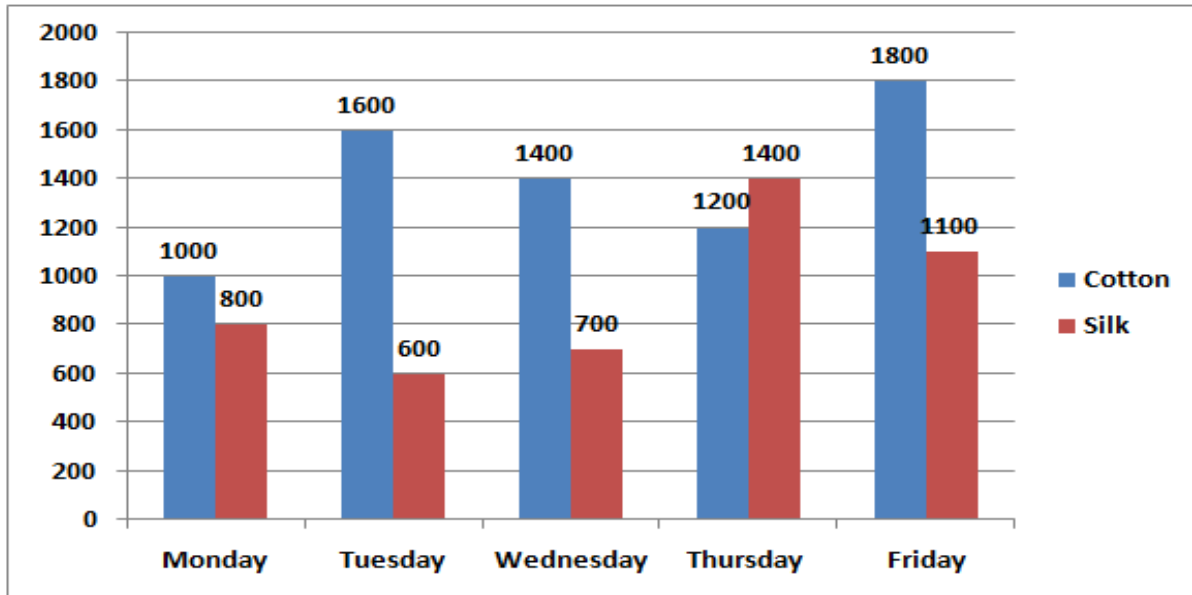


Directions (01-05): Study the following information carefully and answer the questions given below.

The given bar graph shows the number of cotton and silk sarees sold in five different days.



1) The number of Silk and cotton Sarees together sold in Thursday is what percent of number of silk and cotton sarees sold in Friday?

- A. 87.89%
- B. 89.65%
- C. 91.71%
- D. 93.45%
- E. 99.99%

2) What is the average number of cotton sarees sold in all the days together?

- A. 1200
- B. 1300
- C. 1400
- D. 1500
- E. 1100

3) If the profit on each silk saree is Rs.300, then what is the total profit of silk sarees in all the days together?

- A. 1380000
- B. 1280000
- C. 1180000
- D. 1480000
- E. 1580000

4) If the number of cotton sarees sold in Saturday is 40% more than the number of cotton sarees sold in previous day and the number of silk sarees sold in Saturday is 20% more than the number of silk sarees sold in Monday, then what is the difference between the number of sarees (silk and cotton both) sold in Wednesday and Saturday?

- A. 1280



- B.1320
- C.1360
- D.1380
- E.1290

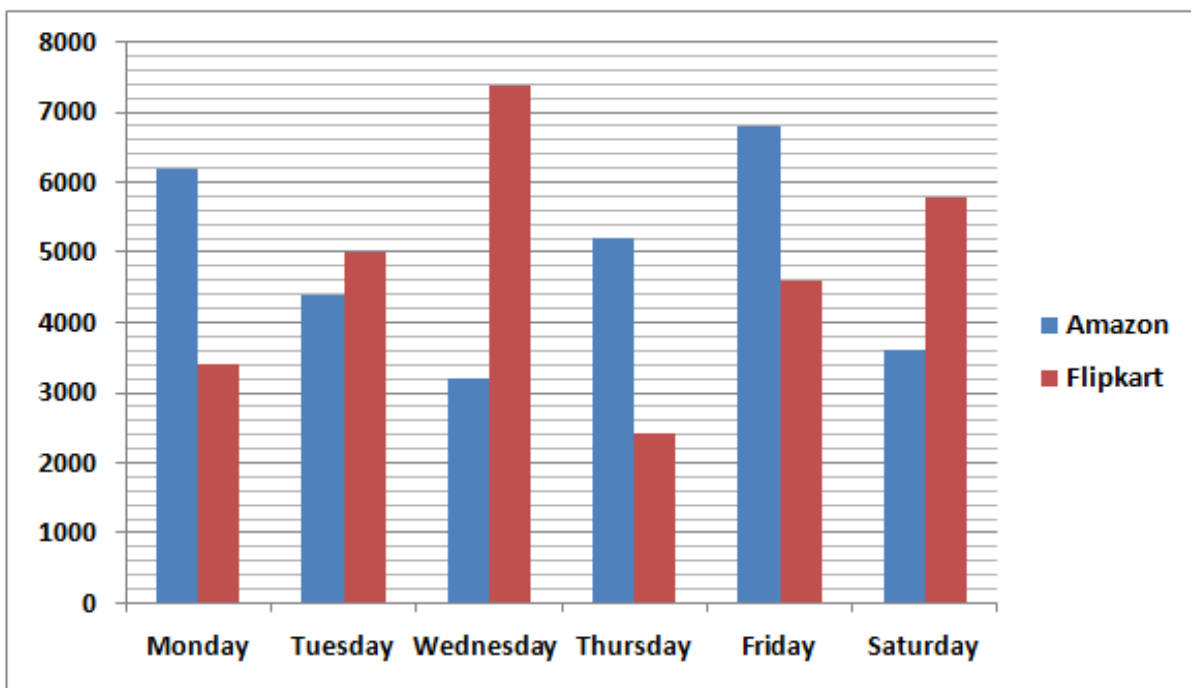
5) If the ratio of the number of sarees sold in Sunday to Tuesday is 13:11 and the ratio of the number of silk to cotton sarees sold in Sunday is

7:6, then find the number of silk sarees sold in Sunday?

- A.1000
- B.1200
- C.1400
- D.1500
- E.1300

Directions (06-10): Study the following information carefully and answer the questions given below.

The given bar graph shows the number of wall paper stickers sold in two different platforms in six different days.



6) What is the average number of wall paper stickers sold in Amazon on Tuesday, Thursday and Saturday together?

- A.4200
- B.4300
- C.4400
- D.4500
- E.4800

7) Number of wall paper stickers sold in Flipkart and Amazon together on Monday is what percent of the number of wall paper stickers sold in Flipkart and Amazon together on Wednesday?

- A.90.5%
- B.92.5%
- C.88.5%

- D.94.5%
- E.86.5%

8) What is the ratio of the number of wall paper stickers sold in Amazon on Tuesday and Saturday together to the number of wall paper stickers sold in Flipkart on Monday and Friday together?

- A.2:1
- B.3:2
- C.1:2
- D.1:1
- E.2:3

9) What is the difference between the number of wall paper stickers sold in Flipkart on Tuesday and Friday together and the number of wall paper stickers sold in Flipkart on Wednesday and Saturday together?

- A.3200
- B.3600
- C.4000
- D.4400
- E.2800

10) If the respective ratio of kitchen to bathroom wall paper stickers in Amazon on Thursday and Friday is 7:6 and 9:8, then in how many bathroom stickers sold in Amazon on Thursday and Friday together?

- A.5200
- B.5400
- C.5000
- D.4800
- E.5600

Directions (11-15): Study the following information carefully and answer the questions given below.

The below table shows the total number of cups sold (plastic and glass) and the number of glass cups sold by the 5 different sellers.

Sellers	Total cups sold	Number of glass cups sold
A	920	714
B	840	480
C	950	620
D	720	490
E	520	215

11) 10% of the glass cups and 20% of the plastic cups sold by seller C are defective pieces. Find the number of non-defective cups sold by seller C.

- A.722
- B.780
- C.822
- D.890
- E.None of these

12) Number of red colour plastic cups sold by seller D is 80 percent less than the number of glass cups sold by seller B. Find the number of red colour plastic cups sold by seller D.

- A.78
- B.90
- C.96
- D.67
- E.None of these



13) If the ratio of black cups to white cups sold by seller E is 5: 8, then find the difference between the number of black cups and white cups sold by seller E. (Assume only black and white cups are sold by seller E)

- A. 100
- B. 120
- C. 130
- D. 150
- E. None of these

14) The number of plastic cups sold by seller A is approximately what percent of the total number of cups sold by seller C?

- A. 11%
- B. 22%
- C. 33%
- D. 44%
- E. 55%

15) Find the ratio of the number of glass cups sold by sellers A, C and E together to the number of plastic cups sold by B and D together.

- A. 1549: 590
- B. 133: 141
- C. 110: 191
- D. 252: 141
- E. None of these

Directions (16-20): Study the following information carefully and answer the questions given below.

The following table shows the total number of employees working in 6 different offices in five different years.

	A	B	C	D	E	F
2016	250	360	400	520	200	250
2017	320	380	380	420	290	250
2018	380	300	320	480	300	320
2019	420	300	400	500	380	390
2020	400	490	510	540	350	370

16) Total number of employees working in office A in all the given years together is approximately what percentage less than the total number of employees working of office C in all the given years together?

- A. 5%
- B. 12%
- C. 20%
- D. 30%
- E. 35%

17) Find the ratio between the total number of working employees of office B to that of office D in all the given years together.

- A. 4: 5
- B. 5: 4
- C. 61:82
- D. 72: 75
- E. None of these

18) Find the average number of employees working in the year of 2016 for all the given offices together.

- A.110
- B.220
- C.330
- D.450
- E. None of these

19) Find the difference between the total number of employees working in all the offices in the year 2016 to that of the year 2020?

- A.340
- B.450
- C.560
- D.680
- E. None of these

20) Total number of employees working in office F in all the given years together is approximately what percentage more than the total number of employees working in office E in all the given years together?

- A.4%
- B.12%
- C.20%
- D.28%
- E. None of these

Directions (21-25): Study the following information carefully and answer the questions given below.

The given table shows the number of cars sold by five companies during five years.

Years	A	B	C	D	E
2015	150	180	250	200	220
2016	160	190	180	170	200
2017	200	220	320	300	160
2018	100	110	250	130	320
2019	190	250	150	350	100

21) What is the average number of cars sold by C in all the years together?

- A.240
- B.230
- C.250
- D.260
- E.280

22) The total number of cars sold by all the companies together in 2014 is 80% of the total number of cars sold by all the companies together in 2018. Find the total number of cars sold by all the companies together in 2014?

- A.728
- B.736
- C.748
- D.764
- E.756

23) By what percent the number of cars sold by B increases from 2015 to 2019?

- A.66.67%
- B.48.89%
- C.56.67%

D.38.89%

E.63.34%

24) The number of cars sold by D in 2019 is what percent of the number of cars sold by A in 2015?

A.233.33%

B.244.44%

C.222.22%

D.255.55%

E.None of these

25) What is the difference between the number of cars sold by E and D in all the years together?

A.100

B.150

C.200

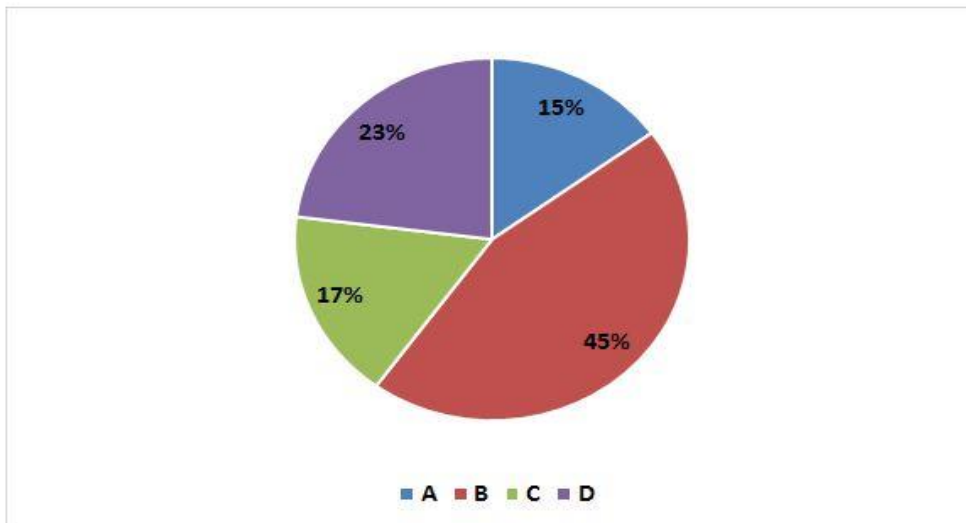
D.180

E.220

Directions (26-30): Study the following information carefully and answer the questions given below:

The Pie chart represents the percentage wise population distribution of the number of people in different towns.

Total population of the four towns = 150000



The following table represents the ratio of male to female in different towns and percentage of educated male in different towns



	Ratio of male to female in different towns	Percentage of educated male in different towns
A	3: 2	80%
B	5: 4	60%
C	9: 8	54%
D	12: 11	90%

26) What is the no. of uneducated females in town A, if the ratio of educated male to educated female in town A is 5:4?

- A.440
- B.360
- C.500
- D.760
- E.None of these

27) What is the ratio of male of town A to female of town D?

- A.9/11
- B.23/12
- C.11/15
- D.8/9
- E.21/11

28) If 20% of male population of town B moved to town C and 30% of female population of town C moved to town B, then what will be the new ratio of male to female in town B?

- A.22:25
- B.21:17
- C.12:25
- D.25:28
- E.24:25

29) If the ratio of the educated male of town B and the uneducated female of town C is 5:2. What is the percentage of educated female in town C out of the total no. of female in town C?

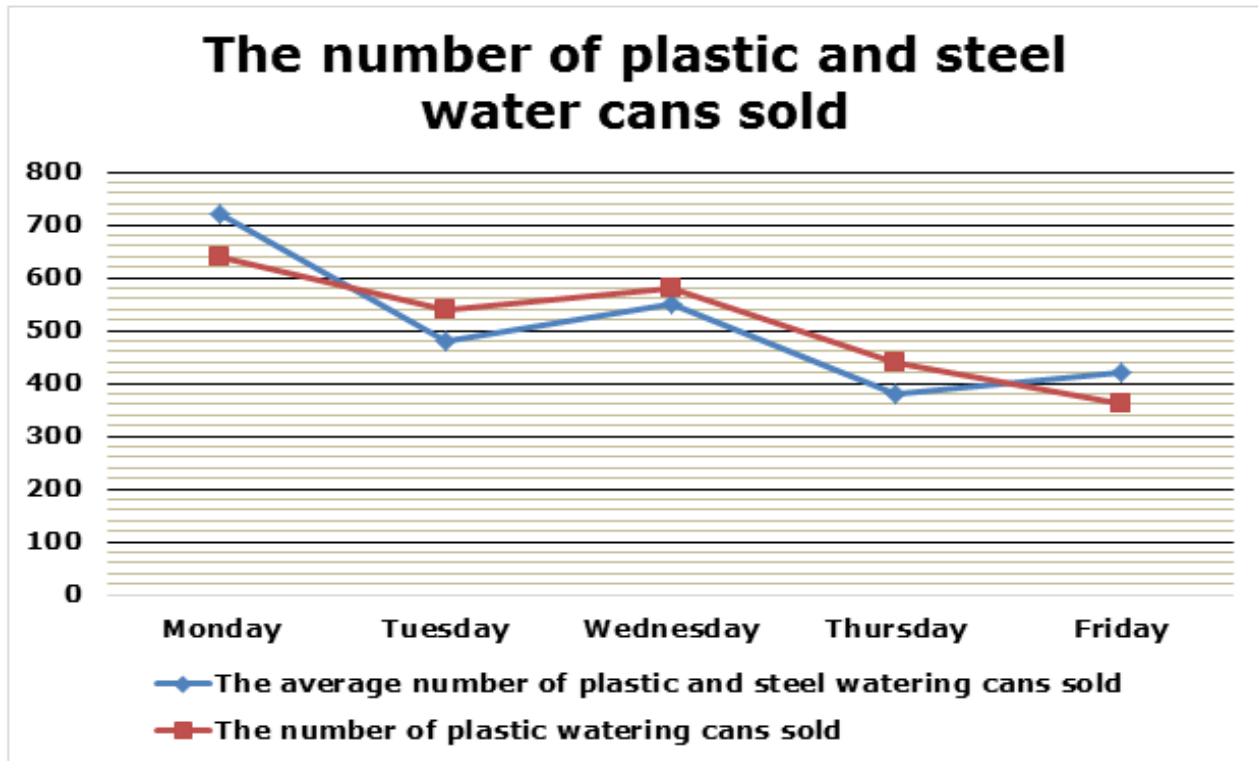
- A.29%
- B.17%
- C.28%
- D.25%
- E.None of these

30) By what Percentage the number of female in town A is more or less than the no. of male in town D?

- A.50%
- B.70%
- C.65%
- D.72%
- E.45%

Directions (31-35): Read the following information carefully and answer the questions.

The given line graph shows the average number of two different water cans i.e. plastic and steel sold on five different days (Monday, Tuesday, Wednesday, Thursday and Friday) and also given the number of plastic water cans sold on five different days.



31) If the average number of garbage and water cans sold on Tuesday is 1080 and the ratio of the number of plastic and steel garbage cans sold on Tuesday is 7:5. Then find the number of steel garbage cans sold on Tuesday?

- A. 540
- B. 520
- C. 500
- D. 560
- E. None of these

32) The number of plastic water cans sold on Wednesday and Thursday together is how much more/less than the number of steel water cans sold on Wednesday and Thursday together?

- A. 180 more
- B. 120 more
- C. 160 more
- D. 140 more
- E. None of these



33) Out of the total number of steel water cans sold on Tuesday and Friday, 33.33% of the water cans are sold for males and then find the number of steel water cans sold for females on Tuesday and Friday together?

- A.450
- B.600
- C.150
- D.300
- E.None of these

34) The number of plastic and steel water cans sold on Thursday is how much percent more/less than the number of steel water cans sold on Monday?

- A.18% less
- B.10% less
- C.12% less
- D.5% less
- E.None of these

35) If the ratio of the number of steel water cans sold on Saturday and Wednesday is 9:8 and 25% of the steel water cans are unsold on Saturday and then find the number of steel water cans unsold on Saturday?

- A.175
- B.155
- C.195
- D.185
- E.None of these

Directions (36-40): Study the following information carefully and answer the questions given below.

In a company, there is a total of 3600 employees and each employee likes at least one language among Tamil, English and Kanada. 7% of the employees like only Tamil and 9% of the employees like all three languages. $\frac{18}{25}$ of the total employees like Kanada. 56% of the employees like Tamil. $\frac{3}{25}$ of total students like both Tamil and English but not Kanada and 18% of the employees like both English and Kanada but not Tamil.

36) How many employees like only one language?

- A.1188
- B.1194
- C.1200
- D.1182
- E.None of these

37) If the ratio of the number of male to female employees who like English is 5:7, then how many female employees like English?

- A.1010
- B.1012
- C.1008
- D.1006
- E.1004

38) What is the difference between the number of employees who like only English and the number of employees who like all three languages?

- A.50
- B.60
- C.55
- D.65
- E.None of these

39) The number of students who like only English is what percent of the number of students who do not like Tamil?

- A.20.45%
- B.22.55%
- C.24.60%
- D.26.65%
- E.28.75%

40) What percent of the employees like at least two languages?

- A.63%
- B.67%
- C.69%
- D.71%
- E.61%

Directions (41-45): Study the following information carefully and answer the questions given below.

There are 400 students in the school some of them like three different subjects Biology, Chemistry and Physics. The number of students

like only Physics in the school is 85. Out of 18.75% of the students likes only Chemistry. Out of 5% of the students likes all the three subjects. Number of students who like both Biology and Physics but not chemistry is equal to the number of students who likes all the subjects together. The number of students like only Biology in the school is 105. The number of students like both Chemistry and Physics but not biology is 50% more than the number of students like both Biology and Physics but not chemistry. Out of 6.25% of the students likes both Chemistry and Biology but not physics.

41) What is the difference between the number of students like at least two subjects and the number of students like at most one subject?

- A.200
- B.220
- C.210
- D.230
- E.250

42) Find the number of students does not like any subject?

- A.60
- B.40
- C.50
- D.70
- E.None of these



43) The number of students like both Physics and Chemistry but not biology is approximately what percent of the total number of students like only Biology?

- A.26.57%
- B.27.57%
- C.24.57%
- D.28.57%
- E.30.57%

44) What is the difference between the number of students like both Biology and Chemistry but not physics and the number of students like only Physics?

- A.50
- B.60
- C.40
- D.70
- E.None of these

45) What is the ratio of the number of students like Biology to number of students like Chemistry?

- A.17:15
- B.14:9
- C.12:7
- D.15:11
- E.None of these

Directions (46-50): Study the following information carefully and answer the questions given below.

A company has four departments HR, IT, Sales and Finance. The number of male employees in HR department is double the number of female employees in IT department. The number of female employees in Finance department is 50% of the number of female employees in HR department. Total number of employees in Finance department is 360. The number of male employees in Sales department is 60 more than the number of female employees in Finance. The number of male employees in IT department is equal to the total number of employees in finance department. Total number of employees in HR is 80 more than the total number of employees in IT. The number of female employees in Sales is 50% of the number of male employees in IT department. The number of male to female employees in Sales department is 11:9.

46) What is the total number of employees in the company?

- A.1800
- B.1600
- C.2000
- D.1400
- E.None of these

47) The number of female employees in IT is what percent of the total number of employees in Sales?

- A.20%
- B.25%
- C.30%
- D.35%

E. None of these

48) What is the difference between the total number of male employees and female employees in all the departments together?

- A. 210
- B. 220
- C. 230
- D. 240
- E. None of these

49) The number of male employees in Finance department is approximately what percent of the total number of employees in HR?

- A. 36%
- B. 39%

C. 42%

D. 45%

E. 48%

50) Ratio of the number of undergraduate to postgraduate employees in Sales department is 3:2. Out of 45% of male employees in sales departments is postgraduate. Find the number of female postgraduate employees in Sales department.

- A. 59
- B. 61
- C. 63
- D. 65
- E. 67

Answer With Explanation

1) Answer: B

$$\begin{aligned} \text{Required percentage} &= (1200 + 1400)/(1800 + 1100) * 100 \\ &= (2600/2900) * 100 \\ &= 89.65\% \end{aligned}$$

2) Answer: C

$$\begin{aligned} \text{Required average} &= (1000 + 1600 + 1400 + 1200 + 1800)/5 \\ &= 7000/5 \\ &= 1400 \end{aligned}$$

3) Answer: A

$$\begin{aligned} \text{Required profit} &= (800 + 600 + 700 + 1400 + 1100) * 300 \end{aligned}$$

$$\begin{aligned} &= 4600 * 300 \\ &= 1380000 \end{aligned}$$

4) Answer: D

$$\begin{aligned} \text{Cotton sarees sold in Saturday} &= 140/100 * 1800 \\ &= 2520 \end{aligned}$$

$$\begin{aligned} \text{Silk sarees sold in Saturday} &= 120/100 * 800 = \\ &= 960 \end{aligned}$$

$$\begin{aligned} \text{Required difference} &= (2520 + 960) - (1400 + 700) = 3480 - 2100 = 1380 \end{aligned}$$

5) Answer: C

$$\begin{aligned} \text{Number of silk sarees sold in Sunday} &= 13/11 * \\ &= 7/13 * (1600 + 600) \\ &= 1400 \end{aligned}$$

**6) Answer: C**

$$\begin{aligned}\text{Required average} &= (4400 + 5200 + 3600)/3 \\ &= 13200/3 \\ &= 4400\end{aligned}$$

7) Answer: A

$$\begin{aligned}\text{Required percentage} &= (6200 + 3400)/(3200 + 7400) * 100 \\ &= (9600/10600) * 100 \\ &= 90.5\%\end{aligned}$$

8) Answer: D

$$\begin{aligned}\text{Required ratio} &= (4400 + 3600):(3400 + 4600) \\ &= 8000:8000 \\ &= 1:1\end{aligned}$$

9) Answer: B

$$\begin{aligned}\text{Required difference} &= (7400 + 5800) - (5000 + 4600) \\ &= 13200 - 9600 = 3600\end{aligned}$$

10) Answer: E

$$\begin{aligned}\text{Number of bathroom wall paper sold on Thursday and Friday} &= 6/13 * 5200 + 8/17 * 6800 \\ &= 2400 + 3200 \\ &= 5600\end{aligned}$$

11) Answer: C

$$\begin{aligned}\text{Number of non-defective glass cups sold by seller C} &= 90/100 * 620 = 558 \\ \text{Number of non-defective plastic cups sold by seller C} &= 80/100 * (950 - 620) = 264\end{aligned}$$

$$\begin{aligned}\text{Number of non-defective cups sold by seller C} &= 558 + 264 = 822\end{aligned}$$

12) Answer: C

$$\begin{aligned}\text{Number of glass cups sold by seller B} &= 480 \\ \text{Red colour plastic cups sold by seller D} &= (100 - 80)/100 * 480 = 96\end{aligned}$$

13) Answer: B

$$\begin{aligned}\text{Total cups sold by E} &= 520 \\ \text{Number of black cups sold by E} &= 5/13 * 520 = 200 \\ \text{Number of white cups sold by seller E} &= 8/13 * 520 = 320 \\ \text{Required difference} &= 320 - 200 = 120\end{aligned}$$

14) Answer: B

$$\begin{aligned}\text{Number of plastic cups sold by seller A} &= 920 - 714 = 206 \\ \text{Total number of cups sold by seller C} &= 950 \\ \text{Required \%} &= 206/950 * 100 = 22\%\end{aligned}$$

15) Answer: A

$$\begin{aligned}\text{Number of glass cups sold by sellers A, C and E together} &= 714 + 620 + 215 = 1549 \\ \text{Number of plastic cups sold by B and D together} &= (840 - 480) + (720 - 490) = 590 = 360 + 230 \\ \text{Required ratio} &= 1549: 590\end{aligned}$$

16) Answer: B

$$\begin{aligned}\text{Total employees in office A} &= 250 + 320 + 380 + 420 + 400 = 1770\end{aligned}$$



Total employees in office C = $400 + 380 + 320 + 400 + 510 = 2010$

Required % = $(2010 - 1770)/2010 * 100 = 11.9\% \approx 12\%$

17) Answer: C

Total employees in office B = $360 + 380 + 300 + 300 + 490 = 1830$

Total employees in office D = $520 + 420 + 480 + 500 + 540 = 2460$

Required ratio = $1830:2460 = 61:82$

18) Answer: C

Required average = $(250 + 360 + 400 + 520 + 200 + 250)/6 = 330$

19) Answer: D

Total employees in 2016 = $250 + 360 + 400 + 520 + 200 + 250 = 1980$

Total employees in 2020 = $400 + 490 + 510 + 540 + 350 + 370 = 2660$

Required difference = $2660 - 1980 = 680$

20) Answer: A

Total number of employees in office E = $200 + 290 + 300 + 380 + 350 = 1520$

Total number of employees in office F = $250 + 250 + 320 + 390 + 370 = 1580$

Required % = $(1580 - 1520)/1520 * 100 = 4\%$
more

21) Answer: B

Required average = $(250 + 180 + 320 + 250 + 150)/5 = 230$

22) Answer: A

Number of cars sold in 2014 = $80/100 * (100 + 110 + 250 + 130 + 320) = 728$

23) Answer: D

Required percentage = $(250 - 180)/180 * 100 = 38.89\%$

24) Answer: A

Required percentage = $350/150 * 100 = 233.33\%$

25) Answer: B

Number of cars sold by E = $220 + 200 + 160 + 320 + 100 = 1000$

Number of cars sold by D = $200 + 170 + 300 + 130 + 350 = 1150$

Difference = $1150 - 1000 = 150$

26) Answer: B

Educated male in town A = $15/100 * 150000 * 3/5 * 80/100 = 10800$

Ratio given 5:4,

5 = 10800

1 = 2160

4 = 8640

No. of educated female in town A = 8640



Total no. of female in town A = $15/100 \times 150000$
 $\times 2/5 = 9000$

No. of uneducated females in town A = $9000 - 8640 = 360$

27) Answer: A

Ratio of male of town A/ Ratio of female of town D

= $(15/100 \times 150000 \times 3/5) \div (23/100 \times 150000 \times 11/23) = 9:11$

28) Answer: D

Total no. of males in town B = $45/100 \times 150000$
 $\times 5/9 = 37500$

Total no. of females in town B = $45/100 \times 150000 \times 4/9 = 30000$

Total no. of females in town C = $17/100 \times 150000 \times 8/17 = 12000$

Male population left after migration in town B = $4/5 \times 37500 = 30000$

Female population after migration from town C to town B = $3600 + 30000 = 33600$

New ratio of male to female in town B = $30000/33600 = 25:28$

29) Answer: D

Educated male in town B = $(150000 \times 45/100) \times (5/9) \times 60/100 = 22500$

From the ratio 5:2

5 = 22500

1 = 4500

2 = 9000

So, no. of uneducated females in town C = 9000

Total no. of female in town C = $150000 \times 17/100 \times 8/17 = 12000$

No. of educated female in town C = $12000 - 9000 = 3000$

Percentage of educated female out of total female in town C

= $3000/12000 \times 100 = 25\%$

30) Answer: A

Female in the town A = $15/100 \times 150000 \times 2/5 = 9000$

Male in town D = $23/100 \times 150000 \times 12/23 = 18000$

Percent less = $9000/18000 \times 100 = 50\%$

31) Answer: C

The number of garbage cans sold on Tuesday = $1080 \times 2 - 960 = 1200$

The number of steel garbage cans sold on Tuesday = $1200 \times 5/12 = 500$

32) Answer: A

The number of plastic water cans sold on Wednesday and Thursday = $580 + 440 = 1020$

The number of steel water cans sold on Wednesday = $550 \times 2 - 580 = 520$

The number of steel water cans sold on Thursday = $380 \times 2 - 440 = 320$

The number of steel water cans sold on Wednesday and Thursday = $520 + 320 = 840$

Required difference = $1020 - 840 = 180$ more

33) Answer: B



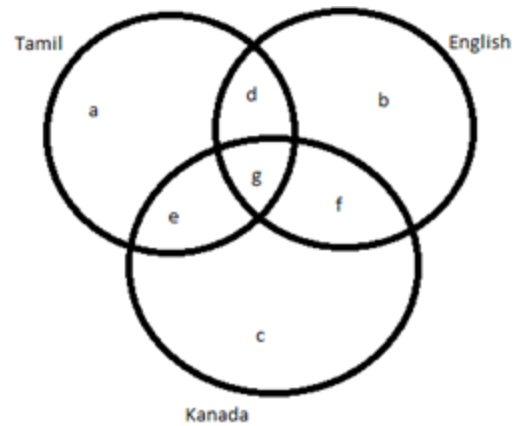
The number of steel water cans sold on Tuesday = $480 \times 2 - 540 = 420$
 The number of steel water cans sold on Friday = $420 \times 2 - 360 = 480$
 The number of steel water cans sold on Tuesday and Friday = $420 + 480 = 900$
 The number of steel water cans sold for females on Tuesday and Friday = $900 \times \frac{2}{3} = 600$

34) Answer: D

The number of plastic and steel water cans sold on Thursday = $380 \times 2 = 760$
 The number of steel water cans sold on Monday = $720 \times 2 - 640 = 800$
 Required percentage = $\frac{(760 - 800)}{800} \times 100 = -40/8 = 5\%$ less

35) Answer: C

The number of steel water cans on Wednesday = $550 \times 2 - 580 = 520$
 The number of steel water cans sold on Saturday = $520 \times \frac{9}{8} = 585$
 The number of steel water cans unsold on Saturday = $585/3 = 195$

Directions (36-40):

$$g = \frac{9}{100} \times 3600 = 324$$

$$a = \frac{7}{100} \times 3600 = 252$$

$$g + f + e + c = \frac{18}{25} \times 3600 = 2592$$

$$a + d + g + e = \frac{56}{100} \times 3600 = 2016$$

$$d = \frac{3}{25} \times 3600 = 432$$

$$f = \frac{18}{100} \times 3600 = 648$$

$$e = 2016 - 252 - 432 - 324 = 1008$$

$$c = 2592 - 1008 - 648 - 324 = 612$$

$$b = 3600 - 2016 - 612 - 648 = 324$$

36) Answer: A

$$a + b + c = 324 + 612 + 252 = 1188$$

37) Answer: C

$$\text{Number of employees like English} = 432 + 324 + 648 + 324 = 1728$$

$$\text{Number of female employees like English} = \frac{7}{12} \times 1728 = 1008$$

38) Answer: E

$$\text{Difference} = 324 - 324 = 0$$

39) Answer: A



$$\begin{aligned} \text{Required \%} &= 324 / (324 + 612 + 648) * 100 \\ &= 20.45\% \end{aligned}$$

40) Answer: B

$$\begin{aligned} \text{Required \%} &= (432 + 1008 + 648 + 324) / 3600 * 100 \\ &= 67\% \end{aligned}$$

Directions (41-45):

Number of students likes only Biology = 105

Number of students likes only Physics = 85

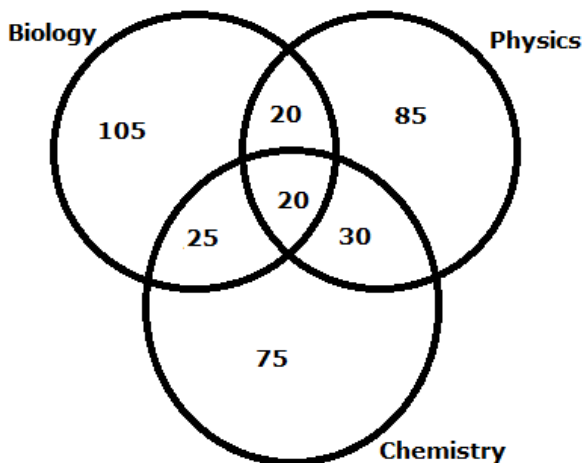
Number of students likes only Chemistry = $18.75/100 * 400 = 75$

Number of students who likes all the three subjects = $5/100 * 400 = 20$

Number of students likes both Chemistry and Biology but not physics = $6.25/100 * 400 = 25$

Number of students likes both Biology and Physics but not chemistry = 20

Number of students like both Physics and Chemistry but not biology = $150/100 * 20 = 30$

**41) Answer: C**

$$\begin{aligned} \text{Number of students like at least 2 subjects} &= 20 \\ &+ 25 + 30 + 20 = 95 \end{aligned}$$

$$\begin{aligned} \text{Number of students does not like any subject} &= 400 - (105 + 20 + 20 + 25 + 85 + 30 + 75) = 40 \end{aligned}$$

$$\begin{aligned} \text{Number of students like at most one subject} &= 105 + 85 + 75 + 40 = 305 \end{aligned}$$

$$\text{Difference} = 305 - 95 = 210$$

42) Answer: B

$$\begin{aligned} \text{Number of students does not like any subject} &= 400 - (105 + 20 + 20 + 25 + 85 + 30 + 75) = 40 \end{aligned}$$

43) Answer: D

$$\text{Required percentage} = 30/105 * 100 = 28.57\%$$

44) Answer: B

$$\text{Difference} = 85 - 25 = 60$$

45) Answer: A

$$\begin{aligned} \text{Required ratio} &= (105 + 20 + 20 + 25) : (20 + 30 + 25 + 75) \\ &= 170 : 150 \\ &= 17 : 15 \end{aligned}$$

46) Answer: A

$$\begin{aligned} \text{Number of male employees in IT department} &= 360 \end{aligned}$$

$$\begin{aligned} \text{Number of female employees in Sales department} &= 360 * 50/100 = 180 \end{aligned}$$

$$\begin{aligned} \text{Number of male employees in Sales department} &= 11/9 * 180 = 220 \end{aligned}$$

$$\begin{aligned} \text{Number of female employees in Finance department} &= 220 - 60 = 160 \end{aligned}$$

$$\begin{aligned} \text{Number of male employees in Finance department} &= 360 - 160 = 200 \end{aligned}$$

Number of female employees in HR department
= $100/50 * 160 = 320$

Number of female employees in IT department =
 x

Number of male employees in HR department =
 $2x$

$$2x + 320 - (x + 360) = 80$$

$$x = 120$$

Number of female employees in IT department =
 120

Number of male employees in HR department =
 $2 * 120 = 240$

Total number of employees in HR department =
 $240 + 320 = 560$

Number of employees in IT department = $360 +$
 $120 = 480$

Number of employees in Sales department =
 $220 + 180 = 400$

Total number of employees = $560 + 480 + 400$
 $+ 360 = 1800$

47) Answer: C

$$\text{Required percentage} = 120/400 * 100 = 30\%$$

48) Answer: D

Total male employees = $240 + 360 + 220 + 200$
= 1020

Total female employees = $320 + 120 + 180 +$
 $160 = 780$

$$\text{Difference} = 1020 - 780 = 240$$

49) Answer: A

$$\text{Required percentage} = 200/560 * 100 = 36\%$$

50) Answer: B

Number of postgraduate employees in Sales
department = $2/5 * 400 = 160$

Number of postgraduate male employees =
 $45/100 * 220 = 99$

Number of postgraduate female employees = $160 -$
 $99 = 61$