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

DI (Hindi/Eng)-34 with ANS

The bar graph given below shows the percentage distribution of the total expenditures of a company under various expense heads during 2003.

Percentage Distribution of Total Expenditure of a Company
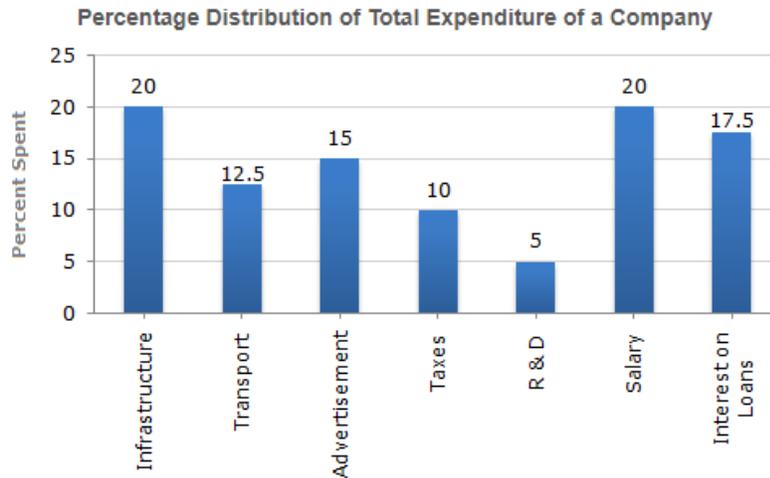
The total amount of expenditures of the company is how many times of expenditure on research and development? कंपनी के व्यय की कुल राशि अनुसंधान और विकास पर व्यय का कितना गुना है?

A. 27

B. 20

C. 18

D. 8

Answer: Option **B**
Explanation:
Let the total expenditures be Rs. *x*.

Then, the expenditure on Research and Development (R & D)

= Rs. (5% of *x*)

= Rs. $\left(\dfrac{5}{100} \times x \right)$

= Rs. $\left(\dfrac{x}{20}\right)$.

$\therefore$ Ratio of the total expenditure to the expenditure on R & D

$= \left(\dfrac{x}{x/20}\right)$

$= \left(\dfrac{20}{1}\right)$.

Then, the total expenditure is 20 times the expenditure of Research and Development.

If the expenditure on advertisement is 2.10 crores then the difference between the expenditure on transport and taxes is? यदि विज्ञापन पर खर्च 2.10 करोड़ है तो परिवहन और करों पर खर्च के बीच का अंतर है?

A. Rs. 1.25 crores

B. Rs. 95 lakhs

C. Rs. 65 lakhs

D. Rs. 35 lakhs

Answer: Option **D**
Explanation:
Let the total expenditure be Rs. x crores.

Then, 15% of x = 2.10 $\implies$ $x = \left(\dfrac{2.10 \times 100}{15}\right) = 14.$

$\therefore$ Total expenditure = Rs. 14 crores

and so, the difference between the expenditures on transport and taxes

= Rs. [(12.5 - 10)% of 14] crores

= Rs. [2.5% of 14] crores

= Rs. 0.35 crores

= Rs. 35 lakhs

What is the ratio of the total expenditure on infrastructure and transport to the total expenditure on taxes and interest on loans? अवसंरचना और परिवहन पर कुल व्यय का करों पर कुल व्यय और ऋणों पर ब्याज से अनुपात कितना है?

A. 5:4

B. 8:7

C. 9:7

D. 13:11

Answer: Option **D**
Explanation:
Let the total amount of expenditures be Rs. *x*.

Then, the total expenditure on infrastruture and transport

= Rs. [(20 + 12.5)% of *x*]
= Rs. [32.5% of *x*]
= Rs. $\left(\dfrac{32.5x}{100}\right)$

and total expenditure on taxes and interest on loans

= Rs. [(10 + 17.5)% of *x*]
= Rs. [27.5% of *x*]
= Rs. $\left(\dfrac{27.5x}{100}\right)$

∴ Required ratio = $\left(\dfrac{32.5x/100}{27.5x/100}\right)$ = $\dfrac{13}{11}$.

If the interest on loans amounted to Rs. 2.45 crores then the total amount of expenditure on advertisement, taxes and research and development is? यदि ऋण पर ब्याज रु. 2.45 करोड़ है तो विज्ञापन, कर एवं अनुसंधान एवं विकास पर व्यय की कुल राशि है ?

A. Rs. 7 crores

B. Rs. 5.4 crores

C. Rs. 4.2 crores

D. Rs. 3 crores

Answer: Option **C**
Explanation:
Let the total expenditure be Rs. *x* crores.
Then, 17.5% of *x* = 2.45 ⟹ *x* = 14.

∴ Total expenditure = Rs. 14 crores.

and so, the total expenditure on advertisement, taxes and Research and Development

= Rs. [(15 + 10 + 5)% of 14] crores

= Rs. [30% of 14] crores

= Rs. 4.2 crores.

The expenditure on the interest on loans is by what percent more than the expenditure on transport?

ऋण पर ब्याज पर व्यय परिवहन पर व्यय से कितने प्रतिशत अधिक है?

A. 5%

B. 10%

C. 20%

D. 40%

Answer: Option **D**
Explanation:
Let the total amount of expenditures be Rs. x.

Then, the expenditure on interest on loans = Rs. (17.5% of x) = Rs. $\left(\dfrac{17.5}{100}x\right)$

and the expenditure on transport = Rs. (12.5% of x) = Rs. $\left(\dfrac{12.5}{100}x\right)$.

$\therefore$ Difference between the two expenditures = Rs. $\left(\dfrac{17.5x}{100} - \dfrac{12.5x}{100}\right)$

$$= \text{Rs. } \left(\dfrac{5x}{100}\right)$$

and so, the required percentage = $\left(\dfrac{5x/100}{12.5x/100} \times 100\right)\% = 40\%$.