Q1 to 5 are based on the following information(1993):
A Teacher keeps data on students tabulated by performance and sex of the student. The data is kept on a computer disk, but unfortunately some of it is lost because of a virus. Only the following could be recovered :

	Performance			Total
	Average	Good	Excellent	
Male			10	
Female				32
Total		30		

Panic buttons were pressed but to no avail. An expert committee was formed, which decided that the following facts were self evident:

Half the students were either excellent or good.
40% of the students were females.
One third of the male students were average.

Q1. How many students were both female and excellent?
(a) 0
(b) 8
(c) 16
(d) 32

Q2. How many students are both male and good?
(a) 10   (b) 16   (c) 22   (d) 48

Q3. Among average students, what is the ratio of male to female?
(a) 1 : 2 (b) 2 : 1 (c) 3 : 2 (d) 2 : 3

Q4. What proportion of female students are good?
(a) 0   (b) 0.25 (c) 0.5   (d) 1.0

Q5. What proportion of good students are male?
(a) 0   (b) 0.73 (c) 0.4   (d) 1.0

Q6 to Q9 are based on the following table and information given below(1994):
In 1984 – 85 value of exports of manufactured articles exceeds over the value of exports of raw materials by 100%.
In 1985 – 86 the ratio of % of exports of raw material to that of exports of manufactured articles is 3 : 4.
Exports of food in 1985 – 86 exceeds the 1984 – 85 figures by Rs. 1006 crore.

Item	1984-85	1985-86
Food		23%
Manufactured Articles		
Raw Material		
Total Value of Exports in Crore of Rs.	22400	25800

Q6. In 1984 – 85 what percentage of total values of exports accounts for items related to food
(a) 23%
(b) 29.2%
(c) 32%
(d) 22%

Q7. During 1984 – 85, how much more raw material than food was exported?
(a) Rs. 2580 crore
(b) Rs. 896 crore
(c) Rs. 1986 crore
(d) Rs. 1852 crore

Q8. Value of exports of raw materials during 84 – 85 was how much percent less than that for 85 – 86?
(a) 39
(b) 46.18
(c) 7
(d) 31.6

Q9. The change in value of exports of manufactured articles from 1984 – 85 to 1985 – 86 is
(a) 296 crore
(b) 629 crore
(c) 2064 crore
(d) 1792 crore

DIRECTIONS for Questions 10 to 13 (2004): Answer the questions on the basis of the information given below.
The Dean's office recently scanned student results into the central computer system. When their character reading software cannot read something, it leaves that space blank. The scanner output .
reads as follows:

Name	Finance	Marketing	Statistics	Strategy	Operations	GPA
Aparna		B	F			1.4
Bikas	D	D	F	F		
Chandra		D	A	F	F	2.4
Deepak	A	B		D	D	3.2
Fazal	D	F	B		D	2.4
Gowri	C	C	A		B	3.8
Hari		B	A		D	2.8
Ismet			B		A	
Jagdeep	A	A	B		C	3.8
Kunal	F		A	F	F	1.8
Leena	B	A		B	F	3.2
Manab			A	B	B	
Nisha	A	D	B	A	F	3.6
Osman	C		B	B	A	4.6
Preeti	F	D		D		3.2
Rahul	A	C	A		F	4.2
Sameer		C	F	B		
Tara	B					2.4
Utkarsh			F	C	A	3.0
Vipul	A		C	C	F	2.4

In the grading system, A, B, C, D, and F grades fetch 6, 4, 3, 2, and 0 grade points respectively. The Grade
Point Average (GPA) is the arithmetic mean of the grade points obtained in the five subjects. For example
Nisha's GPA is (6 + 2 + 4 + 6 + 0)/5 = 3.6

Some additional facts are also known about the students' grades. These are:

(a) Vipul obtained the same grade in Marketing as Aparna obtained in Finance and Strategy.
(b) Fazal obtained the same grade in Strategy as Utkarsh did in Marketing.
(c) Tara received the same grade in exactly three courses.

Q10. In Operations, Tara could have received the same grade as _____.
(1) Ismet   (2) Hari
(3) Jagdeep   (4) Manab

Q11. What grade did Preeti obtain in Statistics?
(1) A   (2) B
(3) C   (4) D

Q12. What grade did Utkarsh obtain in Finance?
(1) B   (2) C
(3) D   (4) F

Q13. In Strategy, Gowri's grade point was higher than that obtained by _____.
(1) Fazal   (2) Hari
(3) Nisha   (4) Rahul

DIRECTIONS for Questions 14 to 17 Answer the following questions based on the information given below (2007) :
The proportion of male students and the proportion of vegetarian students in a school are given below. The school has a total of 800 students, 80% of whom are in the Secondary Section and rest equally divided between Class 11 and 12

	Male (M)	Vegetarian (V)
Class 12	0.6	
Class 11	0.55	0.5
Secondary Section		0.55
Total	0.475	0.53

Q14. What is the percentage of vegetarian students in Class 12?
(1) 40   (2) 45   (3) 50   (4) 55   (5) 60

Q15. In Class 12, twenty five per cent of the vegetarians are male. What is the difference
between the number of female vegetarians and male non-vegetarians?
(1) less than 8   (2) 10   (3) 12   (4) 14   (5) 16

Q16. What is the percentage of male students in the secondary section?
(1) 40   (2) 45   (3) 50   (4) 55   (5) 60

Q17. In the Secondary Section, 50% of the students are vegetarian males. Which of the following statements is correct?

(1) Except vegetarian males, all other groups have same number of students.
(2) Except non-vegetarian males, all other groups have same number of students.
(3) Except vegetarian females, all other groups have same number of students.
(4) Except non-vegetarian females, all other groups have same number of students
(5) All of the above groups have the same number of students.

Directions for Questions 18 to 20 Answer the following questions based on the information given below(2008):
For admission to various affiliated colleges, a university conducts a written test with four different sections, each with a maximum of 50 marks. The following table gives the aggregate as well as the sectional cut-off marks fixed by six different colleges affiliated to the university. A student will get admission only if he/she gets marks greater than or equal to the cut-off marks in each of the section and his/her aggregate marks are at least equal to the aggregate cut-off marks as specified by the college.

	Sectional Cut-off Marks				Aggregate Cut-off Marks
	Section A	Section B	Section C	Section D	
College 1	42	42	42		176
College 2		45	45		175
College 3			46		171
College 4	43			45	178
College 5	45		43		180
College 6		41		44	176

Q18. Aditya did not get a call from even a single college. What could be the maximum aggregate marks
obtained by him?
(1) 181   (2) 176   (3) 184   (4) 196   (5) 190

Q19. Bhama got calls from all colleges. What could be the minimum aggregate marks obtained by her?
(1) 180   (2) 181   (3) 196   (4) 176   (5) 184

Q20. Charlie got calls from two colleges. What could be the minimum marks obtained by him in a section?
(1) 0   (2) 21   (3) 25   (4) 35   (5) 41

Study the pie chart and line graph to answer the following questions.
Percentage profit or loss for following dry fruits is based on the sum of cost price and transportation cost.

Name of Product	CP	SP	Cost of transportation	Profit	Loss	Profit or loss %(on total c.p.)
Pista	900		300			
Prune		800	0		300	
Groundnut	2000		500	250		
Apricot		5000	0			5% loss
Raisins	6000		400			7% Profit

Q11. The percentage profit on Pista is 5%. What will be its selling price?
(a) 1000
(b) 1250
(c) 1260
(d) 1200
(e) 1160

Q12. The selling price of Groundnut is what percent of the cost price of Prune?
(a) 200%
(b) 250%
(c) 280%
(d) 255%
(e) 240%

Q13. What is the ratio of the loss on Apricot to that on Prune?
(a) 49 : 58
(b) 50 : 57
(c) 50 : 59
(d) 40 : 47
(e) None of these

Q14. What is the difference between the selling price of Raisins and that of Groundnut?
(a) 4098
(b) 4100
(c) 4000
(d) 4198
(e) 3998

Q15. If the loss on Pista is 10% then its selling price is what percentage less than the selling price of Raisins?
(a) 89%
(b) 92%
(c) 94%
(d) 84%
(e) 88%

S11.Ans(c)
Sol. CP of Pista = Rs 900
Transportation cost = Rs. 300
$\therefore$ Total CP = 900 + 300 = 1200
Given Profit percent = 5%
$\therefore SP = 1200 \times \frac{105}{100} = $ Rs. 1260

S12. Ans (b)
Sol.
SP of Groundnuts = (CP + Transportation cost + Profit) = 2000 + 500 + 250 = 2750
$\therefore$ CP of PRUNE = SP + Loss = 800 + 300 = 1100
Required percentage = $\frac{2750}{1100} \times 100 = 250$ % of the CP of PRUNE

S13. Ans(b) Loss on Apricot = $5000 \times \frac{100}{95} - 5000 = 5000\left[\frac{5}{95}\right]$
Loss on PRUNE = Rs. 300
$\therefore$ Required Ratio = $\frac{5000 \times 5}{95 \times 300} = 50 : 57$

S14. Ans(a)
Ans.
SP of Raisins = CP + Cost of Transportation + Profit
= 6000 + 400 + 7% of (6000 + 400) = 107% of 6400 = Rs. 6848
Selling Price of Groundnut = 2000 + 500 + 250 = 2750
$\therefore$ Desired Difference = 6848 − 2750 = 4098

S15. Ans(d)
Sol.
CP of Pista = 900 + 300 = 1200
Given Loss % = 10% $\therefore$ 10% of 1200 = 120
$\therefore$ SP of Pista = 1200 − 1080 = 1080
& SP of Raisins = 107% of 6400 = 6848
Required Percentage = $\frac{6848-1080}{6848} \times 100 = \frac{5768}{6848} \times 100 \approx 84\%$

Study the table and answer the given questions.
Data related to candidates appeared and qualified from a state in a competitive exam during 5 years

Years No. of appeared candidates % of appeared candidates who qualified Respective ratio of number of qualified male & female candidates

Years	No. of appeared candidates	% of appeared candidates who qualified	Respective ratio of number of qualified male & female candidates
2011	700	—	3 : 2
2012	—	—	5 : 3
2013	480	60%	—
2014	—	42%	9 : 5
2015	900	64%	—

Q1. In 2015, if the number of female qualified candidates was 176, what was the respective ratio of number of male

qualified candidates and number of female qualified candidates in 2015 ?
(a) 25 : 16
(b) 5 : 4
(c) 25 : 11
(d) 21 : 16
(e) None of these

Q2. The number of appeared candidates increased by 40% from 2011 to 2016. If 25% of the appeared candidates qualified in 2016, what was the number of qualified candidates in 2016?
(a) 240
(b) 225
(c) 255
(d) 245
(e) None of these

Washing Machines	C.P. (in Rs.)	Profit%	Loss%	S.P. (in Rs.)
Samsung	9375	—	—	7968.75
LG	—	14%	—	21375
Videocon	12325	—	18%	—
Godrej	10385	—	—	14019.75
Panasonic	—	24%	—	5022
Whirlpool	14360	—	—	12924

Q3. In 2012, the respective ratio of number of appeared candidates to the qualified candidates was 5:4. Number of female qualified candidates constitutes what per cent of number of appeared candidates in the same year?
(a) 20
(b) 25
(c) 30
(d) 15
(e) 40

Q4. In 2014, if the difference between number of male qualified candidates and female qualified candidates was 72, what was the number of appeared candidates in 2014?
(a) 800
(b) 900
(c) 850
(d) 600
(e) None of these

Q5. If the average number of qualified candidates in 2011 and 2013 was 249, what percent of appeared candidates qualified in the competitive exam in 2011?
(a) 40
(b) 30
(c) 20
(d) 35
(e) 25

Directions (Q.6-10): A dealer purchased 6 old washing machines of 6 different companies from OLX and sold them in market. Given below is the data showing cost price, selling price and profit/loss percentage.

Q6. Cost price of Panasonic washing machine is what percent of selling price of Videocon washing machine? (approximate)
(a) 38%
(b) 40%
(c) 42%
(d) 44%
(e) 46%

Q7. If there have been a profit of 18% on Videocon washing machine instead of 18% loss, then the new S.P. is how much more than the original S.P. ?
(a) 4439
(b) 4429
(c) 4427
(d) 4437
(e) None of these

Q8. Profit percentage on Godrej washing machine is what percent more/less than profit percentage on LG washing machine?
(a) 50% more
(b)150% more
(c) 250% more
(d) 50% less
(e) 150% less

Q9. What is the ratio between loss percentage of Whirlpool washing machine to loss percentage of Samsung washing machine ?
(a) 2 : 3
(b) 3 : 2
(c) 3 : 5
(d) 2 : 5

(e) None of these

Q10. What is the overall profit/loss percentage? (approximate)
(a) 2.1% profit
(b) 3.1% profit
(c) 4.1% profit
(d) 3.1% loss
(e) 2.1% loss

Directions (Q.11-15): In following questions two equations are given. Solve the equations and give answer
(a) if x<y
(b) if x>y
(c) if x≤y
(d) if x≥y
(e) if x=y or no relation can be established

Solutions

S1. Ans.(c)
Sol.
No. of qualified candidates in 2015
= 64 × 9 = 576
∵no.of males=576-176=400
∴Required Ratio=400∶176=25∶11

S2. Ans.(d)
Sol.
No. of appeared candidates in 2016
=140/100×700 = 980
Required no. of candidates = 25/100×980= 245

S3. Ans.(c)
Sol.
Let appeared candidates in 2012 = 500
∴ Let qualified candidates in 2012 = 400
∴ No. of female qualified in 2012 =3/8×400=150
∴Required %=150/500×100=30%

S4. Ans.(d)
Sol.
Let no. of males qualified in 2014 = 9x
∴ No. of females qualified in 2014 = 5x
∴9x-5x=72
x = 18
∴No.of candidates qualifed in 2014=14x=14×18=252

∴Required no.of candidates=252/42×100 = 600

S5. Ans.(b)
Sol. let candidate who qualified in 2011 = x
Candidate who qualified in 2013 = 480 ×0.6=288
X = 498-288=210
Required percent = 210/7 = 30%

S10. Ans.(b)
Sol.
Overall cost price of all washing machines together =9375+18750+12325+10385+4050+14360=69245
Overall selling price of all washing machines together =7968.75+21375+10106.5+14019.75+5022+12924=71416
Profit percentage =(71416-69245)/69245×100≈3.1% profit

Directions (Q.1- 5): 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.

	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

Q1. 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

Q2. 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%

Q3. 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

Batsman	No. of matches played	Average runs scored	Total balls faced	Strike rate
Ankit	8	—	—	129.6
Bikas	20	81	—	—
Cheeru	—	38	400	114
Dheeru	—	—	—	72
Eeshan	28	55	1280	—
Farhan	—	—	—	66

Note:

i) Strike rate = $\frac{\text{Total runs scored}}{\text{Total balls faced}} \times 100$

ii) All given batsmen bat in all the given matches played by them.

Q4. 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

Q5. 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%

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

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

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

S4. Ans.(c)
Sol.
By options
Let right Questions = 59
∴ marks = $92 - \frac{1}{4}(92 - 59) = 50.75$

S5. Ans.(e)
Sol.
Required % = $\frac{70.5+72+53+27.25+53.50}{500} \times 100 = 55.25\%$

Study the following data related to the performance of 6 batsmen in a tournament.

Q11. The respective ratio between the total number of balls faced by Dheeru and that of Farhan in the tournament is 3 : 4. The total number of runs scored by Farhan in the tournament is what percent more than the total runs scored by Dheeru in the tournament?

(a) $33\frac{1}{3}\%$

(b) $22\frac{2}{9}\%$

(c) $22\frac{1}{9}\%$

(d) 22%

(e) None of these

Q12. If the runs scored by Eeshan in Last 3 matches of the tournament are not considered, his average runs scored in the tournament decreased by 9. If the runs scored Eeshan in 26th and 27th match are below 128 and no two scores among these 3 scores are equal, then what are the minimum possible runs scored by Eeshan in the 28th match?
(a) 133
(b) 135
(c) 137
(d) 140
(e) None of these

Q13. In the tournament, the total number of balls faced by Ankit is 74 less than the total number of runs scored by him. What is the average run scored by Ankit in the tournament?
(a) 42.5
(b) 40
(c) 41.8
(d) 40.5
(e) None of these

Q14. In the tournament Cheeru and Dheeru played same number of matches. Dheeru scored 24 runs more than that scored by Farhanwhen Farhan faced equal number of balls which was faced by Cheeru. Find the difference in the total runs scored and total ball faced by Dheeru.
(a) 118
(b) 112

(c) 122
(d) 108
(e) None of these

Q15. If the average number of the match played by all players is 19, and the maximum possible runs scored by Farhan is 3 times the match played by him when he faced a total number of balls less than 151, then find the minimum possible matches played by Dheeru.
(a) 12
(b) 10
(c) 13
(d) 8
(e) None of these

S11. Ans.(b)
Sol.

$$\text{Runs scored by Dheeru} = \frac{72 \times 3x}{100} = 2.16x$$

$$\text{Runs scored by Farhan} = \frac{66 \times 4x}{100} = 2.64x$$

$$\therefore \text{Required percentage} = \frac{0.48x}{2.16x} \times 100 = 22\frac{2}{9}\%$$

S12. Ans.(c)
Sol.
Total runs scored by Eeshan = 28 × 55 = 1540
If last 3 matches are not considered, then his total runs = 25 × 46 = 1150
Maximum possible runs in 26th and 27th match is 126 and 127.
∴ Minimum possible run in 28th match = 1540 – 1150 – 126 – 127 = 137

S13. Ans.(d)
Sol.
Let total runs scored by x
∴ total balls faced = $x - 74$
So, $129.6 = \frac{x}{x-74} \times 100$
$\Rightarrow 29.6x = 9590.4$
$\Rightarrow x = 324$
∴ Required average runs scored $= \frac{324}{8} = 40.5$

S14. Ans.(b)
Sol.

$$\text{Total runs scored by Cheeru} = \frac{114 \times 400}{100} = 456$$

$$\therefore \text{Total matches played} = \frac{456}{38} = 12$$

$$\text{Runs scored by Farhan} = \frac{66 \times 400}{100} = 264$$

$$\text{So, Total balls faced by Dheeru} = \frac{264+24}{72} \times 100 = 400$$

So, required difference = 400 – 288 = 112

S15. Ans.(c)
Sol.
Number of matches played by Dheeru & Farhan together = 19 × 6 – (8 + 20 + 12 + 28)
= 46
Max. Possible runs of Farhan $= \frac{66 \times 150}{100} = 99$
∴ Matches played by him $= \frac{99}{3} = 33$
So, required min. no. of matches played by Dheeru = 46 – 33 = 13

A team of 5 players participated in a tournament and played four matches (1 to 4). The following table gives partial information about their individual scores and the total runs scored by the team in each match.

Each column has two values missing. These are the runs scored by the two lowest scorers in that match. None of the two missing values is more than 10% of the total runs scored in that match.

		Match-1	Match-2	Match-3	Match-4
	Ajinkya		100		53
	Pandya	88	65		52
Runs scored by player	Cheteswar			110	
	Dhawan	72	75	20	56
	Virat	60		78	
	Total	270	300	240	200

Q6. What is the maximum possible percentage contribution of Ajinkya in the total runs scored in the four matches (approximately)?
(a) 20%
(b) 22%
(c) 17%
(d) 23%
(e) Cannot be determined

S6. Ans. (a)
Sol. Maximum possible runs scored by Ajinkya in Match-1 = 27
Maximum possible runs scored by Ajinkya in Match-3 = 19 (less than 20)
Maximum possible percentage contribution:
$$\frac{27 + 100 + 19 + 53}{270 + 300 + 240 + 200} \times 100\% = \frac{199}{1010} \times 100\% = 19.7\%$$
= 20% approx.

Q7. What is the maximum possible percentage contribution of Virat in the total runs scored in the four matches?
(a) 18%
(b) 19.9%
(c) 18.6%
(d) 20.2%
(e) Cannot be determined

S7. Ans. (c)
Sol.
Maximum possible runs scored by Virat in Match-2 = 30
Maximum possible runs scored by Virat in Match-4 = 20
Maximum possible percentage contribution:
$$\frac{60+30+78+20}{270+300+240+200} \times 100\%$$
$$= \frac{188}{1010} \times 100\% = 18.6\%$$

Q8. If the absolute difference between the total runs scored by Ajinkya and Cheteshwar in the Four matches is minimum possible then what is the ratio of Ajinkya and Cheteshwar's total runs scored by them in the four matches.
(a) 187:189
(b) 189:187
(c) 183:187
(d) 189:188
(e) Cannot be determined

S8. Ans. (b)
Sol.
Maximum possible total runs scored by Cheteshwar in the four matches
= 27 + 30 + 110 + 20 = 187.
total runs scored by Ajinkya in the four matches is in the range of 189 to 199
Hence,
In such a case minimum possible
total runs scored by Ajinkya in the four matches = 23 + 100 + 13 + 53 = 189
Difference = 189 – 187 = 2 (minimum possible)
So Required ratio is 189:187

Q9.If the absolute difference between the total runs scored by Ajinkya and Cheteshwar in the four matches is minimum possible then what is the absolute difference between total runs scored by Pandya and Virat in the four matches?
(a) 32
(b) 37
(c) 35
(d) 27
(e) Cannot be determined

S9. Ans. (b)
Sol.
Maximum possible total runs scored by Cheteshwar in the four matches
= 27 + 30 + 110 + 20 = 187.
In such a case minimum possible total runs scored by Ajinkya in the four m
= 23 + 100 + 13 + 53 = 189.
Difference = 189 – 187 = 2 (minimum possible)

Subsequently total runs scored by Pandya in the four matches
= 88 + 65 + 19 + 52 = 224.
Also, total runs scored by Virat in the four matches
= 60 + 30 + 78 + 19 = 187
Absolute difference = 224 – 187 = 37

Q10. The players are ranked 1 to 5 on the basis of the total runs scored by them in the four matches, with the highest scorer getting Rank 1. If it is known that no two players scored the same number of total runs, how many players are there whose ranks can be exactly determined?
(a) 0
(b) 1
(c) 3
(d) 5
(e) Cannot be determined

S10 . Ans.(c)
Sol.
Individual ranges for total score:
Ajinkya-> 189-199
Pandya-> 218-224
Cheteshwar-> 182-187
Dhawan-> 223
Virat-> 187-188
Least total will be of Cheteshwar (Rank 5)
2nd least will be Virat (Rank 4)
Rank 3 must be of Ajinkya
It is not possible to determine the exact ranks of Pandya and Dhawan

Table shows the 5 colony and total population and percentage of males, females and children in each colony in year 2016. Some data are missing, find the missing data to answer the given questions.

Colony	Total population	Percentage of males	Percentage of females	Percentage of children
A	2400	25%	—	—
B	—	—	40%	20%
C	—	50%	20%	—
D	800	—	—	16%
E	—	—	24%	36%

Note : Don't treat children as male or female. Treat them separately.

Q11.If the ratio of population of females and children in colony A in year 2016 is 3 : 7, and female in colony A in year 2017 is increased by 20% from that of year 2016. Then find the total number of males and children in colony A in year 2017 so that overall population in year 2017 is same as in year 2016 ?
(a) 1752
(b) 1852
(c) 2752
(d) 3200
(e) 1527

Q12.If number of children in colony C in year 2016 is 180 and ratio of male and females in colony D in year 2016 is 1 : 2. Then find the difference of males in colony C and colony D?
(a) 96
(b) 86
(c) 76
(d) 55
(e) 67

Q13.If total population of colony B and colony C together in year 2016 is 25% more than the total population of colony A in year 2016 and ratio of total population of colony B and colony C in year 2016 is 2 : 3. Then find the ratio of males in colony B to children in colony C in year 2016 ?
(a) 9 : 8
(b) 8 : 9
(c) 2 : 3
(d) 3 : 5
(e) 3 : 2

Q14.If ratio of males of colony D in year 2016 to the females in colony A in year 2016 is 2 : 5 and population of children in colony A is increased by 20% in year 2017 from year 2016. Then find the total population of children in year 2017 in colony A ?
(a) 2000
(b) 1200
(c) 1500
(d) cannot be determined
(e) None of these

Q15.If ratio of total population of colony C to colony E in year 2016 is 5 : 4. Then number of males in colony E in year 2016 is what percent more or less than the number of children in colony C in year 2016 ?
(a) 5.67%
(b) 12%
(c) 10%
(d) 3.334%
(e) 6.67%

S11. Ans.(a)
Sol.
Let population of females and children in colony A be 3x and 7x respectively.

$10x = \frac{75}{100} \times 2400$

$x = 180$

No. of females in colony A in year 2017 $= 540 \times \frac{121}{100}$

$= 648$

Required no. of males and children together in colony A in 2017 $= 2400 - 648$

$= 1752$

S12. Ans.(c)
Sol.
Total no. of males in colony C $= \frac{50}{100} \times \frac{100}{30} \times 180$

$= 300$

No. of males in colony D $= \frac{1}{3} \times \frac{84}{100} \times 800$

$= 224$

Required difference $= 300 - 224$

$= 76$

S13. Ans.(b)
Sol.
Total population of males in colony B

$= \frac{40}{100} \times \frac{2}{5} \times \frac{125}{100} \times 2400$

$= 480$

And that of children in colony C $= \frac{36}{100} \times \frac{3}{5} \times \frac{125}{100} \times 2400$

$= 540$

Required ratio $= \frac{480}{540} = 8 : 9$

S14. Ans.(d)
Sol.
Let males in colony D = 2x
Females in colony A = 5x
Let population of children in colony A = a%

∴ No. of children in colony A in 2017 $= \frac{6a}{5}$%

From here we cannot find the required answer

S15. Ans.(e)
Sol.
Let total population of colony C = 5x
& that of colony E = 4x

Required Percent $= \frac{0.4 \times 4x - 0.3 \times 5x}{0.3 \times 5x} \times 100$

$= \frac{100}{15}$% = 6.67%

Direction (1-5): The following table shows the profit percentage earned by five different stores on Haldiram's different products. Study the table carefully to answer the following questions.
Note: In table, some data are missing. Find these data if they are required in any question and then proceed.

Products	Different stores which sell Haldiram's products				
	Hira Sweets	Nathu sweets	The Royal Sweets	Jagatram Sweets	Laxmi Sweets
Soan Papdi	40%	–	–	25%	20%
Orange Burfee	–	$33\frac{1}{3}$%	–	20%	$16\frac{2}{3}$%
Kaju Laddu	25%	–	10%	24%	30%
Punjabi Tadka	20%	30%	–	–	15%
Kaju Butter	–	40%	20%	–	25%

Q1. If cost price of Soan papdi at Hira sweets is 25% more than cost price of Soan papdi at Nathu sweets. Find profit earned by Nathu sweets on Soan Papdi if selling price of soan Papdi at Nathu sweets is 80% of that of Hira sweets
(a) 35%
(b) 40%
(c) 45%
(d) 30%
(e) 24%

Q2. If average of profit percentage earned on Kaju Laddu by all the five stores is 23%. Find the percentage profit earned by Nathu sweets on kaju Laddu.
(a) 16%
(b) 36%
(c) 26%
(d) 28%
(e) 32%

Q3. If ratio of cost price of Kaju Butter by The Royal sweet to Laxmi sweets is 3:5. Find the ratio of selling price of kaju Butter by The Royal sweet to Laxmi sweets.
(a) 25 : 49
(b) 9 : 11
(c) 77 : 125

(d) 72 : 125

(e) 125 : 77

S4. Ans. (a)

Sol.

Let C.P of kaju Laddu for Hira sweets= $2x$

So, C.P of Punjabi tadka = $5x$

Total CP of both items for Hira Sweets= $2x + 5x = 7x$

S.P. of Kaju Laddu for Hira sweets = $2x \times \frac{125}{100} = 2.5x$

S.P. of Punjabi tadka = $5x \times \frac{120}{100} = 6x$

Total S.P. of both items by Hira Sweets = $6x + 2.5x = 8.5x$

Required Profit % = $\frac{8.5x - 7x}{7x} \times 100 = 21\frac{3}{7}$%

Q4. If ratio of cost price of Kaju Laddu to Punjabi tadka for Hira Sweets are 2:5. Find profit percent on Kaju laddu and Punjabi Tadka together by Hira Sweets.

(a) $21\frac{3}{7}$%

(b) $11\frac{2}{9}$%

(c) 25%

(d) 27%

(e) $33\frac{1}{3}$%

Q5. If cost price of one kg of orange Burfee by Nathu sweets, Jagat Ram sweets and Laxmi sweets was Rs. 450, 480 and 360 respectively the find total profit earned by these three stores together on Orange Burfee (in Rs.)

(a) Rs. 603

(b) Rs. 206

(c) Rs. 306

(d) Rs. 406

(e) Rs. 340

S5. Ans. (c)

Sol.

Required total profit = $450 \times \frac{100}{300} + 480 \times \frac{20}{100} + 360 \times \frac{50}{300}$

= 150 + 96 + 60

= 306 rupees

Solutions (1-5):

S1. Ans. (b)

Sol.

Let C.P. of soan Papdi at Hira sweets is Rs. 100

∴ S.P. of soan Papdi at Hira sweets = Rs. 140

∴ C.P. of soan Papdi at Nathu sweets = $100 \times \frac{100}{125} = 80$

S.P. of soan Papdi at Nathu sweets

= $140 \times \frac{80}{100} = 112$

∴ Required percentage profit = $\frac{112 - 80}{80} \times 100 = 40\%$

S2. Ans. (c)

Sol.

Let profit percentage of Nathu sweets on kaju Laddu is x%

∴ x + 25 + 10 + 24 + 30 = 5 × 23

⇒ x = 26%

S3. Ans. (d)

Sol.

Required ratio of selling prices

= $\frac{3 \times \frac{120}{100}}{5 \times \frac{125}{100}} = \frac{72}{125}$