# DI DS DC Workshop 

| Type of ques | Ques | Your <br> Score | Time |
| :--- | :--- | :--- | :--- |
| Pie Chart |  |  |  |
| Caselet/FIB |  |  |  |
| Chart with ratios |  |  |  |
| Data Sufficiency |  |  |  |
| BODMAS |  |  |  |
| Series |  |  |  |
| Data Comparison |  |  |  |
|  |  |  |  |

To join / enquire call
07045725232
09594938931
09930028086, 09820377380, 09167917984, 09833579791 , 08291984030 , 09167690141, 08796489499,
Buy online cetking.com/shop
Classroom programs location cetking.com/contact
Test 1: 25 questions 20 minutes
Test 2: 25 questions 40 minutes
The following pie-charts show the percentage distribution of the total employees of two Companies $A$ and $B$ in different departments, and the table shows the ratio of Male to Female employees in all the departments of Company $A$ and $B$. The total number of employees working in Company $A$ and $B$ are 8000 and 7500 respectively.

|  | Company A | Company B |
| :--- | :---: | :---: |
|  | Male : Female | Male : Female |
| D1 | $5: 3$ | $13: 7$ |
| D2 | $9: 7$ | $11: 14$ |
| D3 | $5: 7$ | $7: 8$ |
| D4 | $8: 7$ | $17: 13$ |
| D5 | $3: 2$ | $23: 27$ |
| D6 | $9: 5$ | $7: 3$ |



1. What is the total number of Female employees in D5 of Company $A$ and $B$ together?
(a) 705
(b) 710
(c) 715
(d) 720
(e) 725
2. The total number of Female employees in D1 of Company B is approximately how much per cent more than the number of Female employees in D1 of Company A?
(a) $5 \%$
(b) $7.5 \%$
(c) $15 \%$
(d) $22.5 \%$
(e) $30 \%$
3. What is the difference between the total Male employees of Company $A$ and the total Female employees of Company B?
(a) 1230
(b) 1232
(c) 1234
(d) 1236
(e) 1238
4. The average number of Male employees in D1 and D2 of Company B is approximately what percentage of the average number of Female employees in D5 and D6 of Company A? (a)
177.5\%
(b) $197.5 \%$
(c) $212.5 \%$
(d) $217.5 \%$
(e) $227.5 \%$
5. The total number of Females working in Company A is approximately what percentage of total employees of Company A?
(a) $42.12 \%$
(b) $43.48 \%$
(c) $44.24 \%$
(d) $45.64 \%$
(e) $46.86 \%$

## DI DS DC Workshop

Study the following information carefully and answer the questions given below:
In an institute there are 5600 students, the ratio of the number of girls to the number of boys is $3: 4$ respectively. All the students are enrolled in different programmes viz. SSC, Banking, CLAT and FCAT. 20\% of the total number of boys are enrolled in CLAT programme. The number of girls enrolled in Banking is five-fourths of the number of boys taking the same.
One fourth of the total number of girls enrolled in F-CAT programme. The total number of students enrolled in F-CAT programme is 1400 . Two-fifths of the boys enrolled in SSC programme and the remaining boys are enrolled in Banking programme. The girls enrolled in SSC are three fourth of the number of boys enrolled in the same. The remaining girls are enrolled in CLAT programme.
6. What is the respective ratio of the number of boys enrolled in CLAT to the number of boys enrolled in SSC?

1) $1: 2$
2) 

: 3 3)
3) 2 : 3
4) $4: 5$
5) $3: 4$
7. What is the number of girls enrolled in CLAT? 1) 210 2) 260 3) 2804$) 180$ 5) 240
8. What is the total number of students enrolled in Banking? 1) 1060 2) None of these 3) 10804 ) 10405) 1020
9. The number of girls enrolled in F-CAT is approximately what percent of the total number of students enrolled in SSC? 1) $24.8 \%$ 2) $26.8 \%$ 3) $36.8 \%$ 4) 32.9\% 5) $29.4 \%$
10. The number of boys enrolled in CLAT and SSC together is approximately what percent more or less than the number of girls enrolled in SSC?

1) $100 \%$ more 2) $100 \%$ less 3$) 125 \%$ more 4 ) Other than given options 5) $75 \%$ less
11. Question: What will be the total weight of 10 poles, each of the same weight? Statements:
I. One-fourth of the weight of each pole is 5 kg .
II. The total weight of three poles is 20 kilograms more than the total weight of two poles.
a) I alone is sufficient while II alone is not sufficient
b) II alone is sufficient while I alone is not sufficient
c) Either I or II is sufficient
d) Neither I nor II is sufficient
e) Both I and II are sufficient
12. What is the two-digit number whose first digit is a and the second digit is $b$ ?. The number is greater than 9.
I. The number is multiple of 51 .
II. The sum of the digits $a$ and $b$ is 6 .
a) I alone sufficient while II alone not sufficient to answer
b) II alone sufficient while I alone not sufficient to answer
c) Either I or II alone sufficient to answer
d) Both I and II are not sufficient to answer
e) Both I and II are necessary to answer
13. To find out the share of $Y$ out of Rs 1820, which of the following statements is/are sufficient/necessary?
A. The share of $X$ is 1.8 times the combined share of $Y$ and $Z$.
B. The share of $Y$ is $3 / 11$ of the combined share of $X$ and $Z$.
C. The share of $Z$ is $1 / 6$ of the combined share of $X$ and $Y$.
(a) Statements $A$ and $B$ together are sufficient
(b) Statement A and C together are sufficient
(c) Statements B and C together are sufficient

## DI DS DC Workshop

CET king
(d) Either statement $B$ alone or statements $A$ and $C$ together are sufficient
(e) None of these
14. A sum of money Rs 2550 is to be distributed among Knahiya, Varun and Rajneesh. What will be the share of Varun?
A. Knhiya's share is 1.5 times Varun's share.
B. Rajneesh's share is half the share of Knahiya and Varun together.
c. The share of Knahiya is Rs 340 more than Varun.
(a) Either A and B or A and C together are sufficient
(b) Only A and B (c) Only A and C (d) All are required
(e) Even all together are not sufficient
15. To find the temperature on Monday which of the following information is sufficient?
A. The average temperature for Monday, Tuesday and Wednesday was $38^{\circ} \mathrm{C}$.
B. The average temperature for Tuesday, Wednesday and Thursday was $43^{\circ} \mathrm{C}$.
c. The temperature on Tuesday and Thursday was $45^{\circ} \mathrm{C}$ each.
(a) Only A and B are sufficient (b) Only B and C
(c) A and either B or C (d) C and either A or B
(e) All the three together are sufficient

Find the odd number in the following number series?
16. $550,550,549,544,515,330$
(a) 549
(b) 544
(c) 515
(d) 330
(e) 550
17. $450,900,500,800,640,760$
(a) 900
(b) 600
(c) 800
(d) 640
(e) 760

What will come in place of question mark (?) in the following series?
18. $23 \quad 25 \quad 30 \quad 40 \quad 57 \quad$ ?
(a) 63 (b) 72 (c) 83 (d) 93 (e) 102
19. $13 \quad 24 \quad 92 \quad 546 \quad 4360$ ?
(a) 47582 (b) 43590 (c) 54280 (d) 32590 (e) 63200

Directions: What will come in place of question mark(?) in the following questions?
20. $(180 \times 15-12 \times 20) /(140 \times 8+2 \times 55)=$ ?

1) 1 2) 2 3) 3 4) 4 5) 5
21. $(3 / 8)$ of $168 \times 15 \div 5+?=549 \div 9+235$
1) 105 2) 1603$) 1074) 1805) 140$

Compare Quantity x and Quantity y, using additional information centered above the two quantities if such information is given, and select one of the following four answer choices:
A if $x>y$
B if $x \leq y$
C if $x \geq y$
D if $x<y$
$E$ if $x=y$ or relationship between $x$ and $y$ can't be
established
22. I. $11 x+64 / x=54$
II. $12 y^{2}+40 y+17=0$
23. I. $84 x^{2}+115 x+26=0$
II. $27 y^{2}+36 y-15=0$
24. I. $24 x^{2}+25 x-11=0$
II. $45 y^{2}+36 y+7=0$
25. I. $6 x 2-23 \sqrt{ } 3 x+60=0$
II. $2 y^{2}+3 \sqrt{3} y-15=0$

# DI DS DC Workshop 

Solutions

The following pie-charts show the percentage distribution of the total employees of two Companies $A$ and $B$ in different departments, and the table shows the ratio of Male to Female employees in all

|  | Company A | Company B |
| :--- | :---: | :---: |
|  | Male : Female | Male: Female |
| D1 | $5: 3$ | $13: 7$ |
| D2 | $9: 7$ | $11: 14$ |
| D3 | $5: 7$ | $7: 8$ |
| D4 | $8: 7$ | $17: 13$ |
| D5 | $3: 2$ | $23: 27$ |
| D6 | $9: 5$ | $7: 3$ |



the departments of Company $A$ and $B$. The total number of employees working in Company $A$ and $B$ are 8000 and 7500 respectively.
6. What is the total number of Female employees in D5 of Company A and B together?
(a) 705
(b) 710
(c) 715
(d) 720
(e) 725
8. (b)

Total Male employees of Company A
$=1000+765+600+896+480+720$
$=4461$
Total Female employees of Company B
$=630+504+720+520+405+450$
$=3229$
Difference $=4461-3229=1232$
6. (e)

Number of Female employees of Company A in department D5
$=8000 * \frac{10}{100} * \frac{2}{5}=320$
Number of Female employees of
Company B in department D5
$=7500 * \frac{10}{100} * \frac{27}{50}=405$
Total $=320+405=725$
7. The total number of Female employees in D1 of Company B is approximately how much per cent more than the number of Female employees in D1 of Company A?
(a) $5 \%$
(b) $7.5 \%$
(c) $15 \%$
(d) 22.5\%
(e) $30 \%$
7. (a)

Number of Female employees in department D1 of Company B
$=7500 * \frac{24}{100} * \frac{7}{20}=630$
Number of Female employees in department D1 of Company A
$=8000 * \frac{20}{100} * \frac{3}{8}=600$
Required $\%=\frac{630-600}{600} * 100=5 \%$
8. What is the difference between the total Male employees of Company A and the total Femaleemployees of Company B?
(a) 1230
(b) 1232
(c) 1234
(d) 1236
(e) 1238
9. The average number of Male employees in D1 and D2 of Company B is approximately what percentage of the average number of Female employees in D5 and D6 of Company A?
(a) $177.5 \%$ (b) $197.5 \%$ (c) $212.5 \%$ (d) $217.5 \%$ (e) $227.5 \%$
9. (d)

Average number of male employees in
D1and D2 of Company B
$=\frac{1170+396}{2}=\frac{1566}{2}=783$
Average of female employee in D5 and
D6 of Company A
$=\frac{320+400}{2}=\frac{720}{2}=360$
Required \% $=\frac{783}{360} * 100=217.5 \%$
10. The total number of Females working in Company A is approximately what percentage of total employees of Company A?
(a) $42.12 \%$ (b) $43.48 \%$ (c) $44.24 \%$ (d) $45.64 \%$ (e) $46.86 \%$
10. (c)

Total number of Female employees of Company A
$=600+595+840+784+320+400=$ 3539
Total employees of company $\mathrm{A}=8000$
Required $\%=\frac{3539}{8000} * 100=44.24 \%$

Study the following information carefully and answer the questions given below:
In aninstitute there are 5600 students, the ratio of the number of girls to the number of boys is 3:4 respectively. All the students are enrolled in different programmes viz. SSC, Banking, CLAT and F-CAT. 20\% of the total number of boys are enrolled in CLAT programme. The number of girls enrolled in Banking is five-fourths of the number of boys taking the same.

One fourth of the total number of girls enrolled in F-CAT programme. The total number of students enrolled in FCAT rogramme is 1400 . Two-fifths of the boys enrolled in SSC programme and the remaining boys are enrolled in Banking programme. The girls enrolled in SSC are three fourth of the number of boys enrolled in the same. The remaining girls are enrolled in CLAT programme.
6. Whatis the respective ratio of the number of boys enrolled in CLAT to the number of boys enrolled inSSC?

1) $1: 22) 1: 33) 2: 34) 4: 55) 3: 4$
7. What is the number of girls enrolled in CLAT? 1) 210 2) 260 3) 280 4) 180 5) 240
8. What is the total number of students enrolled in Banking?
1) 1060 2) None of these 3) 10804$) 1040$ 5) 1020
9. The number of girls enrolled in F -CAT is approximately what percent of the total number of students enrolled in SSC?
1) $24.8 \%$ 2) $26.8 \%$ 3) $36.8 \%$ 4) $32.9 \%$ 5) $29.4 \%$
10. The number of boys enrolled in CLAT andSSC together is approximately what percent more or less than the number of girls enrolled in SSC?
1) $100 \%$ more 2) $100 \%$ less 3$) 125 \%$ more
2) Other than given options 5) $75 \%$ less
6. 1

|  | Girls | Boys |
| :--- | :--- | :--- |
| SSC | $\frac{3}{4} \times 1280=960$ | $\frac{2}{5} \times 3200=1280$ |
| Banking | 600 | 480 |
| CLAT | 240 | $\frac{20}{100} \times 3200=640$ |
| F-CAT | $\frac{1}{4} \times 2400=600$ | $1400-600=800$ Required ratio $=640: 1280=1: 2$ |

## 7.5

Required answer $=2408.3$
Required answer $=600+480=1080$
9. 2

Required percentage $=600 /(1280+960) * 100=600 / 2240$

* $100=26.8 \%$

10. 1

Required percentage more $=\{(1280+640)-960\} / 960$ *
$100=100 \%$ more
11. C

From I, we conclude that weight of each pole $=(4 \times 5) \mathrm{kg}=20 \mathrm{~kg}$.
So, total weight of 10 poles $=(20 \times 10) \mathrm{kg}=200 \mathrm{~kg}$.
From II, we conclude that:
Weight of each pole $=($ weight of 3 poles $)-($ weight of 2 poles $)=20 \mathrm{~kg}$.
So, total weight of 10 pojes $=(20 \times 10) \mathrm{kg}=200 \mathrm{~kg}$.
12. From statement I:

A two digit number, greater than 9 and multiple of 51 should be 51 itself.
Because, $2 \times 51$ = 102 (3 digit number). Therefore, I alone sufficient to answer.
From statement II:
A two digit number, greater than 9 and sum of the digit is 6 .

It can be $15,24,33,42,51$. So we cannot determine the required answer from the statement II alone.

Thus, I alone give the answer while II alone not sufficient to answer.

# DI DS DC Workshop 

CET king
13.To find out the share of $Y$ out of Rs 1820, which of the following statements is/are sufficient/necessary?
A. The share of $X$ is 1.8 times the combined share of $Y$ and $Z$.
B. The share of $Y$ is $3 / 11$ of the combined share of $X$ and $Z$.
c. The share of $Z$ is $1 / 6$ of the combined share of $X$ and $Y$.
(a) Statements $A$ and $B$ together are sufficient
(b) Statement A and C together are sufficient
(c) Statements B and C together are sufficient
(d) Either statement $B$ alone or statements $A$ and $C$ together are sufficient
(e) None of these

## S1. Ans.(e)

Sol.
Only statement B is sufficient
$\mathrm{Y}:(\mathrm{X}+\mathrm{Z})=3: 11$
$\therefore \mathrm{Y}=\frac{3}{(3+11=) 14} \times 1820=3 \times 130=$ Rs. 390
14.A sum of money Rs 2550 is to be distributed among Knahiya, Varun and Rajneesh. What will be the share of Varun?
A. Knhiya's share is 1.5 times Varun's share.
B. Rajneesh's share is half the share of Knahiya and Varun together.
c. The share of Knahiya is Rs 340 more than Varun.
(a) Either A and B or A and C together are sufficient
(b) Only A and B (c) Only A and C (d) All are required
(e) Even all together are not sufficient

S2. Ans. (a)
Sol.
$A \rightarrow K: V=3: 2$
$B \rightarrow K: V: R=3: 2: \frac{5}{2}=6: 4: 5$ (from $A$ )
$\mathrm{C} \rightarrow \mathrm{K}-\mathrm{V}=340$
By combining either $A$ and $B$ together or $A$ and
$C$ together, the share of Vijay can be calculated.
15.To find the temperature on Monday which of the following information is sufficient?
A. The average temperature for Monday, Tuesday and Wednesday was $38^{\circ} \mathrm{C}$.
B. The average temperature for Tuesday, Wednesday and Thursday was $43^{\circ} \mathrm{C}$.
c. The temperature on Tuesday and Thursday was $45^{\circ} \mathrm{C}$ each.
(a) Only A and B are sufficient (b) Only B and C
(c) A and either B or C (d) C and either A or B
(e) All the three together are sufficient

## S3. Ans.(e)

Sol.
$\mathrm{A} \Rightarrow \mathrm{M}+\mathrm{T}+\mathrm{W}=114$
$B \Rightarrow T+W+T h=129$
$\mathrm{C} \Rightarrow \mathrm{T}=\mathrm{Th}=45$
From $A, B$ and $C$, we will get $M=30^{\circ}$
1617.

550, 550, 549, 544, 515, 306
(a) 549 (b) 544 (c) 515 (d) 306 (e) 550

```
S11. Ans.(d)
```

Sol.


450, 900, 600, 800, 640, 768
(a) 900 (b) 600 (c) 800 (d) 640 (e) 768

18. Series Pattern Given Series

2323
$23+(12+1)=25 \quad 25$
$25+(22+1)=3030$
$30+(32+1)=40 \quad 40$
$40+(42+1)=57 \quad 57$
$57+(52+1)=8383$

| 19. Series Pattern | Given Series |
| :---: | :---: |
| 13 | 13 |
| $13 \times 2-2=24$ | 24 |
| $24 \times 4-4=92$ | 92 |
| $92 \times 6-6=546$ | 546 |
| $546 \times 8-8=4360$ | 4360 |
| $4360 \times 10-10=43590$ | 43590 |

20 Correct Option: B
By the applying BODMAS rule, we get
Given expression $=(2700-240) /(1120+110) \Rightarrow(2460 / 1230) \Rightarrow 2$
21. Correct Option: C

Let $(3 / 8)$ of $168 \times 15 \div 5+A=549 \div 9+235$
Then, $63 \times 15 \div 5+A=549 \div 9+235$
$\Rightarrow 63 \times 3+A=61+235$
$\Rightarrow 189+A=296, \quad A=107$.
I. $11 x+64 / x=54$
$\Rightarrow 11 x^{2}-54 x+64=0$
$11 x^{2}-22 x-32 x+64=0$
$11 x(x-2)-32(x-2)=0$
$x=2$ or $x=\frac{32}{11}$
II. $12 y^{2}+40 y+17=0$
$12 y^{2}+6 y+34 y+17=0$
$6 y(2 y+1)+17(2 y+1)=0$
$y=-\frac{1}{2}$ or $y=-\frac{17}{6}$
$\therefore \mathrm{x}>\mathrm{y}$
Hence, option A is correct.
23.

Correct Option: E
I. $84 x^{2}+115 x+26=0$
$84 x^{2}+91 x+24 x+26=0$
$7 x(12 x+13)+2(12 x+13)=0$
$\Rightarrow x=-\frac{2}{7}$, or $-\frac{13}{12}$
II. $27 y^{2}+36 y-15=0$
$27 y^{2}+45 y-9 y-15=0$
$9 y(3 y+5)-3(3 y+5)=0$
$y=\frac{1}{3},-\frac{5}{3}$
$\therefore$ There is no relationship between x and y .
Hence, option E is correct.
24.

## DI DS DC Workshop

Correct Option: E
I. $24 x^{2}+25 x-11=0$
$24 x^{2}-8 x+33 x-11=0$
$8 \mathrm{x}(3 \mathrm{x}-1)+11(3 \mathrm{x}-1)=0$
$\Rightarrow x=\frac{1}{3},-\frac{11}{8}$
II. $45 y^{2}+36 y+7=0$
$45 y^{2}+15 y+21 y+7=0$
$15 y(3 y+1)+7(3 y+1)=0$
$y=-\frac{1}{3},-\frac{7}{15}$
$\therefore$ There is no relationship between x and y .
Hence, option E is correct.
25.
I. $6 x^{2}-23 \sqrt{ } 3 x+60=0$
$6 x^{2}-8 \sqrt{ } 3 x-15 \sqrt{ } 3 x+60=0$
$2 x(3 x-4 \sqrt{ } 3)-5 \sqrt{ } 3(3 x-4 \sqrt{ } 3)=0$
$(2 x-5 \sqrt{ } 3)(3 x-4 \sqrt{ } 3)=0$
$x=2.5 \sqrt{ } 3,1.33 \sqrt{ } 3$
II. $2 y^{2}+3 \sqrt{ } 3 y-15=0$
$2 y^{2}+5 \sqrt{ } 3 y-2 \sqrt{ } 3 y-15=0$
$y(2 y+5 \sqrt{ } 3)-\sqrt{ } 3(2 y+5 \sqrt{ } 3)=0$
$(2 y+5 \sqrt{ } 3)(y-\sqrt{ } 3)=0$
$y=\sqrt{ } 3,-2.5 \sqrt{ } 3$
Therefore, for any value of $x$ and any value of $y$
$x>y$
Hence, option A is correct.

