

UGC NET Paper 1 2011 dec

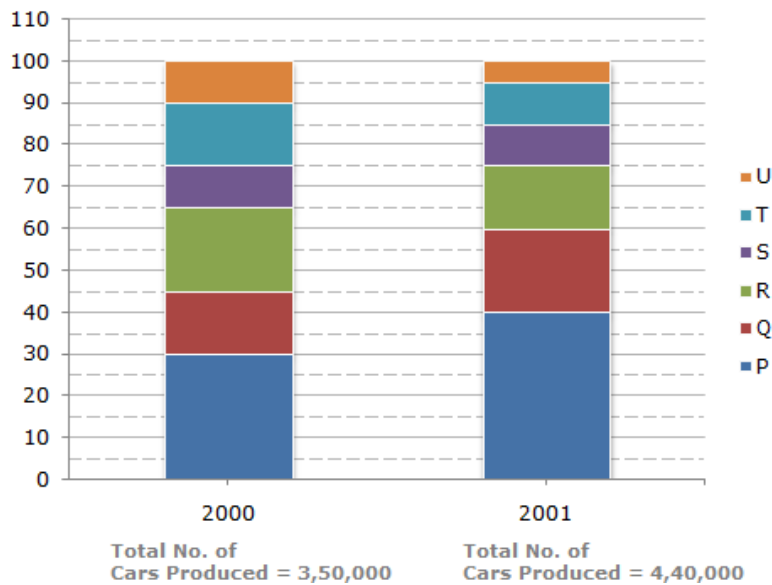
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Previous Years Solved Questions - UGC NET Paper 1 for July 2018

DI (Hindi/Eng)-37 with ANS

The bar graph given below shows the percentage distribution of the total production of a car manufacturing company into various models over two years.

Percentage of Six different types of Cars manufactured by a Company over Two Years



What was the difference in the number of Q type cars produced in 2000 and that produced in 2001?
2000 में उत्पादित Q प्रकार की कारों और 2001 में उत्पादित कारों की संख्या में कितना अंतर था?

- [A.](#) 35,500
- [B.](#) 27,000
- [C.](#) 22,500
- [D.](#) 17,500

Answer: Option A

Explanation:

Total number of Q type cars produced in 2001

$$=(60 - 40)\% \text{ of } 4,40,000 = 88,000.$$

Total number of Q type cars produced in 2000

$$=(45 - 30)\% \text{ of } 3,50,000 = 52,500.$$

$$\therefore \text{ Required difference} = (88000 - 52500) = 35,500.$$

Total number of cars of models P, Q and T manufactured in 2000 is? 2000 में निर्मित मॉडल P, Q और T की कारों की कुल संख्या है?

A. 2,45,000

B. 2,27,500

C. 2,10,000

D. 1,92,500

Answer: Option C

Explanation:

Analysis of the graph:

We shall first determine the number of cars of each model produced by the Company during the two years:

In 2000 : Total number of cars produced = 3,50,000.

$$P = (30 - 0)\% \text{ of } 3,50,000 = 30\% \text{ of } 3,50,000 = 1,05,000.$$

$$Q = (45 - 30)\% \text{ of } 3,50,000 = 15\% \text{ of } 3,50,000 = 52,500.$$

$$R = (65 - 45)\% \text{ of } 3,50,000 = 20\% \text{ of } 3,50,000 = 70,000.$$

$$S = (75 - 65)\% \text{ of } 3,50,000 = 10\% \text{ of } 3,50,000 = 35,000.$$

$$T = (90 - 75)\% \text{ of } 3,50,000 = 15\% \text{ of } 3,50,000 = 52,500.$$

$$U = (100 - 90)\% \text{ of } 3,50,000 = 10\% \text{ of } 3,50,000 = 35,000.$$

In 2001 : Total number of cars produced = 4,40,000.

$$P = (40 - 0)\% \text{ of } 4,40,000 = 40\% \text{ of } 4,40,000 = 1,76,000.$$

$$Q = (60 - 40)\% \text{ of } 4,40,000 = 20\% \text{ of } 4,40,000 = 88,000.$$

$$R = (75 - 60)\% \text{ of } 4,40,000 = 15\% \text{ of } 4,40,000 = 66,000.$$

$$S = (85 - 75)\% \text{ of } 4,40,000 = 10\% \text{ of } 4,40,000 = 44,000.$$

$$T = (95 - 85)\% \text{ of } 4,40,000 = 10\% \text{ of } 4,40,000 = 44,000.$$

$$U = (100 - 95)\% \text{ of } 4,40,000 = 5\% \text{ of } 4,40,000 = 22,000.$$

Total number of cars of models P, Q and T manufacture in 2000

$$= (105000 + 52500 + 52500)$$

$$= 2,10,000.$$

If the percentage production of P type cars in 2001 was the same as that in 2000, then the number of P type cars produced in 2001 would have been? यदि 2001 में P प्रकार की कारों का उत्पादन प्रतिशत 2000 के समान था, तो 2001 में उत्पादित P प्रकार की कारों की संख्या कितनी होगी?

A. 1,40,000

B. 1,32,000

C. 1,17,000

D. 1,05,000

Answer: Option B

Explanation:

If the percentage production of P type cars in 2001

$$= \text{Percentage production of P type cars in 2000}$$

$$= 30\%.$$

then, number of P type cars produced in 2001

$$= 30\% \text{ of } 4,40,000$$

$$= 1,32,000.$$

If 85% of the S type cars produced in each year were sold by the company, how many S type cars remain unsold? यदि प्रत्येक वर्ष में उत्पादित S प्रकार की 85% कारें कंपनी द्वारा बेची जाती हैं, तो कितनी S प्रकार की कारें बिना बिके रह जाती हैं?

A. 7650

B. 9350

C. 11,850

D. 12,250

Answer: Option C

Explanation:

Number of S type cars which remained unsold in 2000 = 15% of 35,000

and number of S type cars which remained unsold in 2001 = 15% of 44,000.

∴ Total number of S type cars which remained unsold

$$= 15\% \text{ of } (35,000 + 44,000)$$

$$= 15\% \text{ of } 79,000$$

$$= 11,850.$$

For which model the percentage rise/fall in production from 2000 to 2001 was minimum? किस मॉडल के लिए 2000 से 2001 तक उत्पादन में प्रतिशत वृद्धि/गिरावट न्यूनतम थी?

A. Q

B. R

C. S

D. T

Answer: Option B

Explanation:

The percentage change (rise/fall) in production from 2000 to 2001 for various models is:

$$\text{For P} = \left[\frac{(176000 - 105000)}{105000} \times 100 \right] \% = 67.62\%, \text{ rise.}$$

$$\text{For Q} = \left[\frac{(88000 - 52500)}{52500} \times 100 \right] \% = 67.62\%, \text{ rise.}$$

$$\text{For R} = \left[\frac{(70000 - 66000)}{70000} \times 100 \right] \% = 5.71\%, \text{ fall.}$$

$$\text{For S} = \left[\frac{(44000 - 35000)}{35000} \times 100 \right] \% = 25.71\%, \text{ rise.}$$

$$\text{For T} = \left[\frac{(52500 - 44000)}{52500} \times 100 \right] \% = 16.19\%, \text{ fall.}$$

$$\text{For U} = \left[\frac{(35000 - 22000)}{35000} \times 100 \right] \% = 37.14\%, \text{ fall.}$$

∴ Minimum percentage rise/fall in production is the case of model R.