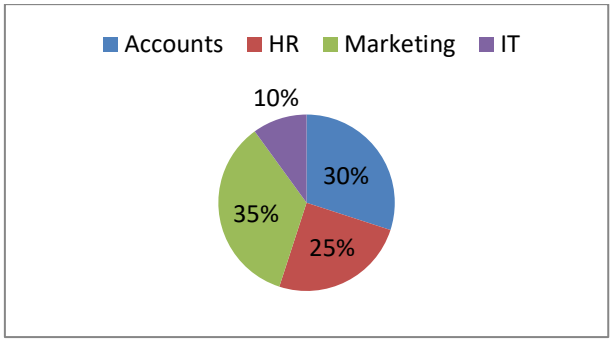
Mixed DI Questions for IBPS PO Prelims

Mixed DI

Direction (1-5) Study the charts and answer the question.

Total number of employees =3600. Percentage of employees working in different department is given in the pie chart. Percentage of female in respective departments is given in the table.

Mixed DI Questions for IBPS PO Prelims



Departments	Percentage of female
Accounts	40%
HR	60%
Marketing	30%
IT	55%

1. What is the total number of females working in HR and IT departments together?

a.678

b.789

c.670

d.768

e.738

2. How many males work in the IT department?

a.132

b.144

c.168

d.162

e.156

3. What is respective ratio of number of males working in HR department to the number females in marketing department?

a.18:13

b.11:18

c.20:21

d.17:21

e.17:18

4. What is the difference of total male in all departments of the company and the total number of female in Accounts, HR, and IT departments together?

a.789

b.882

c.567

d.890

e.568

5. Number of male in IT department is what percent of the number of female in marketing department?

a.42.85

b.85.23

c.53.32

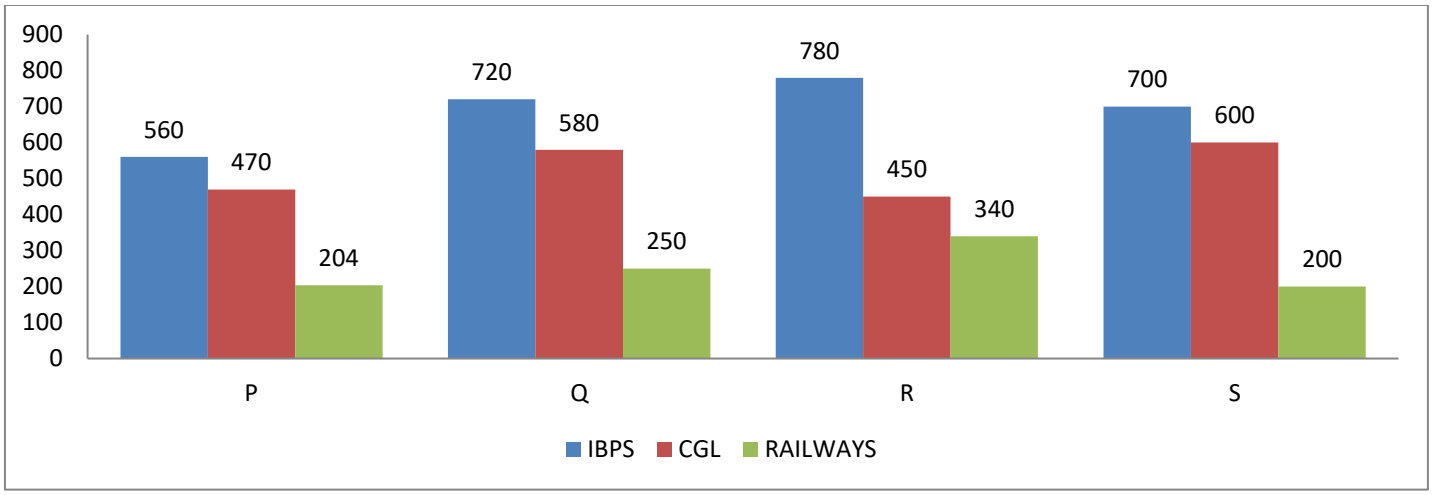
d.41.23

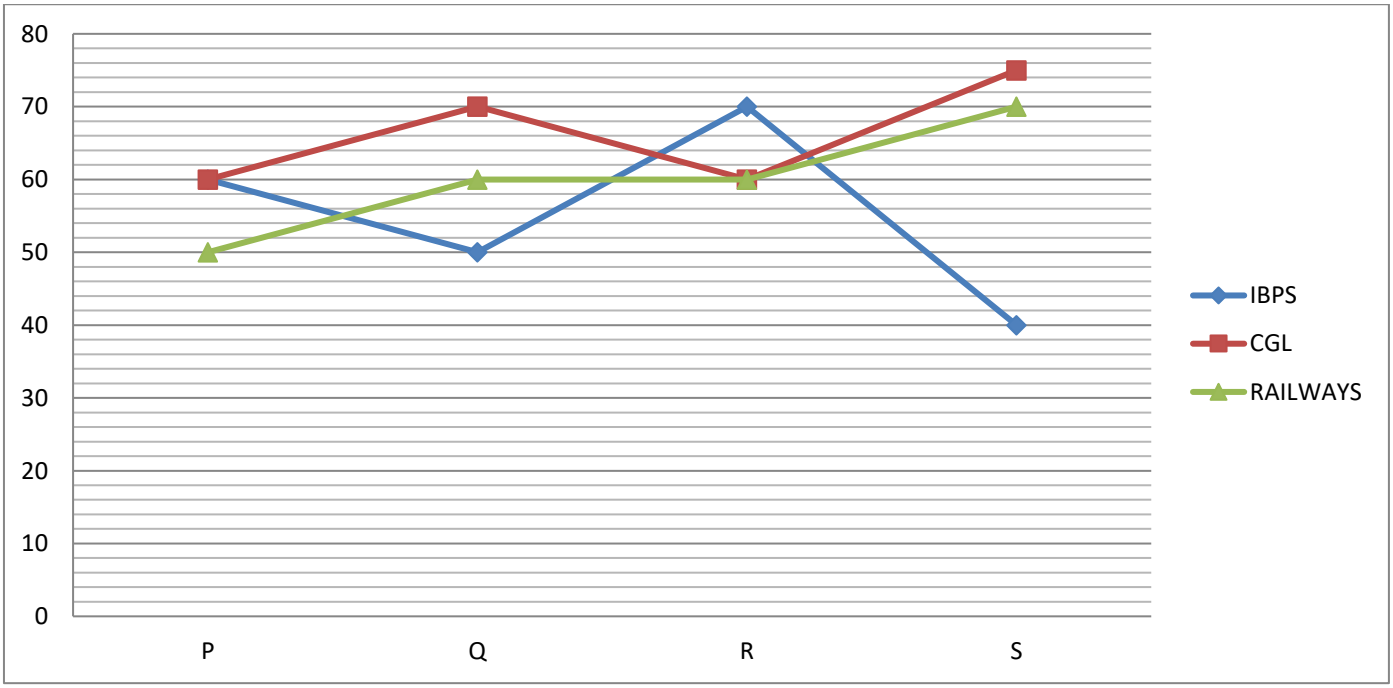
e.56.23

Mixed DI Questions for IBPS PO Prelims

Direction (6-10) Study the charts and answer the question.

Number of candidates appearing three different exams from four different cities given in bar graph and percentage of student passed the exams given in line graph.





Mixed DI Questions for IBPS PO Prelims

6. Number of candidates who passed IBPS from state P was approximately what percent of number of candidates who passed Railways from S?

a.232
b.231
c.261
d.245
e.240

7. What is the respective ratio between the number of candidates who appeared for CGL from R and the number of candidates who passed in Railways from R?

a.23:79
b.53:89
c.55:57
d.75:34
e.23:97

8. What is the total number of candidates passed from Q in all the exams?

a.234
b.768
c.916
d.456
e.780

9. What is the difference between the total number candidates passed CGL from Q and R together and the total number candidates passed Railways from P and S together?

a.456
b.434
c.678
d.567
e.345

10. What is number of candidates passed Railways exams from all the state together?

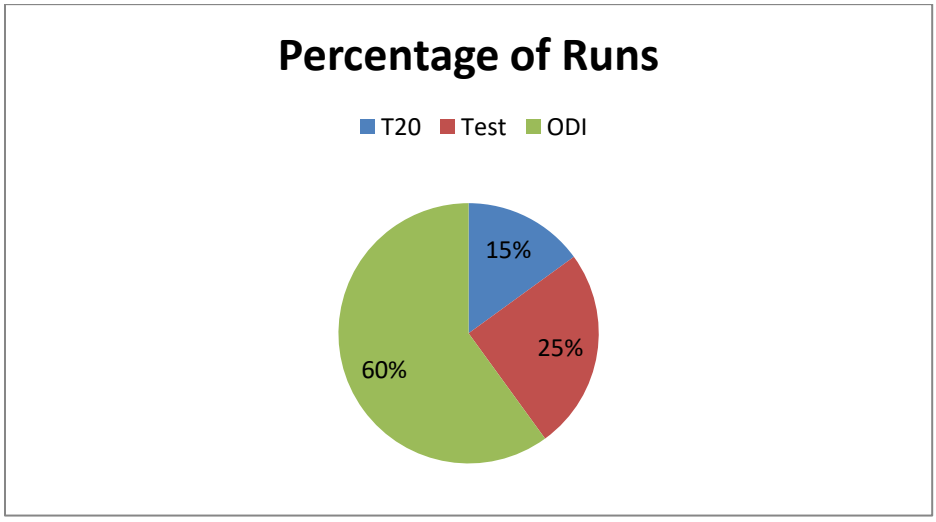
a.596
b.567
c.467
d.460
e.356

Direction (11-15) Study the graphs and answer the question.

Percentage distribution of runs score by M S Dhoni in three formats T20, Test, and ODI is given in Pie chart. Total runs (T20+Test+ODI) score by M S Dhoni is 18000.

In table ratio between runs score in India and the outside of India is given.

Mixed DI Questions for IBPS PO Prelims



	runs score in India : runs score outside of India
T20	4:5
Test	8:7
ODI	7:5

11. What is respective ratio between the runs score in India in T20 format and the runs score in outside of India in Test format?

a.3:2

b.4:5

c.1:2

d.9:2

e.4:7

12. Runs score in India in ODI format is what percent of runs score in India in T20 format?

a.345%

b.123%

c.567%

d.525%

e.569%

13. What is average runs score outside of India in all three formats?

a.2100

b.2400

c.2700

d.2000

e.2345

14. Runs scores in Test formats is what percent more than the runs score in T20 formats?

a.55%

b.66.66%

c.33.33%

d.70%

e.88.88%

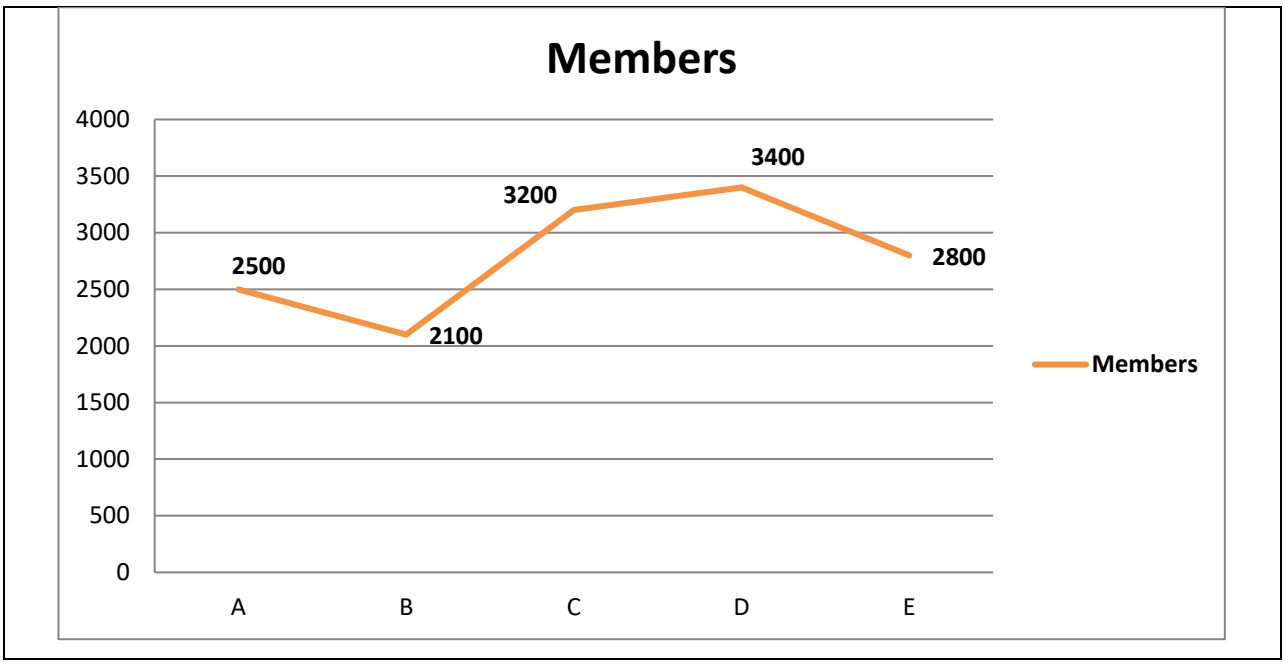
Mixed DI Questions for IBPS PO Prelims

15. What is difference between the runs score in ODI in outside of India and the runs score in test in outside of India?

a.2400
b.2350
c.1400
d.4300
e.2100

Direction (16-20) Study the graphs and answer the question.

The following line graph shows the total number of Members in five different parties. And the Table shows the percentage of the females out of the total members in each Party.



Party	Percentage of female
A	40%
B	71.42%
C	62.5%
D	60%
E	42.85%

Note: Take approximate value which is derived from the Table

16. Find the ratio of the total number of members of A and B together to the total number of female members of C and E together?

a.21:23
b.23:29
c.17:19
d.17:29

Mixed DI Questions for IBPS PO Prelims

e.23:16

17. Find the difference between the number of male members of A and the number of the female members of D?

a.132

b.234

c.256

d.140

e.123

18. Total number of male members of A and E is approximately what percent of the total number of female members of B and D?

a.66.66%. b.71.23%. c.87.57%. d.78.89%. e.71.34%

19. What is average of the number of male members of A, C, and E?

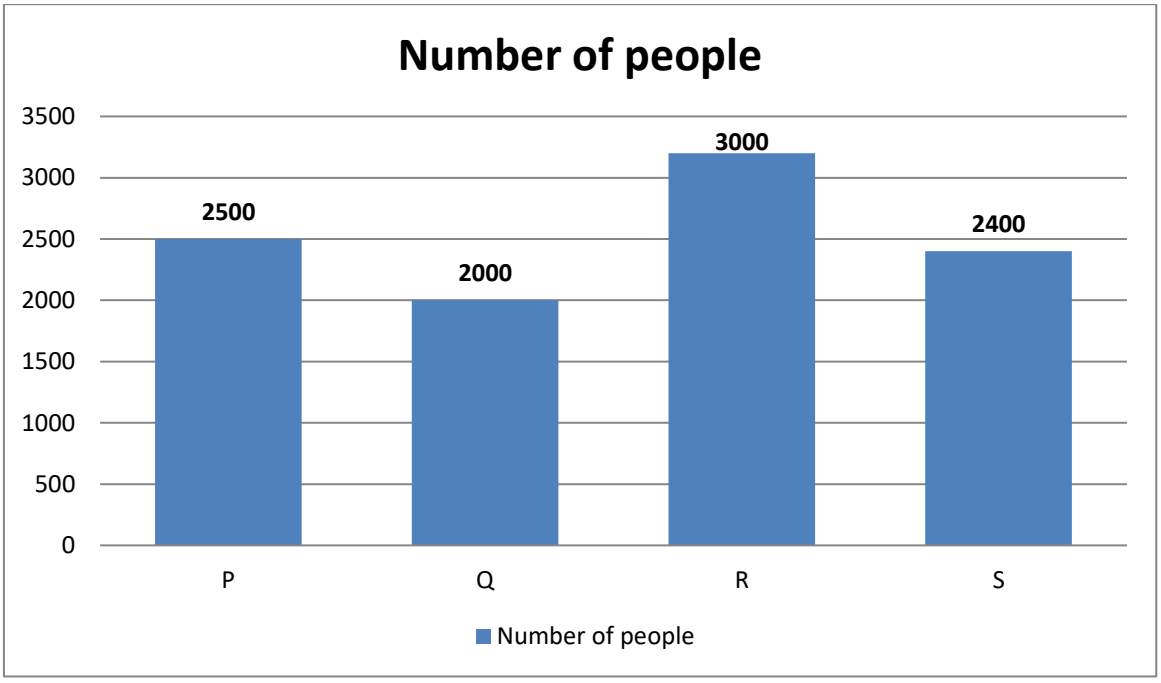
a.1234.66. b.1433.33. c.1221.11. d.1123.33. e.1890.33

20. The numbers of male members of C is what percent more or less than the male numbers of B?

a.100%. b.34.56%. c.36.87%. d.78.56%. e.60%

Direction (21-25) Study the graphs and answer the question.

Bar-graph shows the number of people in five different cities and table shows the percentage of male in five cities and the ratio of literate and illiterate people in five different cities.



City	Percentage of males	Literate : Illiterate

P	60%	2:3
Q	50%	3:1
R	40%	5:1
S	30%	2:1

21. Literate people from city P is what percent more than the illiterate people from city Q?

a.70%. b.45%. c.60%. d.50%. e.100%

22. Find the ratio of between the numbers of female from city R to the number of male from city S?

a.1:2. b.2:3. c.5:9. d.5:2. e.2:1

23. What is the average of literate people in five cities?

a.1692. b.1420. c.1650. d.1120. e.1320

24. What is the ratio of total females from city S and T to the total illiterate males from city P and city R?

a.2:3. b. Cannot be determine. c.4:5. d.7:2. e.4:9

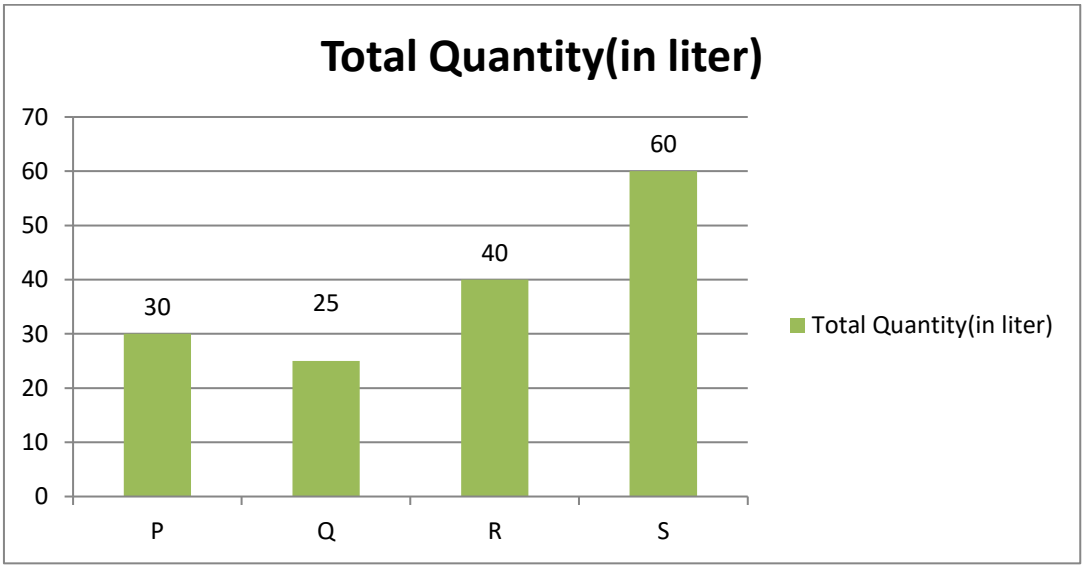
25. Find the difference between number of female from city Q and number of male from city R?

a.200. b.450. c.310. d.250. e.220

Direction Q (26-30) – Study the graphs and answer the flowing question.

Four containers has different amount (in liter) mixture (milk +water).

Bar graphs shows the total amount of mixture and table graph show the ratio of milk and water in respective container.



Mixed DI Questions for IBPS PO Prelims

Container	Ratio of milk and water
P	2:1
Q	4:1
R	5:3
S	3:2

26. In container P, how much water should be added to it so that the ratio of milk and water becomes 2:3?

a.20

b.23

c.29

d.21

e.19

27. In container Q, 5 liter water is added to the mixture. What is the new ratio of water and milk?

a.5:6

b.3:5

c.2:1

d.1:2

e.3:2

28. 60% of mixture R and 40% of mixture P is mixed together in containers T. what is the ratio of milk and water in container T?

a.7:11

b.5:4

c.23:13

d.17:11

e.13:29

29. What is the difference of amount of Milk in container S and container R?

a.9

b.11

c.19

d.18

e.13

30. 50% of mixture S taken out and 2 liter water added to the mixture. What is the new ratio of milk and water?

a.9:7

b.7:3

c.3:5

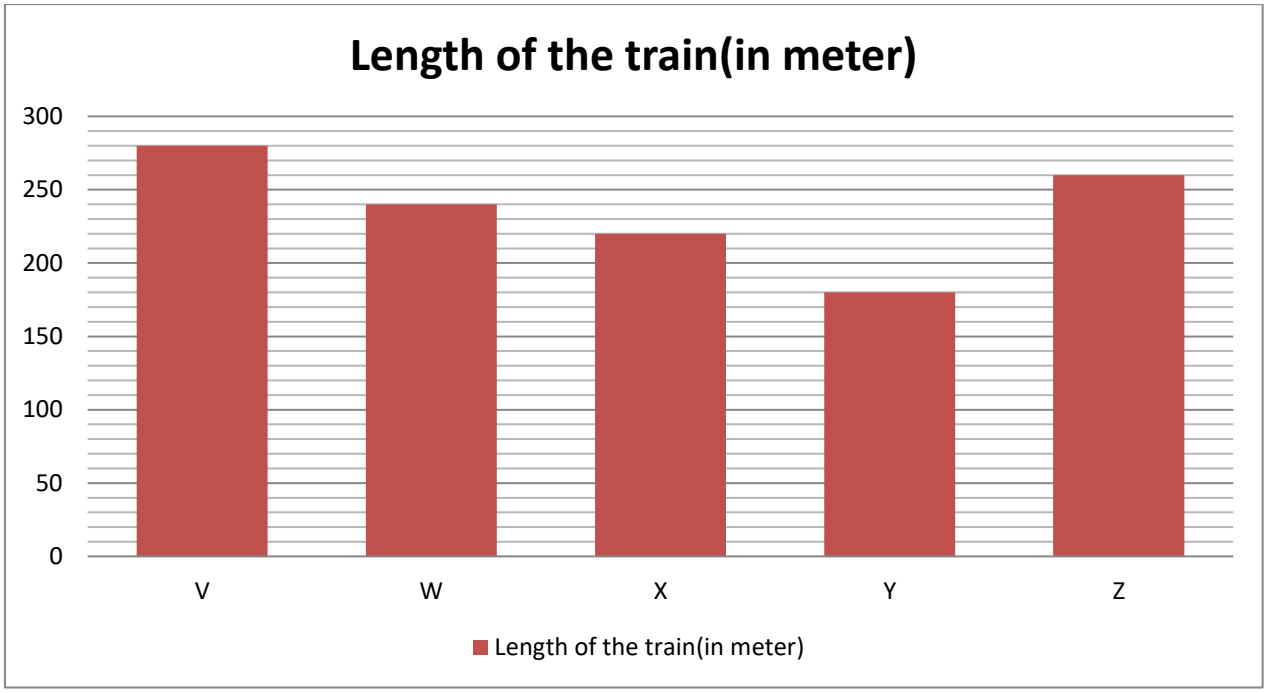
d.3:2

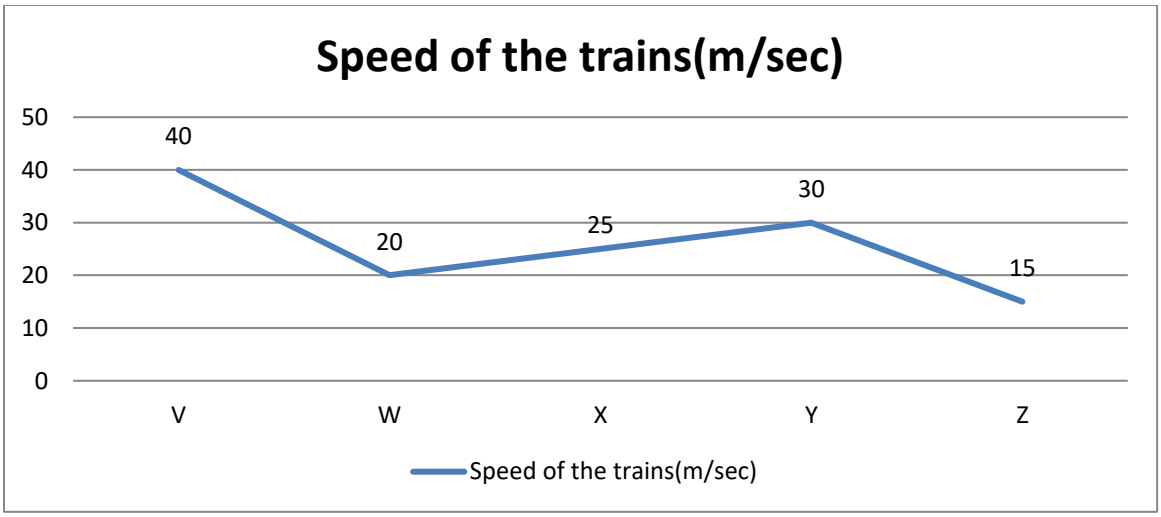
e.7:9

Direction Q (31-35) Study the charts and answer the questions.

Length (in meter) of five trains given in bar graph and line graph shows the speed (m/sec) of those trains.

Mixed DI Questions for IBPS PO Prelims





31. Train V and train W is running towards each other. In how many sec they cross each other?

a.12

b.16

c.14

d. 6 3/4

e.8 2/3

32. Train Z cross a platform in 30 sec. How much time train Y needs to cross the same platform?

a.6

b.9

c.8.44

d.12.33

e.3

33. Train X cross bridge A in 16 sec and Train W cross bridge B in 20 sec. then find the difference of length of bridge A and bridge B?

a.30

b.45

c.20

d.29

e.32

34. Train Y and Train Z running in same direction. In how many sec they pass one another?

a.32.3

b.29.33

c.19

d.25

e.21.3

35. What is average length of train V, X and Z?

a.233.3

b.256.12

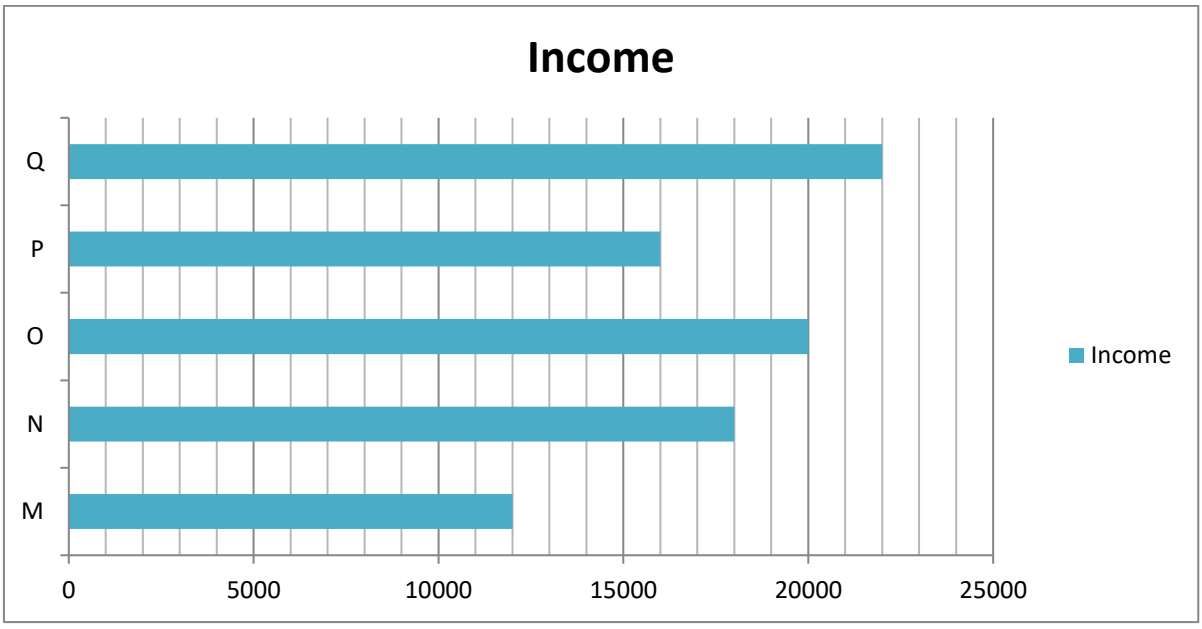
c.245

d.250

e.213.3

Direction Q (36-40) – Study the graphs and answer the flowing question.

Total monthly income of five persons is given in bar graphs and in table ratio of expenditure in food, rent, and bill is given.



Mixed DI Questions for IBPS PO Prelims

Person	Food : Rent : Bill
M	2:3:1
N	3:4:2
O	5:4:1
P	3:2:3
Q	5:4:2

36. Find the ratio between the amounts spends in rent by M and the amounts spend in rent by N?

a.1:1

b.3:2

c.2:1

d.5:4

e.3:4

37. What is the average amount spends in bill by O, P and Q together?

a.2346

b.1234

c.3400

d.4000

e.2340

38. What is the difference between the total amounts spend by N in food and bill and the total amounts spend by P in food and bill?

a.1800

b.2400

c.2000

d.2100

e.2222

39. Amount spend by P in rent is what percent of the amount spend by M in bill?

a.120%

b.200%

c.130%

d.122%

e.145%

40. Amount spend by Q in food is what percent more or less than the amount spend by P in rent?

a.150%

b.120%

c.180%

d.210%

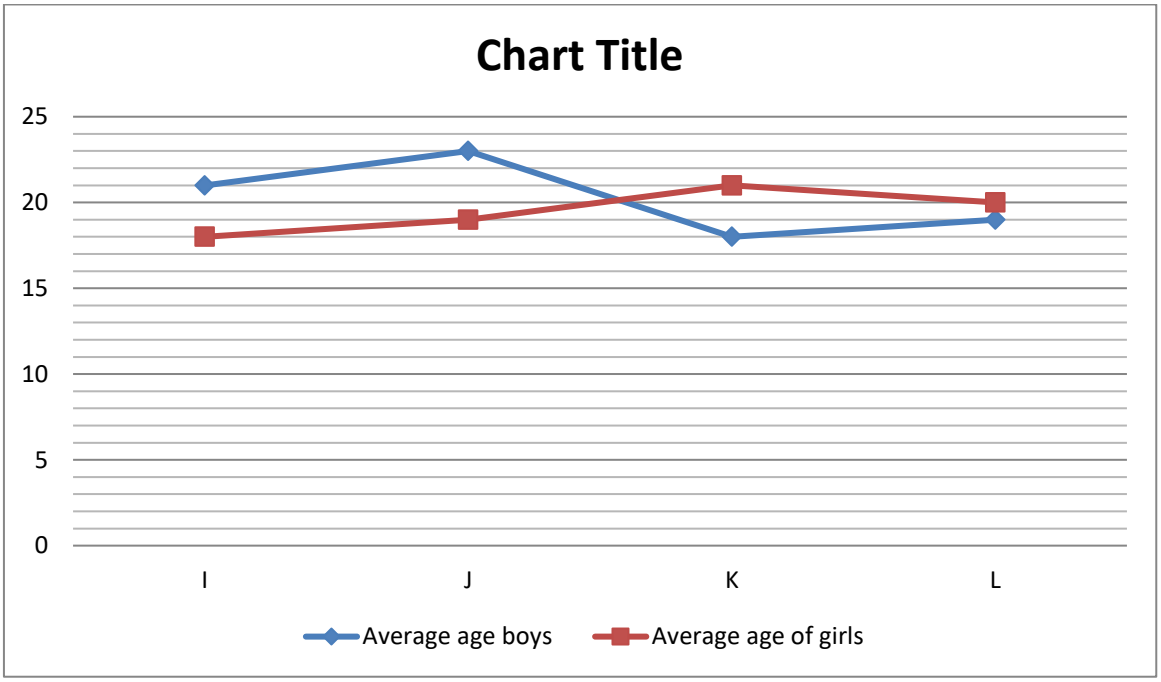
e.235%

Direction Q (41-45) Study the graphs and answer the following question.

In table total number of student in five classes and ratio of number of boys and girls is given and in line graphs average age boys and girls in respective class is given.

Mixed DI Questions for IBPS PO Prelims

Class	Total student	Boys : Girls
I	60	7:5
J	45	4:5
K	35	5:2
L	55	6:5



41. What is the average age of total students of class I?

a.14.36

b.21.32

c.12.32

d.23.3

e.19.75

42. What is the difference between total age of all the boys in class K and the total age of girls in class J?

a.35

b.29

c.12

d.25

e. 21

43. Number of boys in class L is what percent of number of boys in class I?

a.44.22%

b.74.32%

c.85.71%

d.66.66%

e.33.33%

44. What is the ratio of total age of the class J and total age of the class L?

a.290:233

b.187:214

c.212:231

d.239:213

e.235:234

45. What is the total no of girls in all the class together?

a.85

b.65

c.78

d.67

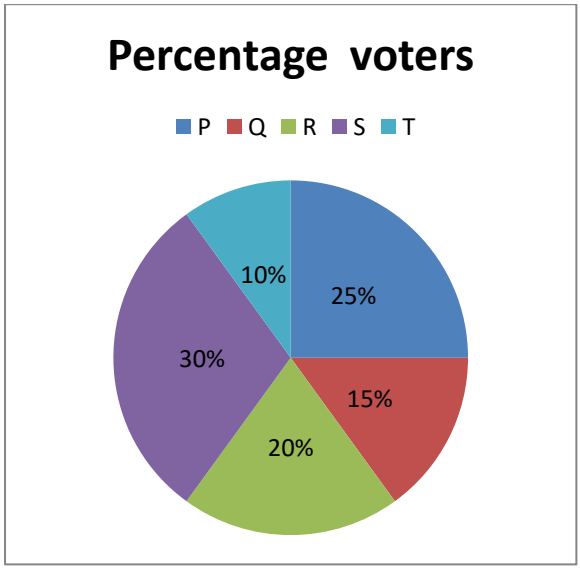
e. 56

Direction Q (46-50) - Study the pie charts and answer the flowing question.

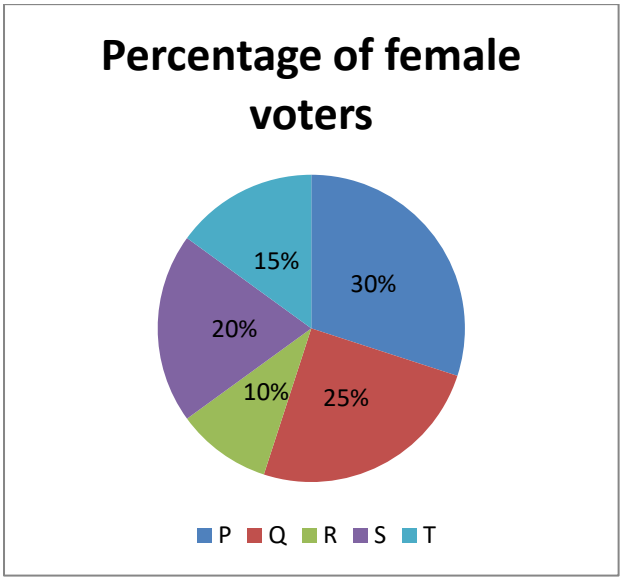
Distributions of total number of voters from five different cities and distribution of female voters from total female among these cities is given.

Total number of voters =24000

Ratio of males and females =7:5



Mixed DI Questions for IBPS PO Prelims



46. The number of male voter in city P is what percent of total number of voter in the same city?

a.32%

b.40%

c.55%

d.60%

e.50%

47. What is average number of female voters in city R, S, T?

a.2400

b.2100

c.1800

d.1500

e.1200

48. What is ratio of male voter of city R to the female voter of city T?

a.5:39

b.3:4

c.38:15

d.65:17

e.32:31

49. What is the difference of total number female voters of city Q and T?

a.2300

b.1000

c.2100

d.1600

e.1200

50. The number of male voter of Q is what percent of male voter of S?

a.21.15%

b.25%

c.33.33%

d.14.28%

e.16.67%

Mixed DI Questions for IBPS PO Prelims

Mixed DI - Answer and Detailed Explanation

Solution (1-5):-

Common Explanation-

Total number of employee in the company is 3600.

30% of total employee is on accounts department.

So, total employee in accounts department is 3600*30/100 =1080.

Out of the total employee 40% is female in accounts departments.

So female employee in accounts is 1080*40/100=432

Now male employee in accounts department is 1080-432 =648.

Like this way we can calculate number of male, female employee of other department also which is given in the table.

Department	Total employee	Number of female	Number of male
Accounts	3600*30/100 =1080	1080*40/100 =432	1080-432 =648
HR	3600*25/100 =900	900*60/100 =540	900-540 =360
IT	3600*10/100 =360	360*55/100 =198	360-198 =162
Marketing	3600*35/100 =1260	1260*30/100 =378	1260-378 =882

1. **Answer : E**

   Total female in HR and IT department is 540+198 =738

2. **Answer : D**

   Total number of employee in IT department is

   = (3600*10)/100 =360

   Number of female is 360*55/100 =198

   So, number of male is 360-198 =162

3. **Answer : C**

   Respective ratio

   = (number of male in HR department: number of female in marketing department)

   =360:378 [value from the table]

   =180:189=20:21

Mixed DI Questions for IBPS PO Prelims

4. Answer : B

Total male in all the department is = (648+360+162+882) =2052

Total female in accounts, HR, IT is = (432+540+198) =1170

So the respective difference is (2052-1170) =882

5. Answer: A

So the required percentage is = (162/378)*100=42.85%

Solution (6-10)

Common explanation

	IBPS		CGL		Railways	
	Appeared	**Number student passed**	**Appeared**	**Number of student passed**	**Appeared**	**Number of student passed**
P	560	560*60/100 336	470	470*60/100 282	204	204*50/100 102
Q	720	720*50/100 360	580	580*70/100 406	250	250*60/100 150
R	780	780*70/100 546	450	450*60/100 270	340	340*60/100 204
S	700	700*40/100 280	600	600*75/100 450	200	200*70/100 140

6. Answer: E

So the required percentage is (336/140)*100 =240%

7. Answer: D

Number of candidates appeared from R in CGL is 450

Number of candidates passed from R in Railways is 204

So required ratio is = 450:204=75:34

8. Answer: C

Total Number of candidates passed from Q is =360+406+150 =916

9. Answer: B

Total number of candidates passed from Q and R in CGL is = 406+270 =676

Total number of candidates passed from P and S in SBI is =102+140 =242

So the difference is = 676-242 = 434

10. Answer: A

Solution (11-15)

Common explanation

Runs score by M S Dhoni in T20 format is =18000*15/100=2700

In T20 format out of the total runs score in India is =2700*4/9=1200

Runs score in outside of India in T20 format is =2700*5/9=1500

Others formats runs also calculate in same way are given in the table.

Format	Total runs	Runs in India	Runs in outside of India
T20	18000*15/100 =2700	2700*4/9 =1200	2700*5/9 =1500
ODI	18000*60/100 =10800	10800*7/12 =6300	10800*5/12 =4500
TEST	18000*25/100 =4500	4500*8/15 =2400	4500*7/15 =2100

11. Answer: E

So the respective ratio is

= (runs score in India in T20 format: runs score in outside of India in Test format)

=1200:2100 [value taken from the table]

=4:7

12. Answer: D

Runs score in India in ODI format is 6300

Runs score in India inT20 format is 1200

So the required percentage is (6300/1200) *100 = 525%

13. Answer: C

Solution (16-20)

Total number of candidates passed Railways is = 102+150+204+140=596

Total runs score in outside of India is =(1500+4500+2100) =8100

So the average runs score in outside of India is =8100/3=2700

14. Answer b

Runs score in outside of India in Test is 2700

Runs score in outside of India in ODI is 4500

So ODI (4500-2700) =1800 score than Test format.

So the required percentage =(1800/2700)*100 =66.66%

15. Answer a

So the respective difference is 4500-2100 =2400

Common explanation

Total members in party A is 2500

Number of female members in party A is (2500*40/100) =1000

Number of male members in party A is (2500-1000) =1500

Like same way we can calculate the other parties also which is given in table.

Party	Total members	Female members	Male members
A	2500	2500*40/100 =1000	2500-1000 =1500
B	2100	2100*71.42/100 =1500	2100-1500 =600
C	3200	3200*62.5/100 =2000	3200-2000 =1200
D	3400	3400*60/100 =2040	3400-2040 =1360
E	2800	2800*42.85/100 =1200	2800-1200 =1600

16. Answer: E

Total number of members in A and B is 2500+2100 =4600

Total number of female members in C and E is =2000+1200=3200

So the respective ratio is = 4600:3200 =23:16

17. Answer: D

Male members in A is 1500

Male members in D is 1360

So the respective difference is (1500-1360) =140

18. Answer: C

Total male members in A and E party is 1500+1600 =3100

Total female members in B and D party is 1500+2040 =3540

So required percentage is = {(3100/3540)*100} =87.57%

19. Answer: B

Total male members in A, C, E party is 1500+1200+1600 =4300

So the average male members in this three parties is 4300/3 =1433.33

20. Answer: A

So in party C numbers of male members is 1200-600 =600 more than number of male members in B party.

Solution (21-25)

21. Answer: E

Number of literate people from P is =2500*2/5=1000

Number of illiterate people from Q is =2000*1/4=500

So required percentage is = {(1000-500)/500}*100=100%

22. Answer: D

Female from R is 3000*60/100 =1800

Male from S is 2400*30/100=720

So respective ratio is 1800:720 =5:2

23. Answer: C

Litterte people from P =2500*2/5=1000

Litterte people from Q =3000*5/6=2500

Litterte people from R=2000*3/4=1500

Litterte people from S=2400*2/3=1600

So the total litterte people in all the city together is = (1000+2500+1500+1600) =6600

So the average litterte people is =6600/4=1650

24. Answer: B

We cannot know the data about city T.

25. Answer: A

Female from Q is = 2000*50/100 =1000

Male from R is = 3000*40/100 = 1200

So the respective difference is (1200-1000) = 200

Number of male members in C is 1200 and Number of male members in C is 600.

So required percentage is = (600/600)*100=100%

Solution – (26-30)

26. Answer: A

In container P total quantity of mixture is 30 liter.

Out of 30L amount of milk is 30*2/3=20L and water is 30*1/3= 10L

Let, X liter water should added to the water to make the ratio.

Or, $\frac{20}{X+10} = \frac{2}{3}$

Or, 2x+20=60

Or, x = (60-20)/2=20 liter

27. Answer: D

In container Q total quantity of mixture is 25L.

Milk is 25*4/5=20 and water is 25*1/5=5

Now 5L water is added. So the quantity of water is now 5+5=10

Now ratio of water to milk in mixture is 10:20 =1:2

28. Answer: C

60% mixture from R is 60*40/100 =24 L.

In 24L of mixture amount of milk is (24*5/8) =15L and amount of water is (24*3/8) =9L

40% mixture from P is 30*40/100 =12L, out of that amount of milk is 12*2/3 =8L and amount of water is 12*1/3 =4L.

So, In container T total milk is (15+8) = 23L

In container T total water is (9+4) = 13L

So in container T, milk and water ratio is 23:13

29. Answer: B

In container S, total quantity of mixture is 60.out of that amount milk is

= (60*3/5) =36L

In container R, amount milk is 40*5/8 =25

So the required difference is (36-25) =11

30. Answer: A

50% of mixture taken out from container S.

Now quantity of mixture left in container is 60*50/100 =30L

In 30L, milk is 30*3/5 =18L and water is 30*2/5=12L

2L water is added in container, so amount of water is 12+2=14L

New milk and water ratio is 18:14 = 9:7

Solution (31-35)

31. Answer: E

When two train running opposite direction and cross each other, they have to cross sum their length.

Sum of length of train V and W is = (280+240) =520 m

And relative speed is sum of their speed i.e. (40+20) =60m/sec

So the time taken to cross each other is 520/60=8 2/3sec

32. Answer: D

Train cross a platform in 30 sec.

Let, the length of the platform is L.

So, {(260+L)/15} = 30

Or, L=450-260=190m

This 190 m long platform train Y cross in {(190+180)/30} =37/3 =12.33 sec

33. Answer: C

Let the length of bridge A is p and length of bridge B is q.

Bridge A cross by train X in 16sec

So, (220+p)/25=16, p=400-220=180

Bridge B cross by train W in 20sec

So, (240+q)/20 =20, q=400-240=160

(p – q) =180-160 =20

34. Answer: B

Train Y and Z running same direction so the relative speed is 30-15=15m/sec

Total distance they have to cover is 180+260=440

So time taken to cross one another is 440/15 =29.33sec

35. Answer: A

Sum of total length of train V, X, and Z is 280+220+200 =700

So average length is 700/3 =233.3

Solution (36-40)

Common explanation

Person	Total income	Spend in food	Spend in rent	Spend in bill

M	12000	12000*2/6 =4000	12000*3/6 =6000	12000*1/6 =2000
N	18000	18000*3/9 =6000	18000*4/9 =8000	18000*2/9 =4000
O	20000	20000*5/10 =10000	20000*4/10 =8000	20000*1/10 =2000
P	16000	16000*3/8 =6000	16000*2/8 =4000	16000*3/8 =6000
Q	22000	22000*5/11 =10000	22000*4/11 =8000	22000*2/11 =4000

36. Answer E

So the required ratio is 6000:8000 =3:4

37. Answer D

Total amount spend in bill by O, P and Q is =2000+6000+4000=12000

So the average amount spend in bill is 12000/3 =4000

38. Answer C

Total amount spend by N in food and bill is 6000+4000 =10000

Total amount spend by p in food and bill is 6000+6000=12000

So the difference is 12000-10000=2000

39. Answer B

So required percent is= {(4000/2000)*100} =200%

40. Answer A

Q spends 10000 in food and P spends 4000 in rent.

So Q spend (10000-4000) = 6000 more than P spends in rent.

So the required percent is (6000/4000)*100 =150%

Solution (41-45)

41. Answer E

No of boys in class I is=60*7/12 =35

Total age of boys is = 35*21=735

No of girls in class I is =60*5/12 =25

Total age of girls is =18*25=450

Total age of 60 student in class is =735+450=1185

So the average age of the student class is 1185/60=19.75

42. Answer D

No of boys in class K is 35*5/7 =25

So the total age of boys in class K is =18*25 = 450

No of girls in class J is 45*5/9=25

So the total age of girls in class J is =25*19 = 475

So the required difference is (475-450) = 25

43. Answer C

No of boys in class L is 55*6/11=30

No of boys in class I is 60*7/12 =35

So required percent = (30/35)*100 = 85.71%

44. Answer B

No of boys in class J is 45*4/5 20 and no girls in class J is 25

So total age of the student of class J is

= (20*23) + (19*25) = 935

No of boys in class L is 30 and girls in class L is 55*5/11=25

So the total age of the student of class L is

= (30*19) + (20*25) = 1070

So required ratio is =935:1070=187:214

45. Answer A

Girls in class I =60*5/12 =25

Girls in class J =45*5/9 =25

Girls in class K =35*2/7 =10

Girls in class L =55*5/11 =25

So total no of girls in all the class is =25+25+10+25 =85

Solution (46-50)

Total female 24000*5/12 =10000

Total male is 24000*7/12=14000

46. Answer E

Total number of voter in city P is 24000*25/100 =6000

Number of female in city P is 10000*30/100=3000

Number of male is 6000-3000

So required percentage is (3000/6000)*100 =50%

47. Answer D

Total number of female voter in city R,S,T is (10%+20%+15%) =45%

So the average female voter is 45%/3=15%

So average female voter these three city is 10000*15/100=1500

48. Answer C

Total voters in city R is 24000*20/100 =4800

Total female voters in city R is 10000*10/100 =1000

Total male voters in city R is 4800-1000=3800

Total female voters in city T is 10000*15/100 =1500

So required ratio is 3800:1500 =38:15

49. Answer B

In city Q female voter is 25%

In city T female voter is 15%

So the difference of female in city P and T is (25%-15%) = 10%

So the difference in number of female voter these two cities is

=10000*10/100 =1000

50. Answer A

Total number of voter in Q is =24000*15/100 =3600

Total number of female voter in city Q is =10000*25/100 =2500

Total number of male voter in city Q is =3600-2500 =1100

Total number of voter in city S is =24000*30/100 =7200

Total number of female voter in city S is =10000*20/100 =2000

Total number of male voter in city S is 7200-2000 =5200

So required percentage is =(1100/5200)*100 =21.15%

Mixed DI Questions for IBPS PO Prelims