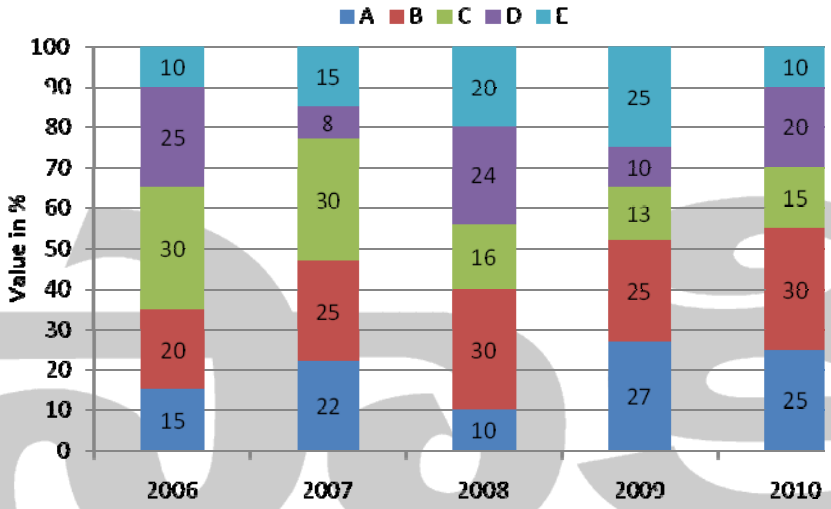
DATA INTERPRETATION-II

PROBLEMS

Directions (Q. 1-5): Study the following graph carefully and answer accordingly:

The following graph shows the percentage of different types of cars produced by the company during five years. Total no. of cars produced by the company in 2006, 2007, 2008, 2009 and 2010 are 20000, 18000, 25000, 22000 and 28000 respectively.



1. What was the difference between the production of A type cars in 2009 and that of C type in 2008?

a) 2050 b) 2940 c) 2190 d) 2580 e) None of these

ANSWER: e

A-type cars in 2009 = $\frac{27}{\cancel{100}} \times \cancel{22000} = 5940$

C-type cars in 2008 = $\frac{16}{\cancel{100}} \times \cancel{25000} = 4000$

$\therefore$ Difference of above two = 5940 – 4000 = 1940

2. No. of D type cars produced in 2006 is equal to that of which type of cars produced in 2008?

a) C b) A c) B d) E e) None of these

ANSWER: d

Let x % be the type of cars in 2008 equal to D-type cars in 2006 then

$x \times$ total cars of 2008 = D-type cars in 2006

$\therefore x \times 25000 = 25 \times 20000$

$\therefore x = 20$

E type cars has 20% in 2008

3. In the case of which of the following types of cars was the percentage increase from 2009 to 2010 the maximum?

a) D b) E c) A d) B e) None of these

ANSWER: a

It is apparent from the graph that percentage increase is maximum for D-type cars.

4. If the number of B type cars manufactured in 2009 were the same as that in 2008, what would be the approximate percentage share of B type in the total production of 2009?

a) 30% b) 25% c) 35% d) 40% e) 20%

ANSWER: c

B-type cars produced in 2008 = $\frac{30}{100}\times 25000 = 7500$

If 7500 B-type cars are produced in 2009 then its share = $\frac{7500}{22000}\times 100 = 34.3 \cong$ 35%

5. If 90% of B type cars produced in all the given years are being sold by the company, then how many B type cars are left unsold by the company?

a) 3010 b) 2890 c) 3270 d) 2990 e) None of these

ANSWER: d

Total B-type cars produced

$$= \frac{20}{100}\times 20000 + \frac{25}{100}\times 18000 + \frac{30}{100}\times 25000 + \frac{25}{100}\times 22000 + \frac{30}{100}\times 28000$$

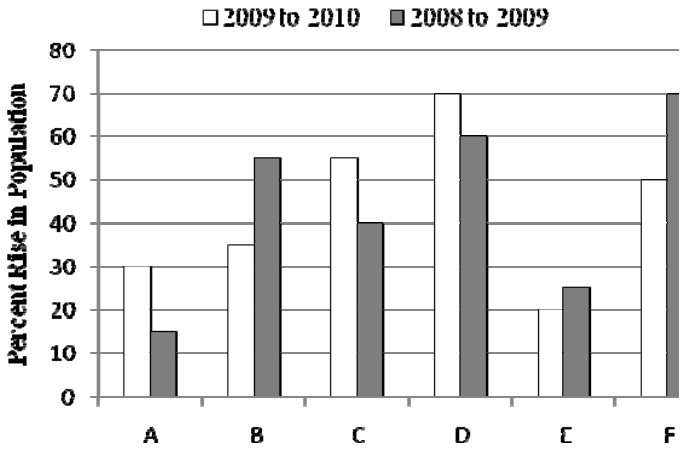
$$= 4000 + 4500 + 7500 + 5500 + 8400$$

$$= 29,900$$

$\therefore$ No. of B type cars unsold = $\frac{10}{100}\times 29900 = 2990$ [$\because$ 90% were sold]

Directions (Q. 6-10): Study the following graph carefully and answer the questions given below:

Percentage rise in population of six different states A, B, C, D, E and F from the year 2008 to the year 2009 and the year 2009 to the year 2010.



Important Formula: If a value is successively increased by x% and y% respectively then the overall increase will be $\left(x+y+\frac{xy}{100}\right)\%$

6. If the population of States C and D in 2009 are in the ratio of 2 : 3 respectively and the population of state 'C' in 2008 was 2.5 lakhs, what was the population of state 'D' in 2009?

a) 5.25 lakhs b) 4.75 lakhs
c) 3.5 lakhs d) 6 lakhs e) None of these

ANSWER: a

Population of C in 2008 = 2.5

$\therefore$ Population of C in 2009 $=2.5\times\frac{140}{100}=3.5$

Population of C and D in 2009 are in the ratio of 2 : 3

$\therefore$ Population of D in 2009 $=\frac{3.5}{2}\times 3=5.25$

7. In 2008 the population of States B and D are equal and the population of State B in 2010 is 4 lakhs. What approximately was the population of State 'D' in 2010?

a) 3 lakhs b) 3.5 lakhs c) 6 lakhs d) 5 lakhs e) 4.5 lakhs

ANSWER: d

Population of B in 2008 be x then population of B in 2010 = $x\times\frac{135}{100}\times\frac{155}{100}$

$\therefore 4\times\frac{100}{135}\times\frac{100}{155}=x$

$\therefore$ Population of D in 2008 = $\frac{4\times100\times100}{135\times155}$

$\therefore$ Population of D in 2010 = $\frac{4\times100\times100}{135\times155}\times\frac{170}{100}\times\frac{160}{100}=\frac{4\times170\times160}{135\times155}\cong 5$

8. Population of State 'E' in 2008 was what fraction of its population in 2010?

a) $\frac{4}{5}$ b) $\frac{3}{2}$ c) $\frac{5}{8}$ d) $\frac{3}{4}$ e) $\frac{2}{3}$

ANSWER: e

Population E in 2008 be 100.

Then its population in 2010 = $100\times\frac{120}{100}\times\frac{125}{100}$ = 150

Required fraction = $\frac{100}{150}=\frac{2}{3}$

9. If the population of State 'B' in the year 2008 was 5 lakhs, what was **approximately** its population in the year 2010?

a) 9.5 lakhs b) 8 lakhs c) 10.5 lakhs d) 14.5 lakhs e) 11 lakhs

ANSWER: c

Population of B in 2010 = $5\times\frac{135}{100}\times\frac{155}{100}=5\times\frac{27}{20}\times\frac{31}{20}=\frac{837}{80}\cong 10.5$

10. Population of State 'F' in 2009 was **approximately** what percent of its population in 2010?

a) 60 b) 67 c) 75 d) 55 e) 72

ANSWER: b

Population F in 2009 be 100.

Then its population in 2010 = $100\times\frac{150}{100}$ = 150

$\therefore$ Required percentage = $\frac{100}{150}\times 100\cong 67\%$