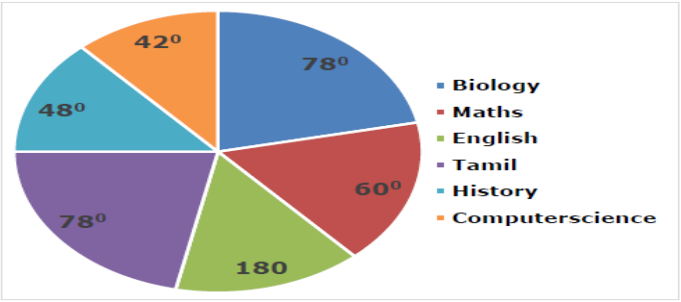
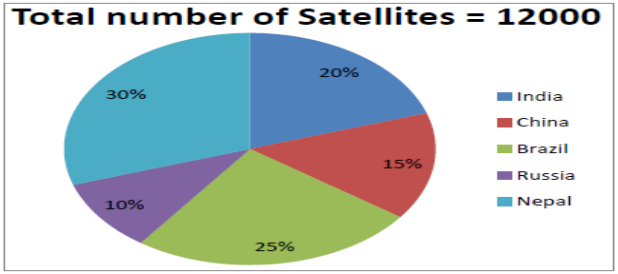
DI Test 7

Directions (1-5): Study the following information carefully and answer the questions given below. The given pie chart shows the degree distribution of the marks scored by Ravi in each subject.
Note: The mark scored by Ravi in English is 180



1) Find the ratio between the total marks scored in Maths and English together to the total marks scored in History and Biology together?
A. 20:21 B. 19:21 C. 21:19 D. 21:17 E. None of these
2) Mark scored in Tamil is what percent more or less than the average marks scored in History and Biology?
A. 27.98% B. 23.12% C. 23.80% D. 38.5% E. None
3) Naveen scored 240 marks in English and the mark distribution angle are as same as Ravi, Find the difference between the marks scored in Biology and Maths by Naveen? A. 40 B. 100 C. 120 D. 80 E. None of these
4) In how many Subjects, the marks scored by Ravi is more than the average mark scored by Ravi in all the subject together? A. 2 B. 4 C. 1 D. 5 E. None
5) The mark scored by Keerthi in History, Tamil and Maths are 200, 250 and 180 respectively, and remaining subject's marks are as same as the Ravi scored in that subject. Total mark scored by Keerthi is what percent of the total mark scored by Ravi? A. 100% B. 100.83% C. 100.54% D. 150% E. None of these
Directions (6-10): Study the following information carefully and answer the questions given below.
The given pie chart shows the number of satellites launched by five different countries.



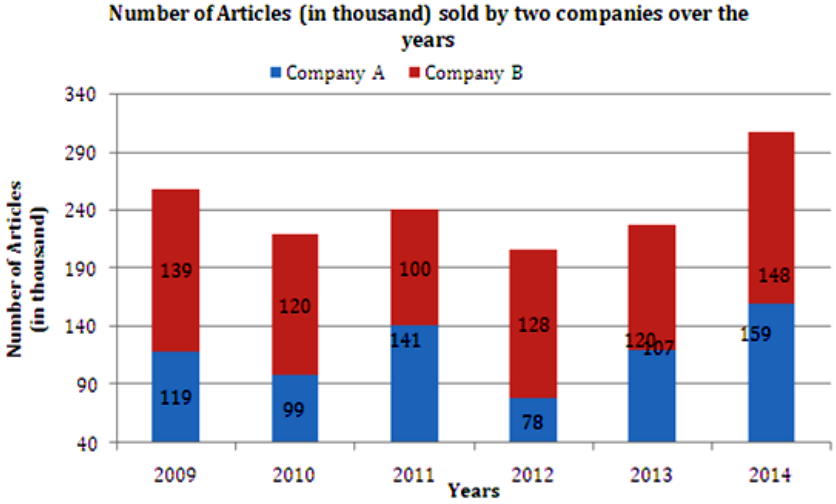
6) The number of satellites launched by Brazil is what percent of the number of satellites launched by Nepal?
A. 80.55% B. 82.22% C. 83.33% D. 84.44% E. 85.55%
7) The ratio of the number of remote and communication satellites launched by China is 3:2. Find the number of communication satellites launched by China? (Consider only remote and communication satellites launched by China)
A. 720 B. 750 C. 780 D. 800 E. 810
8) The number of satellites launched by the US is 20% more than the number of satellites launched by India. Find the difference between the number of satellites launched by US and Russia? A. 1640 B. 1660 C. 1670 D. 1680 E. 1630
9) Find the average number of satellites launched by India, Brazil and Nepal?
A. 2800 B. 3000 C. 3200 D. 3500 E. 3600
10) Ratio of the number of network and agriculture related satellites launched by Russia is 7:8. Find the number of agriculture related satellites launched by Russia? (Consider only the network and agriculture related satellites launched by Russia)
A. 640 B. 650 C. 660 D. 670 E. 680
Directions (11-15): Read the following table and answer the following question.
The table given bellows gives the total number of children that took birth in different districts in year 2005 and percentage of boys out of these children.

Districts	No. of children that took birth	Percentage of boys out of total children
A	450	30%
B	500	64%
C	470	50%
D	350	36%
E	650	48%
F	525	32%

11. Total number of baby boys from district A and B together is how much more/less than total number of baby girls from district E and F together?
(a) 240 (b) 230 (c) 250 (d) 300 (e) None of these
12. The average number of children from district E, C and D together is approximately what percent less/more than the no. of baby boys from districts D,E and F together?
(a) 33.33% (b) 19.14% (c) 26.66% (d) 16.66% (e) none of these
13. Find the ratio of the baby boys from district D and E together to the baby girls from district D, E and F together?
(a) 410 : 931 (b) 431 : 941 (c) 438 : 919 (d) 419 : 919 (e) None of these
14. The no. of baby girls from district C is what percent more/less than the baby boys from district A? (rounded off to nearest integer)
(a) 64.07% (b) 54.07% (c) 44.07% (d) 74.07% (e) None of these
15. Find the ratio of no. of children from districts B and E to the no. of baby girls from districts C and A?
(a) 21:43 (b) 21:23 (c) 23:11 (d) 23:12 (e) None of these
Directions (16-20): There are five students who appeared for RBI Grade B exam. Paper consists of 100 questions with 1 mark for each correct answer and 0.25 marks for each wrong answer.

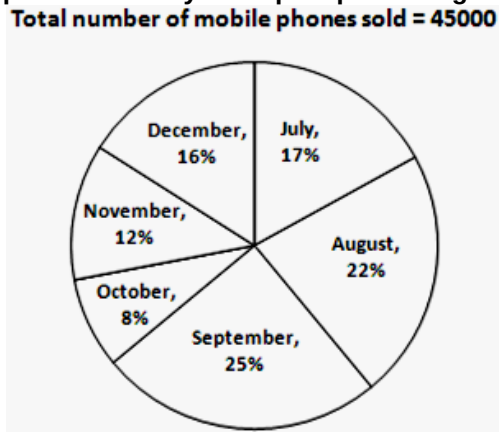
name	Questions attempted	Right questions	Wrong questions	Marks obtained
Aditya	78	--	--	70.5
Puskar	92	76	--	--
Anshuman	98	--	36	--
Alka	--	30	--	27.25
Avanish	56	--	--	53.50

Q16. Difference between total right number of questions of all students together and total wrong no. of questions of all students together is
(a) 141 (b) 161 (c) 223 (d) 156 (e) None of these
Q17. Marks obtained by Aditya and Puskar together is what % of the marks obtained by Anshuman, Avanish and Alka together ? (rounded off to 2 decimal places)
(a) 106.54% (b) 91.16% (c) 95.20% (d) 96.71% (e) 101.71%
Q18. If the penalty of the wrong answer is 0.33 then marks obtained by Aditya, Anshuman and Puskar together is
(a) 192.21 (b) 224.19 (c) 190.86 (d) 219.14 (e) 194.22
Q19. If the passing % marks in the exam is 50 marks than at least how many questions has to be answered right by Puskar? (He attempted 92 questions)
(a) 58 (b) 56 (c) 59 (d) 55 (e) 60
Q20. What is the percent of marks obtained by all of them together?
(a) 59.03% (b) 53.15% (c) 52.53% (d) 45.05% (e) 55.25%
Directions (21-25): Study the following line graph and answer the questions based on it.



21. What is the ratio of number of articles sold by company A in year 2010, 2012 and 2014 together to the number of articles sold by company B is 2011, 2013 and 2014?
(a) 336/375 (b) 436/453 (c) 353/553 (d) 342/451 (e) None of these
22. If 24% of articles sold by company A in 2013 and 22% of articles sold by company A in 2014 are defective. Then defective articles sold by A in 2013 and 2014 are what percent less than articles sold by company B in 2010 and 2012 together? (Approx)
(a) 70% (b) 74% (c) 80% (d) 72% (e) None of these
23. What is the approximate difference between the average of articles sold by company A and B in over the given period?
(a) 4320 (b) 3320 (c) 4333 (d) 3333 (e) None of these
24. Number of articles sold by company A in 2009, 2011 and 2013 together is approximately what percent more than the average of article's sold by company B in year 2012, 2013 and 2014?
(a) 190% (b) 200% (c) 197% (d) 180% (e) None of these

25. If number of articles sold by company B in 2015 is 78% more than the difference between articles sold by company A and Company B in 2014 then find the approximately increase are decrease in the articles sold by company B in 2015 from previous year
(a) 77% increase (b) 87% decrease (c) 77% decrease (d) 92% decrease (e) None
Directions (26-30): Study the following pie-chart and table carefully and answer the questions given below: Percentage-wise distribution of the number of mobile phones sold by a shopkeeper during six months



The ratio between the numbers of mobile phones sold of Company A and Company B during six months

Month	Ratio
July	8 : 7
August	4 : 5
September	3 : 2
October	7 : 5
November	7 : 8
December	7 : 9

26. What is the ratio of the number of mobile phones sold of Company B during July to those sold during December of the same company?
(a) 119: 145 (b) 116: 135 (c) 119: 135 (d) 119: 130 (e) None of these
27. If 35% of the mobile phones sold by Company A during November were sold at a discount, how many mobile phones of Company A during that month were sold without a discount?
(a) 882 (b) 1635 (c) 1638 (d) 885 (e) None of these
28. If the shopkeeper earned a profit of Rs. 433 on each mobile phone sold of Company B during October, what was his total profit earned on the mobile phones of that company during the same month?
(a) Rs. 6,49,900 (b) Rs. 6,45,900 (c) Rs. 6,49,400 (d)Rs. 6,49,500 (e) None of these
29. The number of mobile phones sold of Company A during July is approximately what percent of the number of mobile phones sold of Company A during December? (a) 110 (b) 140 (c) 150 (d) 105 (e) 130
30. What is the total number of mobile phones sold of Company B during August and September together? (a) 10000 (b) 15000 (c) 10500 (d) 9500 (e) None

Directions (1-5):
Mark scored in English = 180
Mark scored in English = 3600 – (78+60+78+48+42)0 = 540 = 180
Therefore total marks = 3600/540 * 180 = 1200
Mark scored in Biology = 780/540 * 180 =260
Mark scored in Maths = 600/540 * 180 = 200
Mark scored in Tamil = 780/540 * 180 = 260
Mark scored in History = 480/540 * 180 = 160
Mark scored in Computer Science = 420/540 * 180 = 140
1) Answer: B
Required ratio = (200+180) : (160+260) = 380 : 420 = 19:21
2) Answer: C
Average marks of History and Biology = 160+260 = 420/2 = 210
Required % = (260-210)/210 * 100 = (50/210)*100 = 23.80%
3) Answer: D
Naveen: English = 540 = 240
Difference of maths and Biology = 780- 600 = 180
Required difference = (180/540)*240 = 80
4) Answer: A
Average mark = 1200/6 = 200
Biology and Tamil only scored more than average marks.
5) Answer: B
Keerthi's total mark = 200+250+180+180+260+140 = 1210
Required Percentage = 1210/1200 * 100 = 100.83%
Directions (6-10):
6) Answer: C
Required % = 25/30 * 100 = 83.33%
7) Answer: A
Required total = 2/5 * 15/100 * 12000 = 720
8) Answer: D
Required difference = 120/100 * 20/100 * 12000 – 10/100 * 12000 = 1680
9) Answer: B
Required average = (20 + 25 + 30)/300 * 12000 = 3000
10) Answer: A
Required total = 8/15 * 10/100 * 12000 = 640
{11 – 15}
11

(a); Baby boys from district A & B = $\frac{30}{100} \times 450 + \frac{64}{100} \times 500$
$= 135 + 320 = 455$
Baby girls from district E and F
$= \frac{52}{100} \times 650 + \frac{68}{100} \times 525$
$= 338 + 357 = 695$
Required Difference = 695 – 455 = 240

12

(b); Average no. of children from E, C & D
$= \frac{650 + 470 + 350}{3}$
$= \frac{1470}{3} = 490$
No. of baby boys from D, E and F
$= 350 \times \frac{36}{100} + 650 \times \frac{48}{100} + 525 \times \frac{32}{100}$
$= 606$
Required % $= \frac{606 - 490}{606} \times 100 = 19.14\%$

13

(c); No. of Baby boys from D & E
$= 350 \times .36 + 650 \times .48$
$= 126 + 312 = 438$
No. of Baby girls from D, E & F
$= 350 \times .64 + 650 \times .52 + 525 \times .68$
$= 919$
Ratio $= \frac{438}{919}$

14

(d); No. of Baby boys from A = 450 × .30 = 135
No. of Baby girls from C = 470 × .50 = 235
Required % $= \frac{235 - 135}{135} \times 100 = 74.07\%$

15

(c); No. of Baby girls from C & A = 470 × .50 + 450 × .70
$= 235 + 315 = 550$
Required ratio $= \frac{500 + 650}{550} = \frac{1150}{550} = \frac{23}{11}$

{16 – 20}

16

S1. Ans.(c)
Sol.
Required difference = (72 + 76 + 62 + 30 + 54) – (6 + 16 + 36 + 11 + 2)
= 294 – 71 = 223

17

S2. Ans.(a)
Sol.
Required % $= \frac{70.5+72}{53+27.25+53.50} \times 100$
= 106.54%

18

S3. Ans.(c)
Sol.
Required marks = (72+76+62)–0.33(6+16+36) = 190.86

19

S4. Ans.(c)

Sol.

By options

Let right Questions = 59

$\therefore$ marks $= 92 - \frac{1}{4}(92 - 59) = 50.75$

20

S5. Ans.(e)

Sol.

Required % $= \frac{70.5+72+53+27.25+53.50}{500} \times 100 = 55.25\%$

{21 – 25}

21

S11. Ans.(a)

Sol.

Number of articles sold by company A in 2010, 2012 and 2014 = 99000 + 78000 + 159000

= 336000

Number of articles sold by company B in 2010, 2013 and 2014

= 120000 + 107000 + 148000

= 375000

Required ratio= 336/375

22

S12. Ans.(d)

Sol.

Defective articles in 2013 by A $= \frac{24}{100} \times 1{,}20{,}000$

= 28800

Defective article in 2014 by A $= \frac{22}{100} \times 159{,}000$

= 34980

Articles sold by company B in 2010 & 2012 = 120000 + 128000

Required % $= \frac{248000 - 63780}{248000} \times 100$

$\approx$ 72%

23

S13. Ans.(c)

Sol.

Average of articles sold by company A $= \frac{119000+99000+141000+78000+120000+159000}{6}$

$= \frac{1000(119 + 99 + 141 + 78 + 120 + 159)}{6}$

$\approx$ 119333

Average of articles sold by company B

$= \frac{1000(139 + 120 + 100 + 128 + 107 + 148)}{6}$

$\approx$ 123666

Required difference = 123666 – 119333

= 4333

24

S14. Ans.(c)

Sol.

Number of articles sold by company A in 2009, 2011, and 2013 = 1000(119 + 141 + 120)

= 380000

Average of articles sold by company B in 2012, 2013 and 2014

$= \frac{(128 + 107 + 148) \times 1000}{3}$

$= \frac{383000}{3} = 127666.66$

$\approx$ 127666

Required percentage $= \frac{252334}{127666} \times 100$

= 197%

25

S15. Ans.(b)

Sol.

Difference of articles sold by company A & B in 2014

= (159 – 148)1000

= 11000

Articles sold by company B in 2015 $= \frac{178}{100} \times 11000$

= 19580

Decrease in percentage of B from 2014 to 2015 $= \frac{148000-19580}{148000} \times 100 \approx 87\%$

{26 – 30}

26

S1. Ans.(c)
Sol.

Total number of mobiles sold in the month of July = $45000 \times \frac{17}{100} = 7650$

Mobile phones sold by Company B in the month of July = $7650 \times \frac{7}{15} = 3570$

Total numbers of mobile phones sold in the month of December = $45000 \times \frac{16}{100} = 7200$

Mobile phones sold by Company B in the month of December = $7200 \times \frac{9}{16} = 4050$

$\therefore$ Required ratio = $\frac{3570}{4050} = \frac{357}{405} = \frac{119}{135} = 119 : 135$

27

S2. Ans.(c)
Sol.

Number of mobile phones sold in the month of November = $45000 \times \frac{12}{100} = 5400$

Number of mobile phones sold by Company A in the month of November = $5400 \times \frac{7}{15} = 2520$

$\therefore$ Number of mobile phones sold without discount in the month of November by Company A

$= 2520 \times \frac{65}{100} = 2520 \times 0.65 = 1638$

28

S3. Ans. (d)
Sol.

Number of mobile phones sold in the month of October = $45000 \times \frac{8}{100} = 3600$

$\therefore$ Number of mobile phones sold by Company B in the month of October = $3600 \times \frac{5}{12} = 1500$

$\therefore$ Total profit earned by Company B in the month of October = $1500 \times 433 = 649500$

29

S4. Ans.(e)
Sol.

Number of mobile phones sold in the month of July = $45000 \times \frac{17}{100} = 7650$

Number of mobile phones sold by Company A in the month of July = $7650 \times \frac{8}{15} = 4080$

Number of mobile phones sold in the month of December = $45000 \times \frac{16}{100} = 7200$

Number of mobile phones sold by Company A in the month of December = $7200 \times \frac{7}{16} = 3150$

$\therefore$ Required % = $\frac{4080}{3150} \times 100 = 129.52 \approx 130$

30

S5. Ans.(a)
Sol.

Number of mobile phones sold in the month of August = $\frac{22}{100} \times 45000 = 9900$

Number of mobile phones sold in the month of September = $\frac{25}{100} \times 45000 = \frac{1}{4} \times 45000 = 11250$

Number of mobile phones sold by Company B in the month of August = $9900 \times \frac{5}{9} = 5500$

Number of mobile phones sold by Company B in September = $11250 \times \frac{2}{5} = 4500$

Total number of mobile phones sold in August and September by Company B = 5500 + 4500

= 10000