

CASELET

Solution

1. Answer: (B)

$$\text{Males in company} = \frac{86}{79+86} \times 1650 = 860$$

$$\text{Female in company} = 1650 - 860 = 790$$

$$\text{Males in products development department} = 198$$

$$\text{Employees in sales and marketing}$$

$$\text{department} = \frac{18}{100} \times 1650 = 297$$

$$\text{Males in sales and marketing department}$$

$$= \frac{5}{9} \times 297 = 165$$

$$\text{Females in sales and marketing department} = 132$$

$$\text{Males in finance department} = 77$$

$$\text{Females in finance department}$$

$$= \frac{5}{7} \times 77 = 55$$

$$\text{Females in product development department} = 165$$

$$\text{Males in HR department} = 77 \times 2 = 154$$

$$\text{Males in R\&D and reinvestment department} = 860 - (198 + 165 + 77 + 154) = 266$$

$$\text{Females in R\&D and reinvestment}$$

$$\text{department} = \frac{19}{14} \times 266 = 361$$

$$\text{Females in HR department}$$

$$= 790 - (132 + 55 + 165 + 361) = 77$$

$$\text{Female shifted from sales and marketing}$$

$$\text{Department} = \frac{5}{12} \times 132 = 55$$

$$\text{Females in HR department} = 77 + 55 = 132$$

$$\text{Males in HR department} = 154$$

$$\text{Required ratio} = \frac{154}{132} = 1.17$$

Answer: (2-6) Number of boys

$$= \frac{5}{14} \times 2800 = 1000$$

$$\text{Number of girl} = \frac{9}{14} \times 2800 = 1800$$

$$\text{Number of boys who like only Singapore}$$

$$= \frac{12}{100} \times 1000 = 120$$

$$\text{Number of girls who like only Singapore}$$

$$= \frac{250}{100} \times 120 = 300$$

$$\text{Number of girls who like only Darjeeling}$$

$$= 1800 \times \frac{16}{100} = 288$$

$$\text{Number of boys who like only Darjeeling}$$

$$= 1000 \times \frac{23}{100} = 230$$

$$\text{Number of students who like only pair} = 925$$

$$\text{No. of boys who like only all three sites}$$

$$= 1000 \times \frac{1}{4} = 250$$

$$\text{No. of boys who like only pairs}$$

$$= 1000 - (120 + 230 + 250) = 400$$

$$\text{No. of girls who like only pairs} = 925 - 400 = 525$$

$$\text{No. of girl who like only all three cities}$$

$$= 1800 - (300 + 288 + 525) = 687$$

2. Answer: (B)

3. Answer: (E)

4. Answer: (A)

5. Answer: (E)

6. Answer: (D)

$$\text{Number of boys who liked Darjeeling}$$

$$= 230 + 250 = 480$$

Answer: (7-12)

FL00R	PERSON	SUBJECTS
7	S	9000
6	N	11000
5	M	15000
4	Q	3500
3	P	5000
2	R	7500
1	O	13500

7. Answer: (D)

8. Answer: (A)

9. Answer: (C)

10. Answer: (C)

11. Answer: (E)

12. Answer: (C)

Answer: (13-17) Let number of girls in hostel B

$$= 100x$$

$$\text{Then number of boys in hostel B} = 200x$$

$$\text{Number of girls in hostel A} = 130x$$

$$\text{Number of boys in hostel C} = 120 + 100$$

$$= 220$$

Number of girls in hostel C = $1000 - 220$

$$= 780$$

Total number of girls in hostel A and that of in hostel D = 446

Number of girls in hostel D = $(446 - 130x)$

Number of boys in hostel D = 302

ATQ,

$$200x - 302 = 98$$

$$x = 2$$

Hostels	Boys	Girls
A	120	260
B	400	200
C	220	780
D	302	186

13. **Answer: (B)**

$$\text{Required percentage} = \frac{(302-186)}{(400-200)} \times 100$$

$$= 58\%$$

14. **Answer: (A)**

Required difference

$$= (302 + 186) - (120 + 260) = 108$$

15. **Answer: (A)**

$$\text{Required ratio} = \frac{600}{1000} = \frac{3}{5}$$

16. **Answer: (D)**

Required average

$$= \frac{100+380+200+282}{4} = 240.5$$

17. **Answer: Answer: (B)**

Total number of boys in hostel A and that of girls in hostel C = 900

$$\text{Required \%} = \frac{900-400}{400} \times 100 = 125\%$$

18. **Answer: (B)**

	A	B	C
Veg	72	60	63
Non-veg	56	80	45

$$\text{Required total amount} = 60 \times 200 +$$

$$80 \times 300 = 12000 + 24000$$

$$= 36000$$

19. **Answer: (A)**

$$\text{Required ratio} = \frac{72+36}{80+45}$$

$$= \frac{135}{125} = \frac{27}{15}$$

20. **Answer: (E)**

$$\text{Required ratio} = \frac{72+60+63}{3}$$

$$= 65$$