Question	Answer	Explanation
1	С	Let b stand for boy and g for girl. The sample space of the experiment is $S = \{(g, g), (g, b), (b, g), (b, b)\}$ Let E and F denote the following events: $E: \text{`both the children are girls'}$ F: `at least one of the child is a girl' $Then E = \{(g,g)\} \text{ and } F = \{(g,g), (g,b), (b,g)\}$ Now E n F = \{(g,g)\} $Thus P(F) = 3/4$ and P (E n F) = 1/4 $Therefore P(E F) = P(E n F)/P(F) = (1/4)/(3/4) = 1/3$
2	D	Here, $S = \{1, 2, 3, 4,, 19, 20\}$. Let $E =$ event of getting a multiple of 3 or $5 = \{3, 6, 9, 12, 15, 18, 5, 10, 20\}$. P(E) = n(E)/n(S) = 9/20.
3	D	Let number of notes of each denomination be x. Then $x + 5x + 10x = 480$ 16x = 480 x = 30. Hence, total number of notes = $3x = 90$.
4	D	1344*34/14*4 - 35% of 540 - 45% of 1320 = x 816 - 189 - 594 = 33
5	В	Correct answer is Rs. 2400
6	С	Correct answer is $\cos \theta > \cos 2\theta$
7	С	$(x + 5)^{\circ} + (2x - 3)^{\circ} + (3x + 4)^{\circ} = 180^{\circ}$ (Sum of all angles in triangle is 180°) $\Rightarrow 6x + 6^{\circ} = 180^{\circ}$ $\Rightarrow (x + 1) = 30^{\circ}$ $\Rightarrow x = 29^{\circ}$
8	В	Correct answer is Rs. 2315.25
9	A	The interest is calculated simply and then it will have a rise of 15% in 1^{st} case and 16% in 2^{nd} case. Difference = 1% on $500 = Rs$. 5
10	A	Correct answer is Rs. 331
11	С	Then the amount paid by Tushar to the money - lender to clear his debt was Rs. 12720

12	С	The sum alloted at present to each son is Rs. 9000, Rs. 9750
13	В	Let the rest workers = x Now, According to question, $(7 + x) \times 8000 = 12000 \times 7 + 6000x$ 56000 + 8000x = 84000 + 6000x 2000x = 28000 x = 14 So total number of worker = 14 + 7 = 21
14	A	Required sale = Rs[$(6500 \times 6) - 34009$] = Rs $(39000 - 34009)$ = Rs 4991 .
15	D	Average of 20 numbers = 0 ∴ Sum of 20 numbers (0 x 20) = 0 It is quite possible that 19 of these numbers may be positive and if their sum is a then 20th number is (-a)
16	В	Sum of the present ages of husband, wife and child = (27 x 3 + 3 x 3) years = 90 years Sum of the present ages of wife and child = (20 x 2 + 5 x 2) years = 50 years ∴ Husband's present age = (90 - 50) years = 40 years
17	В	Let the total number of workers be x. Then, $\Rightarrow 8000x = (12000 \times 7) + 6000(x - 7)$ $\Rightarrow 2000x = 42000$ $\Rightarrow x = 21$
18	В	Required area =area of the semicircle –area of the right-angled triangle So 1/2 *22/7*7*7-1/2 *7*7=77-49=28 sq cm
19	D	x+x+x×x100=2x+x2100=25+25+25×25100=56.25%
20	D	Given, a cube of side 5 m is painted on all its faces and is sliced into 1 Cm3 cubes. Then, form figure, it is clear that there are 9 cubes available on face As there are 6 faces, so the total number of smaller cubes = $6 \times 9 = 54$.
21	С	Along one edge, the number of small cubes that can be $cut = 100/10 = 10$ Along each edge 10 cubes can be cut. (Along length, breadth and height). Total number of small cubes that can be $cut = 10 * 10 * 10 = 1000$
22	D	Initial speed = 80km/hr Total distance = 80 * 10 = 800km new speed = 800/4 = 200km/hr

		Increase in speed = 200 - 80 = 120km/hr
23	A	In the same time, they cover 110 km and 90 km respectively. For the same time, speed and distance is inversely proportional. So ratio of their speed = 110:90 = 11:9
24	D	New speed =6/7 of usual speed Speed and time are inversely proportional. Hence new time =7/6 of usual time Hence, 7/6 of usual time - usual time =12 minutes ⇒1/6 of usual time =12 minutes Therefore, usual time =12×6=72 minutes=1 hour 12 minutes
25	В	According to the question, Average of 25 observations = 13 Sum of 25 observations = 13 × 25 = 325 One observation entered wrongly 48 instead of 73. ∴ Difference = 73 - 48 = 25 (less) ∴ Actual sum of 25 observation = 325 + 25 = 350 Actual average = 350/25= 14
26	D	Checking the divisibility of all the four given numbers by 7, we see that only 10080 is divisible by 7. Further, 80 is divisible by 4. 1+0+0+8+0=9 is divisible by 3 and the units' digit of 10080 being 0, it is divisible by 5, too.
27	В	From 1- 99 digit 1 is used 20 times. And From 100 - 199, 1 is used 120 times So, from 1 to 199, 1 is used, 20 + 120 = 140 times We need 136.So leave 199, 198, 197 and 196 Required pages = 195
28	В	Each of the two periods of 8 hours and 11 hours consists of two component time periods, one upstream at a speed that is the difference in boat speed and stream speed, and the other downstream at a speed that is a sum of boat speed and stream speed
29	С	Let A invested Rs.76000 for 12 months and B invested Rs.57000 for x months Then $(7600\times12)/(5700\times x)=1/2$ $\Rightarrow x=(76\times12)/(57\times2)$ $\Rightarrow x=8$
30	С	Correct answer is Rs. 277.20
31	В	Ratio capital of Anil, mukesh and Ritesh. = (20,000 x 4 + 14000 x 8): (20,000 x 4 + 12000 x 8): (20,000 x 4 + 26000 x 8) = 192000: 176000: 288000 Anil share = (65600 x 192 / 656) = 19200 Mukesh share = (65600 x 176 / 656) = 17600

		Ritesh share = $(65600 \times 288 / 656) = 28800/-$.
32	D	Length of rectangle = $4x = 4(9) = 36$ m. Breadth of rectangle = $3x = 3(9) = 27$ m. Hence, The perimeter of rectangle is 126 m.
33	В	Volume of box = $1 \times b \times h$
		From the diagram
		l=48−2(8) : Two square formed side
		=32m
		b=36-2(8)
		=20m
		Also h=8m from question
		∴ Volume =32×20×8
		=5120m3
34	A	Given $a1/a2 = 4/3$, $h1/h2 = 3/4$ also, we know that $a1/a2 = (1/2 \times b1 \times h1)/(1/2 \times b2 \times h2)$
		on substituting in above equation, we get b1/b2= 16/9
		therefore b1:b2= 16:9
35	С	Correct answer is 21 : 66 : 92
36	D	Given; 3dog = 4 cat
		Or,
		dogcat=4/3
		Let cat's 1 leap = 3 meter and dogs 1 leap = 4 meter
		Then, ratio of speed of cat and dog = $3 \times 5 : 4 \times 4$
		= 15:16
37	В	Quantity of milk and water in the 36 liter mixture
		27 liter milk and 9 liter water
		Now, 15 liters milk is added then milk becomes 42 liters Now, ratio = 42 : 9 = 14 : 3
38	С	Formula = Third proportional = $(b \times b)/a$
		A = 9 and $B = 12$
		$(12 \times 12)/9 = 144/9 = 16$

39	D	Let the number of the blocks A,B,C,D be $4x$, $7x$, $3x$ and $1x$ respectively => $4x = 3x + 50$
		$\Rightarrow x = 50.$
		So the number of 'B' blocks is $7*50 = 350$.
40	В	Let $C = x$. Then $A = (x-20)$ and $B = (x-40)$.
		x + x - 20 + x - 40 = 120 Or x = 60.
		A:B:C = 40:20:60 = 2:1:3.
41		B's share = Rs. $120*(1/6)$ = Rs. 20
41	В	Tap C will fill the cistern in 24 minutes.
42	В	Total time taken to fill the tank =(39+7)=46 min.
43	В	Correct answer is Rs. 400
44	A	Required number = H.C.F. of (1657 - 6) and (2037 - 5)
		= H.C.F. of 1651 and $2032 = 127$.
45	В	Required number = $(L.C.M. of 12, 15, 20, 54) + 8 = 540 + 8 = 548.$
46	D	L.C.M. of 252, 308 and 198 = 2772.
		So, A, B and C will again meet at the starting point in 2772 sec. i.e., 46
		min. 12 sec.
47	Α.	Detic of we are of A. D. $C = (6 \times 5) \cdot (4 \times 6) \cdot (0 \times 4) = 20 \cdot 24 \cdot 26 = 5 \cdot 4 \cdot 6$
47	A	Ratio of wages of A, B, C = (6×5) : (4×6) : (9×4) =30:24:36=5:4:6
		A's share = Rs. $(1800 \times 5/15)$ =Rs. 600
48	D	Correct answer is 8
49	В	Man's speed with the current = 15 km/hr
		=> speed of the man + speed of the current = 15 km/hr
		speed of the current is 2.5 km/hr
		Hence, speed of the man = $15 - 2.5 = 12.5$ km/hr
		man's speed against the current = speed of the man - speed of the current
50	D	= 12.5 - 2.5 = 10 km/hr
50	D	Correct answer is 16 km/hr
51	D	Start sixted by A to D = (800, 725) = 75 m
31	D	Start given by A to B = $(800 - 725)$ m = 75 m
52	D	S
52	В	Score of $A = 100$ points
		Score of B = 65 points \therefore A can give (100 - 65) = 35 points to B.
53	C	Clearly, B covers 18 m in 9 s.
		$\therefore \text{ B's time over the course} = 9/18 \times 1000 = 500 \text{ s}$
		$\therefore \text{ A' s time over the course} = (500 - 9) = 491 \text{ s}$

54	D	Correct answer is 84
55	С	Correct answer is 10
56	A	Correct answer is 31 litres
57	С	Each dozen carries cost 75 rupees and are sold for 12 x 15 = 180 rupees profit = SP-CP profit = 180-75 = 105 rupees
58	С	Price after 10% discount = 10000 - 10 % of 10000 = 10000 - 0.1 x 10000 = 9000 Price after another 20% discount = 9000 - 20 % of 9000 = 7200 Price after 10% of transportation charges = 7200 + 7200 x 0.1 = 7920 Price after 10% of profit = 7920 + 7920 x 0.1 = 8712 ∴ Selling price = 8712
59	D	Total C.P. of 200 kg of sugar = Rs. $(80 \times 6.75 + 120 \times 8)$ = Rs. $(500 + 960)$ = Rs. 1460 C.P. of 1 kg = Rs. 1460 / 200 = Rs. 7.30 Gain required = 20% \therefore S.P. of 1 kg = (120% of Rs. 7.30) = Rs. $(120/100) \times 7.30$ = Rs. 8.76 per kg
60	В	A = ₹ 500 and B = ₹ 400
61	A	C get ₹ 300
62	С	Correct answer is mean and median
63	С	Milk = $\frac{2}{3} \times 75 = 50$ litres Water = $\frac{1}{3} \times 75 = 25$ litres Let x litres of water be added. Then, $\frac{50}{x + 25} = \frac{1}{2}$

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76	D	S.I. = Rs. (600 x 5 x 2)/100 = Rs.60 C.I.= Rs. [600 x (1 + 5/100)2 - 600] = Rs. 61.50
		Required Difference = Rs. $(61.50 - 60)$ = Rs. 1.50
77	В	Following the information given in the question, we get
		Tonowing the information given in the question, we get
		$5 \text{ sons get } 15000 \times 5 = \text{Rs. } 75000$
		g and a grant of the state of t
		$\therefore 1 \text{ daughter gets } 15000 \div 2 = \text{Rs. } 7500$
		: Wife gets = $15000 \times 2 = \text{Rs.} 30000$
		Total amount = $75000 + 7500 + 30000 = \text{Rs. } 112500/-$
78	A	Correct answer is 5
79	A	Here, the weight of water in 400 kg of dry fruits is 50 kg.
		So, the weight of fruits alone = $(400 - 50) \text{ kg} = 350 \text{ Kg}$
		Home Datio of vector in feach facility to the day facil = 7.2
		Here, Ratio of water in fresh fruits to the dry fruit = 7:2
		\Rightarrow 2 = 50 Kg
		7 2 30 Ng
		$\therefore 1 = 25 \text{ kg}$
		So, the water in fresh fruits = $7 \times 25 = 175 \text{ kg}$
80	D	$\sin 2 10 + \sin 2 80 + \sin 2 20 + \sin 2 70 + \sin 2 30 + \sin 2 60 + \sin 2 40 + \sin 2$
		50 equation (A)
		We know that $\sin 2x + \sin 2(90 - x) = 1$
		Therefore equation A becomes
		Therefore equation A becomes
		1+1+1+1=4
81	A	1 + 1 + 1 + 1 = 4 Correct answer is $x = 60^{\circ}$, $y = 60^{\circ}$, $z = 60^{\circ}$
82	С	Correct answer is – 1
02		
83	Α	Correct answer is 10
83	A	Correct answer is 10
84	D	Correct answer is 5%
85	С	Let the principal be x , Amount = $2x$, then
		SI = (Amount - Principal) = 2x - x = x

		Time = $SI \times 100$ Principal × Rate = $x \times 100$ = 50 = 25 $x \times 126$ 3 = 8 years 4 months
86	В	The time taken by the slower train to cross the faster train in seconds is: 48 sec
87	С	$36\pi x^2$
88	С	Correct answer is 5
89	В	Correct answer is (-1, 8)
90	D	M1 T1 W2 = M2 T2 W1
91	В	Total number of employees in all the departments = 840 + 220 + 900 + 360 + 450 + 540 = 3310
92	С	Correct answer is 23:22
93	D	None of the answer is correct
94	A	Correct answer is 311 : 269
95	D	Correct answer is 164%
96	С	Correct answer is 9
97	D	None of these
98	A	Correct answer is 19 minute
99	A	Correct answer is 9
100	С	Correct answer is 20 litre
101	D	The given series is the pattern x1, x2, x3, x4,
102	В	The given series is in the pattern $(22 - 1)$, $(42 - 1)$,

103	В	Correct answer is CPNCBZ
104	D	E B B B B B B B B B B B B B B B B B B B
105	С	
106	A	
107	С	
108	D	
109	A	Total distance travelled by Anaya is 25m
110	В	25 m 25 m 25 m 25 m 20 m 25 m
111	В	We know that a number is divisible by 3 if the sum of its digits is also divisible by 3. Following this, we can observe that the numbers '174', '240', '462' and '570' are divisible by 3.
112	В	Correct answer is 12
113	В	Correct answer is 5
114	В	Correct answer is 241
115	В	Correct answer is 645
116	A	According to question, Two years ago, the ratio of Ram's and Mohan's age was $3:2$, then (7Y-2)/(5Y-2) = 3/2 $\Rightarrow (7Y-2) \times 2 = 3 \times (5Y-2)$ $\Rightarrow 14Y-4=15Y-6$ $\therefore Y=2$

117	С	Given expression, $(50 \times 2) \times (28 \times 4)$ After interchanging the letters with symbols, we get $(50 \div 2) + (28 \times 4) = 25 + 112 = 137$
118	A	$9 \div 3 \times 3 - 3 = 6 \div 3 \times 3 - 3 = 6$ $\Rightarrow 9 - 3 = 6 \Rightarrow 6 = 6$
119	A	Meaningful order of the given words is Farmer, Seed, Cultivation, Food i.e., (i), (ii), (iv), (iii)
120	D	A > D > G C > E > H D > B > F G > C F > G Combining these, we get $A > D > B > F > G > C > E > H$ is the correct answer.
121	С	The difference between the numbers increases by 1.
122	В	The series is + 123, + (123 x 2), +(123 x 3), + (123 x 4),
123	D	The series is; + 3^3, + 5^3, + 7^3, + 9^3, + 11^3, + 13^3,
124	С	Either son or daughter
125	В	Correct answer is Sister
126	С	Correct answer is brother
127	В	From (1) and (2) it is clear that Suraj birthday falls after 29 th October and before 31 st October. Hence, Suraj birthday falls on 30 th October.
128	С	Correct answer is UEKGPEG
129	D	Correct answer is B
130	С	'Cream' is made from 'Milk' Likewise, 'Pottery' is made from 'Clay'.
131	С	' Nest' is made up of 'Straws' and 'Cloth' is made up of 'Threads'.
132	A	'Latter' is a part of 'Word' and in the same way'Page' is a part of 'Book'.
133	C	Correct answer is East

Answer key of GS-IV (Set-6)

134	D	If A is a beggar, then A is not rich.
135	D	Correct answer is 4
136	В	Correct answer is 16
137	A	Correct answer is 6.5 kms
138	С	Correct answer is C
139	С	Explanation: According to the question $+ \leftrightarrow -$; $8 \leftrightarrow 7$ Apply these transformations to all the equations
140	D	Correct answer is 4
141	С	Correct answer is 3
142	A	Correct answer is 1 only
143	С	Correct answer is 3
144	В	Only assumption II is implicit
145	С	Correct answer is 3
146	В	Correct answer is 2
147	С	Correct ans is 3
148	A	Only Statement 1 and 3 are correct
149	A	Correct answer is 1
150	С	Correct answer is 3
151	D	Only statement 3 and 4 Correct
152	A	Only assumption I is implicit

153	A	Because the letters are the same, concentrate on the number series, which is a simple 2, 3, 4, 5, 6 series, and follows each letter in order.
154	В	Correct answer is North
155	С	Since K and P forms the diagonal of the right angle triangle KQP the distance between KP is 1.41 km. Hence, option C is the correct answer.
156	В	 I. matches of first player with other 5 players II. matches of second player with 4 players other than the first player III. matches of third player with 3 players other than the first player and second player. IV. matches of fourth player with 2 players other than the first player, second player and third player. V. matches of fifth player with 1 player other than the first player, second player, third player and fourth player. So total matches will be 5+4+3+2+1 = 15
157	D	If we read given question carefully, we get, B+8=C(i) A-8=C-3(ii) A+6=2D(iii) B+D=50(iv) Putting $C=A$ -5 from (ii) into (i), we have : B+8=A-5 or $A-B=13$ (v) Putting $D=50-B$ from (iv) and (iii), we have : A+6=100-2B or $A+2B=94$ (vi)
158	A	Solving (v) and (vi), we get B = 27 and A = 40 Since R is facing West and P is the partner of R P is facing East. Also, S is to the right of R, so S will be facing South and Q is the partner of S. Therefore, Q will face North. Hence, option A is the correct answer.
159	D	A bull bears horns on its head. Similarly, a stag bears antlers on its head.
160	A	All other pairs contain squares and cube of the same number. E.g. 36 = 62 & 216 = 63.
161	A	L.C.M. of 21, 36, $66 = 2772$. Now, $2772 = 2 \times 2 \times 3 \times 3 \times 7 \times 11$. To make it a perfect square, it must be multiplied by 7×11 . So, required number = $22 \times 32 \times 72 \times 112 = 213444$.
162	A	Seven pieces consist of 6 smaller equal pieces and one half cake piece. Weight of each small piece = 20 gm So, total weight of the cake = $2(20 * 6) = 240 \text{ gm}$

163	A	Explanation: A rectangle has four sides so it is a quadrilateral. All the for sides are not equal as two are equal and other two are equal.
164	A	3-sided figure is inside 4-sided and in the next step it is reversed. Similarly, 4-sided figure is inside 5-sided figure and vice versa. Thus, following the same order, the answer figure should be figure 1.
165	В	Time from 5 am On a day to 3 pm on 8th day = 178 hours .Now 23 hrs 4 min. of this clock = 24 hours of correct clock 365/15 hrs of this clock = 24 hours of correct clock 178 hrs of this clock = (24 × 15/356 × 89) hrs of correct clock = 180 hrs of correct clock. So, the correct time is 5 pm.
166	A	A + B – C means A is the son of B who is the wife of C i.e. C is the father of A.
167	A	Correct answer is South-East
168	С	Correct answer is POHTLU
169	A	Mit pee sik hee
170	В	Correct answer is Daughter
171	C	In all other numbers, sum of digits is 29, while in option C, it is 20. 6+4+8+2=20 6+7+8+8=29 6+8+7+8=29 9+8+4+8=29
172	С	In all other pairs, the words are antonyms of each other.
173	С	Correct answer is This is a good book.
174	A	Correct answer is 2
175	В	The year 1979 being an ordinary year, it has 1 odd day. So, the day on 12th January 1980 is one day beyond on the day on 12th January 1979. But, January 12, 1980 being Saturday. ∴ January 12, 1979 was Friday.

Answer key of GS-IV (Set-6)

176	D	Correct answer is 12
177	D	Correct answer is 7/13
178	В	Grandmother is one female, mother is another, wives of four sons are the four females and two daughters of all four sons are eight females. So, in all there are $1+1+4+8=14$ females.
179	A	Correct answer is YKCPGAYLQ
180	D	Correct answer is 5 m
181	С	Correct answer is (c) and (d)
182	В	Correct answer is Lion
183	D	Correct answer is so
184	В	Correct answer is 50
185	A	Brother-in-law
186	D	Can't be determined
187	В	Correct answer is Deepa
188	D	Correct answer is ccfhgi
189	С	ERSPROPER
190	A	Correct answer is 6587
191	В	Correct answer is 22
192	В	Correct answer is 12
193	С	Correct answer is 16
194	D	8 small cubes are not visible at all

Answer key of GS-IV (Set-6)

195	В	Correct answer is in 'B'.
196	В	Correct answer is 346
197	A	Correct answer is 53
198	D	'Abundance' all mean sufficient amount but abundance is used for more than sufficient amount.
199	D	All others can be filled up with something.
200	В	All except mustard are foodgrains, while mustard is an oilseed.