

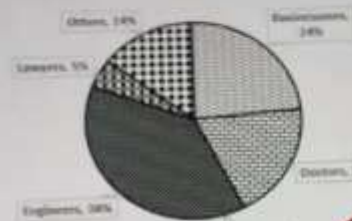
DATA Interpretation Part 2

Q 14.

The given pie chart represents the break up of working men in a colony.

Study the chart carefully and the answer the questions that follow.

Percentage distribution by Profession



Total number of working men in the colony = 6000

How many of the working men are engineers or doctors?

Ops: A. 1140

B. 3420

C. 2280

D. 2420

Reset

QUESTIONS

$$6000 \times [19\% + 38\%]$$

$$6000 \times \frac{57}{100} = 3420$$

DATA INTERPRETATION

Q 15. The table represents percentage of students in the classes, who passed in the annual exams in the year 2019-20.

Study the table carefully and the answer the questions that follow.

Class	Number of students	Percentage of students who passed
7	240	75%
8	180	60%
9	200	70%
10	160	50%
11	225	60%
12	300	80%

[Note: The students either passed or failed in the examination, and each student appeared for the exam.]

How many students of class 8 failed in the annual exam?

Ops: A. 82

B. 60

C. 108

D. 72

Passed
Failed

$$180 \times \frac{40}{100} = 72$$

Data Interpretation

Q33

The following table represents the price and P/E ratio of a company on the last day of its financial years. Study the table carefully and answer the questions that follow.

Year	Price(\$)	P/E ratio	Market Capitalisation (in million dollars)
2014	1500	15	125
2015	1400	12	120
2016	1600	18	140
2017	1250	18	130
2018	1800	10	145
2019	1650	16	150

Note: P/E ratio = $\frac{\text{Price of each share (P)}}{\text{Earnings per share (E)}}$
Market Capitalisation = Number of shares * Price of each share

Q 33. What was the earnings per share of the company in 2017?

- Ops: A. ☐ \$57.67
B. ☐ \$98.23
C. ☐ \$85.67
D. ☒ \$69.44

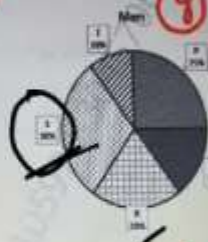
$P/E \text{ ratio} = \frac{\text{Price of Each share}}{\text{Earning per share}}$

Earning per = $\frac{\text{Price}}{(P/E) \text{ ratio}}$
 $\frac{1250}{18} = 69.44$

DATA INTERPRETATION

Q34

Q 25. The first pie chart represents the percentage breakdown of employees in all the five departments of a company, and the second pie chart represents the department-wise breakdown of the male employees in the company.



If the number of men in department P is equal to number of women in department Q, then find the ratio of number of men in department R with respect to number of women in department S?

- Ops: A. ☐ 9:13
B. ☐ 6:11
C. ☐ 12:11
D. ☐ 8:13

$\frac{4}{5} : \frac{11}{30}$
 $6 \times \frac{30 \times 4}{5} = 144$
 $6:11$

$\frac{4}{5} : \frac{11}{30}$

$6:11$

$M_p = W_q$
 $y \times \frac{25}{100} = x \times \frac{15}{100}$
 $\frac{40}{100} y = x \times \frac{15}{100}$
 $3x = 8y, x = 8y/3$

$y \times \frac{20}{100} : x \times \frac{25}{100}$
 $\frac{4}{5} : \frac{28y}{3 \times 4} = \frac{3y}{16}$
 $\frac{4}{5} : \frac{20y - 9y}{30}$

DATA INTERPRETATION

Study the graphs carefully and answer the questions that follow.

Monthly expenditure (in dollars) of four persons - Mark, John, James and Scott



Avg

$$\frac{M+J+C+J+S}{5} = 39K$$

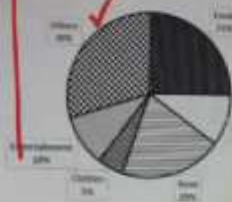
$$\frac{32K + 45K + C + 36K + 40K}{5} = 39K$$

$$153K + C = 195K$$

$$C = 195K - 153K = 42K$$

Note: The average expenditure of the five persons Mark, John, Clint, James and Scott is \$39,000.

Breakup of Clint's Expenditure



$$C = 42K$$

mobile

2024

centre

clear

$$32000 \times \frac{1}{4} = 8000$$

$$36000 \times \frac{30}{100} = 10,800$$

$$18,800$$

$$18,800 - 12,600 = 6,200$$

$$\frac{6,200}{18,800} = 0.3297$$

If Mark and James spent respectively 25% and 30% of their expenditure on others, then by what percentage was the expenditure of Clint on others less than that of combined expenditures of Mark and James on others?

- A. 0.7298
- B. 0.3777
- C. 0.4615
- D. 0.2208

DATA INTERPRETATION

Study the graphs carefully and answer the questions that follow.

Monthly expenditure (in dollars) of four persons - Mark, John, James and Scott



Clint

$$42000 \times \frac{5}{100} = 2100$$

John

$$2100 \times \frac{140}{100} = 2940$$

$$2800$$

$$140$$

$$2940$$

$$140$$

$$2940$$

$$140$$

$$2940$$

$$140$$

$$2940$$

$$140$$

$$2940$$

$$140$$

$$2940$$

$$140$$

Note: The average expenditure of the five persons Mark, John, Clint, James and Scott is \$39,000.

Breakup of Clint's Expenditure



If the expenditure on clothes of John is 40% more than that of Clint, then what percentage of the monthly expenditure of John was spent on clothes?

- A. 0.4003
- B. 0.1125
- C. 0.34125
- D. 0.1627

$$\frac{40}{100} = 0.4$$

$$\frac{0.4}{401} = 0.0009975$$

$$0.0009975$$

$$0.0009975$$

$$0.0009975$$

$$0.0009975$$

$$0.0009975$$

$$0.0009975$$

DATA INTERPRETATION

The given table represents the total number of students in different classes, the ratio of girls to boys in the class, and their average marks in a test.

Class	Ratio of girls to boys	Average marks of		
		Girls	Boys	Overall
6	5 : 6	12.5		18.2
7	6 : 7		16.5	
8	3 : 5	12	18	
9	5 : 9	20.5		
10	3 : 8	20		

Q 38. What is the average marks of boys in class 6 in the test?

- Ops: A. ☐ 20.67
B. ☐ 24.17
C. ☒ 22.95
D. ☐ 25.87

$$G = 5x, B = 6x$$

$$Avg = \frac{Sum}{NO}$$

$$18.2 = \frac{6xy + 62.5x}{(5x + 6x)}$$

$$18.2 \times 11x = 6xy + 62.5x$$

$$200.2x = 6xy + 62.5x$$

$$137.7x = 6xy$$

$$y = \frac{137.7}{6} = 22.95$$

$$Sum_B = Avg \times NO$$

$$y \times 6x$$

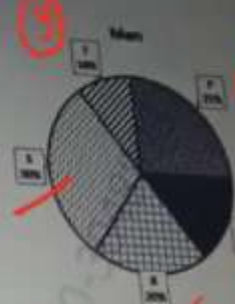
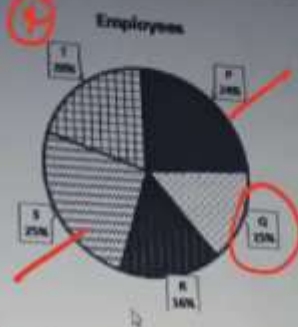
$$Sum_G = Avg \times NO = 5x \times 12.5$$

$$62.5x$$

$$\frac{182}{182} = 2009$$

DATA INTERPRETATION

The pie chart shows the percentage (break-up) of employees in all the five departments of a company, and the second pie chart represents the department-wise break-up of the total male employees in the company.



Which of the following departments has the highest percentage of men with respect to the total employees in that department?

- Ops: A. ☐ S
B. ☐ Q
C. ☐ P
D. ☒ R

$$S = \frac{30}{25} \times 100 = 120\%$$

$$Q = \frac{18}{15} \times 100 = 120\%$$

$$P = \frac{25}{24} \times 100 = 104\%$$

$$R = \frac{25}{20} \times 100 = 125\%$$

$$\frac{Male \times 100}{Total}$$

$$\frac{y \times \frac{30}{100}}{x \times \frac{25}{100}} \times 100 \rightarrow S$$

$$\frac{y \times \frac{18}{100}}{x \times \frac{15}{100}}$$

Q
P
R

DATA INTERPRETATION

Q 12 The following line graph gives the percentage increase in the price of an item over a period of 5 years and the percentage increase in the number of units of the item sold.

of an item over a period of 5 years



Note: All the values are the increase over previous years. In 2014, the price of the item was \$2000 and the number of units sold was 50,000.

Sales (in value) = (price) * (number of units sold)

What was the percentage increase in the price of an item from 2014 to 2018?

- Options:
- A. ☒ 0.38
 - B. ☐ 1.38
 - C. ☐ 1.1024
 - D. ☐ 0.1024

Reset

$$2014 \rightarrow \$2000$$

$$2015 \rightarrow 2000 \times 1.15 = 2300$$

$$2000 \times \frac{115}{100} = 2300$$

$$2300 \times \frac{120}{100} = 2760$$

$$2760 \times \frac{124}{100} = 3422.4$$

$$\frac{3422.4 - 2000}{2000} \times 100 = 71.12\%$$

0.38