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INSTALMENT BUYING

- **Cash Price:** Amount which a customer has to pay in full for the article at the time of purchase.
- **Cash down payment:** Partial payment made by a customer for an article at the time of purchase, under instalment plan.
- **Instalments :** Amount which is paid by the customer at regular intervals towards the remaining part of the S.P. (or cash price) of an article.
- **Interest under the instalment plan :** Under the instalment plan the buyer pays some extra amount which is interest on the deffered payment.

Under simple interest scheme $S.I. = \frac{p \times r \times t}{100}$.

Under compount interest scheme $C.I. = A - P$

$$= P \left[\left(1 + \frac{r}{100} \right)^n - 1 \right]$$

- **Types of word problems related to instalment scheme :** To find the rate of Interest
To find the amount of instalment
To find the cash price
Problems involving compound interest.

CHECK YOUR PROGRESS:

1. A dealer offers a micro wave oven for Rs. 5800 cash. A customer agrees to pay Rs. 1800 cash down and 3 equal instalments, the balance amount to be paid in equal instalments is:
(A) Rs. 8000 (B) Rs. 6000 (C) Rs. 4000 (D) Rs. 2000
2. A watch is available for Rs. 970 cash or Rs. 350 cash down payment followed by 3 equal monthly instalments. If the rate of interest under this instalment plan is 24% per annum. Find the amount of each instalment.
3. A cycle is available for Rs. 2700 cash or Rs. 600 cash down payment followed by 3 monthly instalments of Rs. 750 each. Find the rate of interest per annum charged under this instalment plan.
4. A mixi was purchased by paying Rs. 260 as cash down payment followed by three equal monthly instalments of Rs. 390 each. If the rate of interest charged under the instalment plan is 16% per annum, find the cash price of the mixi.
5. A washing machine is available for Rs. 15000 cash or Rs. 2000 cash down payment alongwith two equal half yearly instalments. If the rate of interest charged under the instalment plan is 16% per annum compounded half yearly, find the amount of each instalment.

STRETCH YOURSELF:

1. A DVD player was purchased by a customer with a cash down payment of Rs. 2750 and agreed to pay 3 equal half yearly instalments of Rs. 331 each. If the interest charged was 20% per annum compounded half yearly, then find the cash price of the DVD player.
2. The selling price of a washing machine is Rs. 14000. The company asked for Rs. 7200 in advance and the rest to be paid in equal monthly instalments of Rs. 1400 each. If the rate of interest is 12% per annum, find the number of instalments.

3. A table is sold for Rs. 750 as cash down payment followed by Rs. 436 after a period of 6 months. If the rate of interest charged is 18% per annum, find the cash price of the table.

ANSWERS**CHECK YOUR PROGRESS:**

1. C
2. Rs. 220
3. $44\frac{4}{9}\%$
4. Rs. 1500
5. Rs. 7290

STRETCH YOURSELF:

1. Rs. 6060
2. 5
3. Rs. 1150