200   3. 2000
4. 1800   5. 2400

5. The compound interest on Rs. 6,000 at 10 % p.a. for 2½ years, compounded annually will be

1. Rs. 1,600   2. Rs. 1,623   3. Rs. 1,723
4. Rs. 1,500

6. The compound interest on a principal of Rs. 2,000 at the rate of P % in the same time period, in which Rs. 5,000 becomes Rs. 10,000 at the rate of 50 % simple interest, is Rs. 420. Find the value of P.

1. 8%   2. 9%   3. 10%
4. 15%

7. The equal annual installment, which will discharge a debt of Rs. 4,600 due after 4 years at 10 % simple interest is

1. Rs. 1,150   2. Rs. 1,400   3. Rs. 1,610

4. None of these

8. If the simple interest is 10.5 % annual and compound interest is 10 % annual, compounded annually, find the difference between the interests after 3 years on a sum of Rs. 1,000.

1. Rs. 15   2. Rs. 12   3. Rs. 16

4. Rs. 11

9. A sum of Rs. 1,275 is borrowed at 4% p.a. compound interest and paid back in 2 equal annual installments. What is the amount of each installment?

1. Rs. 676   2. Rs. 625   3. Rs. 729

4. Rs. 637.50

10. Hans Kumar borrows Rs. 7,000 at simple interest from the village moneylender. At the end of 3 years, he again borrows Rs. 3,000 and closes his account after paying Rs. 4,615 as interest after 8 years from the time he made the first borrowing. Find the rate of interest.

1. 3.5 %   2. 4.5 %   3. 5.5 %

4. 6.5 %

11. A sum of money doubles itself in 4 years at simple interest, in how many years, it would become 7 times of itself?

1. 12   2. 24   3. 18
4. 20   5. 16

12. A sum of money triples itself in 4 years at SI, in how many years, it would become 7 times of itself?

1. 12   2. 20   3. 16
4. 24   5. 18

13. At what rate % p.a. will a sum of Rs. 3000 amounts to Rs. 3307.50 in 6 months CI, compounded quarterly?

1. 22   2. 20   3. 15
4. 18   5. 16

1. A shopkeeper professes to sell his goods on cost price, but with a wrong balance he loses 20 %. What does the balance weigh wrongly in place of 1 kg?

1. 800 gm   2. 1200 gm   3. 1250 gm   4. 1500 gm   5. 750 gm

2. In the popular village of Pashutransfer, Mr. Gaibailwala sells his cow for Rs. 920 at some profit. Had he sold his cow at Rs. 560, the percentage loss incurred would be twice that of the percentage profit earned in the first case. What is the cost of the cow?

1. Rs. 750   2. Rs. 820   3. Rs. 835

                     4. Rs. 800

3.   A newspaper vendor sells three kinds of periodicals – dailies, weeklies and fortnightlies. The fortnightlies sell for Rs. 40 for a profit of 25 %. The weeklies sell for Rs. 24 at a profit of 33 $\frac{1}{3}$ %. The dailies sell for Rs. 6 at a profit of 50 %. Govt. passes a rule, as per which a vendor cannot sell more than a particular no. of periodicals per month. In order to maximize his profits, what should the vendor do? (Given he can sell as many copies of each periodical as he desires and he has enough of investments)

1. Sell maximum weeklies   2. Sell maximum
   fortnightlies
3. Sell maximum dailies   4. Depends on the number
   fixed by the govt.

4. I bought two articles for Rs. 1500. I sold one at a profit of 50 % and the other at a loss of 25 %. But on the whole I neither gained nor lost. Cost of the more expensive articles was

1. Rs. 500   2. Rs. 1,000   3. Rs. 600   4. Rs. 900   5. Rs. 750

5. A merchant makes a profit of 20 % by selling an article. What would be the percentage change in the profit if he had paid 10 % less for it and the customer had paid 10 % more for it?

1. 120 %   2. 125 %   3. 110 %   4. 150 %

6. Cheap and Best, a kiryana shop bought some apples at 4 per rupee and an equal number at 5 per rupee. He then sold the entire lot at the rate of 9 for 2 rupees. What is his percentage profit or loss?

1. 1.23 % loss   2. 6.66 % profit   3. 8.89 % loss   4. No gain no loss

7. A shopkeeper gives 3 consecutive discounts of 10 %, 15 %, and 15 % after which he sells his goods at a percentage profit of 30.05 % on the C.P. Find the value of the percentage profit that the shopkeeper would have earned if he had given discounts of 10 % and 15 % only.

1. 53 %   2. 62.5 %   3. 72.5 %   4. 68.6 %   5. 50 %

8. Find the change in the percentage profit for a fruit vendor who, after finding 20% of the fruits rotten, increased his selling price by 10% over and above the 15 % that he was already charging.

1. –15   2. +11.5   3. –13.8
       4. Can't say

9. Manish bought a combined total of 25 monitors and printers. He marked up the monitors by 20 % on the cost price, while each printer was marked up by Rs. 2,000. He was able to sell 75 % of the monitors and 2 printers and make a profit of Rs. 49,000. The remaining monitors and 3 printers could not be sold by him. Find his overall profit or loss if he gets no return on investment on unsold items and it is known that a printer costs 50 % of a monitor.

1. Profit of Rs. 49,000   2. Loss of Rs. 21,000
3. Loss of Rs. 41,000   4. Inadequate data

10. A restaurant has a pricing policy that allows for the following mark-ups:

Soups	Mark – up of	40 %
Starters	Mark – up of	50 %
Meals	Mark – up of	25 %
Breads	Mark – up of	75 %
Sweets	Mark – up of	75 %

Mr. Amarnath and his family of 4 went to a restaurant and got a bill for: Soups (Rs. 126), Starters (Rs. 180), Meals (Rs. 300), Breads (Rs. 245) and Sweets (Rs. 210). Find the profit for the restaurant.

1. Rs. 341   2. Rs. 351   3. Rs. 361   4. Rs. 371

11. A seller codes the prices of his items so that he can read right to left. So an item coded as 607 sells at 706. An item is coded as 206. If perchance the item is sold at Rs. 206, what is the notional loss?

1. Rs. 386   2. Rs. 406   3. Rs. 396   4. Rs. 296   5. Can't say