

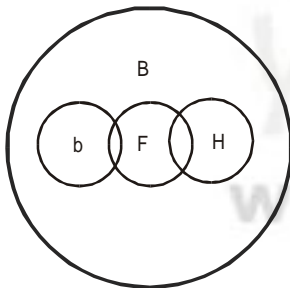
## CET Test – Answer Key

Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.	Q	Ans.
1	4	26	4	51	3	76	1	101	2	126	2	151	3	176	5
2	5	27	1	52	2	77	5	102	2	127	2	152	5	177	4
3	1	28	1	53	4	78	4	103	5	128	4	153	5	178	1
4	1	29	4	54	4	79	3	104	4	129	4	154	4	179	5
5	1	30	2	55	3	80	2	105	2	130	2	155	3	180	3
6	3	31	2	56	5	81	1	106	2	131	5	156	5	181	5
7	2	32	1	57	1	82	2	107	2	132	2	157	2	182	2
8	4	33	3	58	2	83	3	108	5	133	3	158	4	183	3
9	4	34	4	59	3	84	3	109	4	134	3	159	3	184	4
10	1	35	4	60	5	85	3	110	4	135	1	160	3	185	1
11	3	36	4	61	3	86	3	111	3	136	3	161	5	186	1
12	2	37	4	62	1	87	3	112	4	137	1	162	5	187	2
13	3	38	3	63	2	88	1	113	1	138	4	163	5	188	3
14	3	39	2	64	4	89	2	114	4	139	2	164	3	189	4
15	4	40	3	65	2	90	4	115	3	140	4	165	2	190	5
16	1	41	3	66	2	91	1	116	3	141	2	166	2	191	4
17	4	42	4	67	1	92	2	117	2	142	3	167	5	192	5
18	4	43	3	68	4	93	3	118	1	143	1	168	4	193	2
19	2	44	2	69	1	94	4	119	5	144	5	169	3	194	3
20	5	45	1	70	1	95	5	120	4	145	4	170	5	195	2
21	1	46	1	71	3	96	4	121	3	146	5	171	2	196	5
22	3	47	4	72	4	97	4	122	2	147	1	172	3	197	5
23	2	48	5	73	2	98	5	123	1	148	4	173	5	198	1
24	1	49	2	74	5	99	2	124	4	149	3	174	2	199	2
25	3	50	4	75	2	100	2	125	3	150	1	175	4	200	5

### Explanations

1. Since we can fry eggs we can conclude that there must be at least one saucepan that is not made of diamond.  
Hence, to say that NO saucepan is made of diamond is very drastic, though possible.

2. The Venn diagram may be (though not necessarily):



B = Butterfly,

b = butter

F = Fly

H = Helicopter

We do not know the relation between Helicopter and any of the other items.

3. At least those Hindus who are Eskimo's will not be Christians.
4. Those jellyfish that are textbooks will have no centrifugal force.

5. If all X are Y and all Y are Z, then all X are Z.

6. 'With him and his family', because the pronoun 'him' is the object of the preposition 'with'.

7. 'It may ...' is the right usage, as there is only one sentence.

8. '... she felt bad' is the right usage. Badly is the adverb, which means desperately or terribly.

9. 'Sitting' is in present continuous tense, hence thinking should be used in present continuous tense.

10. It should be 'prettiest' as the comparison is in the superlative degree, comparing more than two entities.

11. 60% of C.P. = Rs. 75

$$\therefore \text{C.P.} = 75 \times \frac{100}{60} = \text{Rs. } 125$$

12. 
$$2 + \frac{2}{3 + \frac{2}{3}} = 0.78$$

$$\therefore \text{Required value} = 0.78, 0.39 = 2$$

13. Let x and y be the speeds of A and B respectively.

Then,  $\frac{600}{x} = \frac{600}{y} + 8$  and  $\frac{600}{2x} = \frac{600}{y} - 2$ .

$\therefore y = 50$  km per hour.

14. Length of one side = 5 cm. If  $x$  is the length of the other side then  $10^2 = x^2 + 5^2$  or  $x = 5\sqrt{3}$  cms  
 $\therefore$  Area =  $25\sqrt{3}\text{cm}^2$
15. Let the daughter's present age be  $x$ . Then, mother's present age =  $3x$   
 After 12 years, mothers age =  $3x + 12$  and daughters age =  $x + 12$   
 $3x + 12 = 2(x + 12) \Rightarrow 3x + 12 = 2x + 24$   
 $\Rightarrow x = 12$   
 Hence, daughter's present age = 12 yr.
16. The second argument is an assumption
17. Both the arguments are not directly related to the statement. Hence, both are irrelevant.
18. The first argument is wrong and the second argument is generalised.
19. The first argument is not directly related to the statement. Hence, it is irrelevant.
20. Both the arguments are important and directly related to the statement.
21. 'Whom did ...' is correct as the person being asked to the dance is the object case pronoun (the receiver of action).
22. 'There are no easy answers.'
23. 'And' is redundant here.
24. It should be 'I had rather ...' or 'I'd rather ...'  
 'I rather' sounds like instead of me ...
25. 'Commander - in - chief's' is the right usage.
26. Both the assumptions are not mentioned in the statement. Hence, neither I nor II is implicit.
27. Assumption II is not implicit, since crime is not mentioned in the statement.
28. The quality of the programme is not mentioned in the statement. Hence, Assumption II is not implicit.
29. Both the assumptions are not mentioned in the statement. Hence, neither I nor II is implicit.
30. Assumption I is not implicit since the word 'only' makes it doubtful.
31. The new licences issued in '93 were  
 Metallurgical :  $1400 - 1280 = 120$   
 Electrical :  $850 - 720 = 130$   
 Chemical :  $445 - 425 = 20$   
 Textile :  $670 - 645 = 25$   
 Total =  $120 + 130 + 20 + 25 = 295$ .  
 The new licences issued in '95 were  
 Metallurgical :  $1620 - 1480 = 140$

Electrical :  $980 - 910 = 70$   
 Chemical :  $525 - 480 = 45$   
 Textile :  $840 - 785 = 55$   
 Total =  $140 + 70 + 45 + 55 = 310$ .  
 $\therefore$  The difference =  $310 - 295 = 15$ .

32. The difference between the figures of the two years for a given category will give the number of licences newly issued within that period.  
 Electrical =  $910 - 720 = 190$   
 Metallurgical =  $1480 - 1280 = 200$ .  
 $\therefore$  The required percentage =  $\frac{190}{200} \times 100$   
 =  $19 \times 5 = 95\%$
33. Using the formula for percentage deviation and the figures for 1992 and 1995 as the initial and final values, calculate the industry with the smallest such value.  
 Metallurgical =  $1620 - 1280 \times \frac{100}{1280}$   
 =  $34 \times \frac{100}{128} \approx 26 (+) \%$ .  
 Electrical =  $(980 - 720) \times \frac{100}{720}$   
 =  $26 \times \frac{100}{72} \approx 35 (+) \%$ .  
 Chemical =  $525 - 425 \times \frac{100}{425}$   
 =  $100 \times \frac{100}{425} \approx 24 (+) \%$ .  
 Textile =  $840 - 645 \times \frac{100}{645} \approx 200 \times \frac{100}{650} \approx 30 (+) \%$ .  
 So the industry with the smallest percentage increase in Chemical.
34. New textile units in '93 =  $670 - 645 = 25$ ; Existing units = 645. Total expenditure =  $(20 \times 25) + (1 \times 645)$   
 = Rs. 1,145 lakh.  
 $\therefore$  The expenditure per unit =  $\frac{1145}{670} \approx 1.7 (+)$  i.e.  
 $\approx$  Rs. 1.7 lakh.
35. New licences to chemical units in '94 =  $480 - 445 = 35$ . 40% of these new units =  $0.4 \times 35 = 14$  units.  
 20% of the existing units =  $(20/100) \times 445 = 89$  units.  
 Thus the total number of units which had to be closed down were  $14 + 89 = 103$ . From the total of 480, 103 were closed down. So  $480 - 103 = 377$  remained unaffected. Thus the % of unaffected =  $377 \times 100 / 480 \approx 78\%$ .
41. By adding up the values of the exports for the given months, the answer is obtained as 2257.5
42. By checking out the options it becomes clear that the answer is August and November.
43. The difference between the imports and exports for the three months are + 12.5, -5 and +10. So, the total difference is Rs. 17.5 million.

44. Adding up the differences gives a difference of +60. So, the imports exceeded the exports by Rs. 60 million.
45. Counting it gives us the answer as 8.
46. Age = 21
47. Grad in engineering
48. Missing age
49. Bad communication skills
50. Though a lot of information is missing, we know that the candidate is fluent in only 2 languages
51. If A has  $3x$ , B has  $2x$ , so that  $\frac{3x-10}{2x+10} = \frac{2}{3}$   
 $\Rightarrow x = 10$
52. Total number of events = 36  
 Number of favourable events = (5, 4) (4, 5) (3, 6) (6, 3) = 4  
 Required probability =  $\frac{4}{36} = \frac{1}{9}$
53.  $\sqrt{0.8} = 0.894$ ,  $\frac{\sqrt{3}}{2} = \frac{1.732}{2} = 0.866$ ,  
 $\frac{8}{9} = 0.888$ ,  $\frac{6}{7} = 0.857$ ,  $\frac{7}{8} = 0.875$   
 The ascending order =  $\frac{6}{7} < \frac{\sqrt{3}}{2} < \frac{7}{8} < \frac{8}{9} < \sqrt{0.8}$
54. A can give B a 100 m start and C a 150m. Start means when A runs 1000m, B runs 900m and C runs 850m.  
 When B runs 1000m, C runs  $\left(\frac{8500}{9}\right)$  m. i.e. B can give C a start of  $\frac{500}{9}$  m.
55. The expression simplifies to :  
 $6 + [5 - (4 + 2)] = 6 + [5 - 6] = 6 - 1 = 5$

**Questions 56 to 60:**

Wherever we have an infinite series – i.e. there is no last step of rearrangement - the question will usually give two complete cycles. Here we have been given four steps of rearrangement so we should have two complete cycles. Thus the process in Step I & II will be repeated in Step III & IV respectively.

The rearrangement here is not based on alphabetical order or on the number of letters in the words but on positional rearrangement. In Step I, the 1<sup>st</sup> & 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> and 5<sup>th</sup> & 6<sup>th</sup> words are mutually interchanged. In the next step the first three words and the last three words of Step I form two groups. Here the 3<sup>rd</sup> word moves to 1<sup>st</sup> position and the 1<sup>st</sup> and 2<sup>nd</sup> move to the right. Similarly the 6<sup>th</sup> word becomes the 4<sup>th</sup> word while the 4<sup>th</sup> & 5<sup>th</sup> move to the right. Step III & IV are repetition of Step I & II respectively. Here if we

replace the words of the input with their position numbers then the steps can be written as:

Input: 1 2 3 4 5 6

Step I: 2 1 4 3 6 5

Interchange 1<sup>st</sup> & 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> and 5<sup>th</sup> & 6<sup>th</sup>.

Step II: 4 2 1 5 3 6

3<sup>rd</sup> & 6<sup>th</sup> words of step I become 1<sup>st</sup> & 4<sup>th</sup> resp.

Step III: 2 4 5 1 6 3

Interchange 1<sup>st</sup> & 2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> and 5<sup>th</sup> & 6<sup>th</sup>.

Step IV: 5 2 4 3 1 6

3<sup>rd</sup> & 6<sup>th</sup> words of step I become 1<sup>st</sup> & 4<sup>th</sup> respectively.

Since this process can go on infinite number of times, it cannot have a last step.

Step V: 2 5 3 4 6 1

Step VI: 3 2 5 1 4 6

Step VII: 2 3 1 5 6 4

Step VIII: 1 2 3 4 5 6

which is the same as the input.

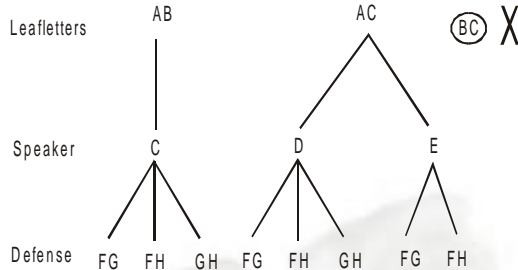
Thus Step IX should be the same as Step II, Step X same as Step III and so.

Also notice that while all other words can take any position, the 2<sup>nd</sup> word of the input remains only in 1<sup>st</sup> & 2<sup>nd</sup> positions and the 6<sup>th</sup> word of input only in 5<sup>th</sup> & 6<sup>th</sup> positions.

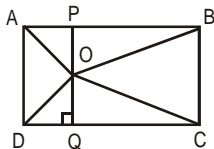
60. The rule of rearrangement given is applicable only if the input has six words. The given input has seven words and cannot use the above rules for rearrangement.
61. 'Mine' is a short form of 'my car'.
62. 'Last year' is the answer. Choice b is wrong because since is used only when we denote a specific point of time, and not a period of time.
63. 'You should have sent' is the correct answer.
64. The question tag depends on the verb used. Here the verb was 'is', hence the question tag is 'isn't it'.
65. Only choice b makes sense here. The other choices don't make sense.
66. 'Swallows coming back to Jalgaon ...' Here, the noun is in the gerund form 'coming back'.
67. Only choice a makes sense.
68. The word 'been' is available only in choice d.
69. 'Into the pool' is correct.
70. 'Better than' should be used as in the comparative degree, we use the word 'than'.

**Questions 71 to 76:**

A "tree" diagram makes everything simple. BC is an impossible leafletting team, since C won't work without A; AC is a possible leafletting team, and so is AB, but only if C is the speaker. (Remember, F is not unwilling to work without E!)



71. From the diagram, or even without it—choices A and B contain two speakers, choice D violates E's wishes and choice E violates both A's and C's wishes.
72. Either team including A can involve any of the three defense personnel. The personnel listed in choices A, B, and C are all possible selections, but others are possible. Choice E is definitely false.
73. See the diagram. All other combinations are shown to be all right by the diagram.
74. C must be present, and necessarily as a speaker (I); three defense teams are possible—all contain either F or G (III), but one does not contain F (II).
75. The bottom "branches" of the "tree" diagram all represent different possible teams, in combination with the other personnel shown.
76. Only A must be chosen. E is not necessary at all. F becomes a "must" only if E is the speaker.
77. The weapons are introduced here.
78. The weapons are explained here as something else.
79. 'Them' refers to the weapons.
80. Total war is introduced here.
81. Limited war carries on the point.

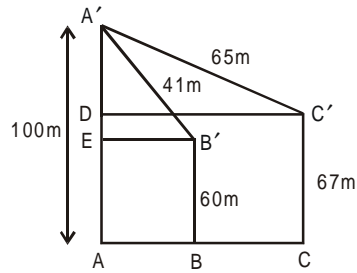


By Pythagoras theorem we get :

- (OQ)<sup>2</sup> + (DQ)<sup>2</sup> = (OD)<sup>2</sup> ....(i)
- (OP)<sup>2</sup> + (AP)<sup>2</sup> = (OA)<sup>2</sup> ....(ii)
- (OP)<sup>2</sup> + (PB)<sup>2</sup> = (OB)<sup>2</sup> ....(iii)
- (OQ)<sup>2</sup> + (QC)<sup>2</sup> = (OC)<sup>2</sup> ....(iv)

Replacing (DQ)<sup>2</sup> with (AP)<sup>2</sup> and (QC)<sup>2</sup> with (PB)<sup>2</sup>.  
 (i) + (iii) = (ii) + (iv)

83. A'D = 33 m. A'E = 40 m.



$$EB' = \sqrt{41^2 - 40^2} = 9\text{m} \text{ i.e. } AB = 9\text{m. Also } C'D = \sqrt{65^2 - 33^2} = 56\text{m} = AC. \therefore BC = AC - AB = 47\text{m.}$$

84. Rice remaining in good condition = 95% of 97% of total i.e.  $11058 = \frac{97}{100} \times \frac{95}{100} \times x \Rightarrow x = 12,000$

85. Amount

$$= \text{Rs. } 4000 \left( 1 + \frac{5}{2 \times 100} \right)^2 = \text{Rs. } 4000 \times \frac{41}{40} \times \frac{41}{40} = \text{Rs. } 4202.50$$

$$\text{C.I} = 4202.5 - 4000 = 202.5$$

86. Let the volume of A, B, and C be 4x, 5x and 6x. When the volume = x,

A weighs 2y  
 B weighs 3y  
 C weighs 4y  
 $\therefore$  In the mixture, total weight of :  
 A =  $4x \cdot 2y = 8xy$   
 B =  $15xy$   
 C =  $24xy$   
 C is the heaviest substance,  
 $\therefore$  C's weight in the mixture  
 $= \frac{24xy}{47xy} \times 94 = 48\text{kg}$

87. Both parents of a Brown female are Brown, but her father was born Red. Her mother's mother was Brown, and therefore that grandfather was born Red (I); her father's mother was Red (II), and therefore that grandfather was brown Brown (III). Use the following logic: if the parents were born in different groups, and the grandmothers were in the same groups as the parents, the grandfathers must have been in different groups.

88. This male's mother is Brown, and his father was born Red. His mother's unmarried brother is Brown, his father's unmarried brother is Red – not to mention married brothers of his parents! Our friend may only marry a Red woman, and their children will be Red (B, C); any persons the children marry must be born Brown (D, E).

89. A Red female's mother is Red, and the brother, whether unmarried, divorced, or a widower, is also Red. No Red may marry a Red. The Brown male's father was born Red, so his sister is Red (1).

The brother of the man born Red (who as a widow, is Red again) was also born Red, so his wife (now his widow) is Brown (3). Any widower has reverted to his original group, while his wife's sister is in the same group as his wife was (4). Any widow's daughter is in her own group, and the ex-husband, having reverted to the group of his birth, will be eligible (5).

90. The woman's mother has the same group as she; the mother's brother was born into this group, but married into the other and, as a widower (according to the changed rules) remains in the second group, so marriage is possible. The dead sister's husband remains in the same group as the dead sister and is not eligible (1). The daughter is in the mother's group and the ex-husband remains in it and so is not eligible (2). The widower retains his married group; his brother, born in the same group as he was, is in the same married group; so is his daughter, and is not eligible (3). The divorced male now has his ex-wife's group; so does the sister, widowed or otherwise, so no marriage is possible (5).

**Questions 91 to 95:**

The sentence is 'The best evidence was Simpson's fingerprint on the glasses and the only witnesses were Simpson's kids'.

96.  $80\%$  of MP =  $120\%$  of CP or  
 $90\%$  of MP =  $135\%$  of CP
97. The resulting number is always a multiple of 9.
98. Required number = L.C.M. of (3, 4, 5, 7) + 1
99. If he walks at  $\frac{4}{5}$  th of his usual speed, he takes  $\frac{5}{4}$  of the usual time to walk the same distance.  
 $\therefore \frac{5}{4}$  of usual time = usual time + 5 minutes.  
 $\therefore$  Usual time = 20 minutes.
100. Using Pythagoras' theorem:  
 Longer side =  $\sqrt{\left(7\frac{1}{2}\right)^2 - \left(4\frac{1}{2}\right)^2} = 6$   
 $\therefore$  Area =  $6 \times 4\frac{1}{2} = 27$  sq. feet.
101. Clearly, we wash our hands with water and as given water is called breeze. So, we wash our hands with breeze.
102. Clearly, the birds fly in air and as given air is called white. So, the birds fly in white.
103. Clearly, a flower grows on tree and as given tree is called well. So, a flower grows on well.
104. Clearly, the aeroplane flies in the sky and as given sky is called sea. So, the aeroplane flies in the sea.
105. Clearly, we drink water and as given water is called air. So, we drink air.
106. 'To be on its last legs' means to 'reach its end'. Choice

'2' is the answer.

107. 'To have a bone to pick with' means to be angry with someone.
108. 'To be a sitting duck' means to 'be an easy prey' to something or somebody.
109. 'To be upright' means to be 'just'. Fair and square implies meting out justice.
110. 'To thrust your nose' means to interfere or meddle.
111.  $110\%$  of C.P. =  $90\%$  of Rs. 275.  
 $\therefore$  C.P. =  $275 \times \frac{90}{100} \times \frac{100}{110} = \text{Rs. } 225$
112. In one kg. there are twelve  $\frac{1}{12}$  kg.  
 $\therefore$  In  $6\frac{1}{6}$  or  $\frac{74}{12}$  kg., there are 74 twelfths of a kg.
113. By alligation, the ratio of papers in which he scores 56% and 68% is 4 : 2 i.e. the total number of papers = 6
114. Total marks is E, M, H and D =  $50 \times 4 = 200$   
 M + Sc + So + C =  $70 \times 4 = 280$   
 E + M + H + D + Sc + So + C =  $58 \times 7 = 406$   
 $\therefore$  Score in Maths =  $(200 + 280) - 406 = 74$
115. Let the principal be P.  
 Amount after 20 years = 2P  
 $I = 2P - P = P \therefore P = \frac{P \times R \times 20}{100} \Rightarrow R = 5\%$
116. The person is the brother of Leela as he is the only son of Leela's father.
119. Each letter is coded by its second preceding letter.
120. Reverse the word and write the respective preceding letters as the code of each letter.
121. Old is about age and the rest mean to be young.
122. To pardon is different from the rest that mean to wreak vengeance.
123. Slack or slowing has nothing to do with the rest.
124. Pandora does not belong to the story of Achilles being vulnerable in the heel as he was held by the heel when his mother Thetis dipped him as an infant in the River Styx to make him invulnerable; he was killed by a poisoned arrow shot by Paris into the heel.
125. To have a secret is different from revealing one.
131. R and S could alternate and finish the entire job themselves.
132. T and U can work after S. R can work any day.
133. None among T, U, V or W can work on the second day.
134. T.U can't work. S can work any day. Hence, R must



- have worked the 4<sup>th</sup> day.
135. S must have worked the second day. Hence, R must have worked the 1<sup>st</sup> day.
136. One pardons or overlooks an offense; one can also overlook a wrong or an aberration. The other way to solve this analogy is – condone and overlook are similar in meaning, while offense and aberration are also similar in meaning.
137. A painful spasm is a sudden onset of pain; a flash is a brief glimpse of light. Both are sudden, unexpected sensory impressions.
138. Something striped may be corrugated just as a dot may be pitted.
139. Oxygen is in the gaseous state and Mercury is in the fluid state.
140. An acrobat must be agile; an orator eloquent.
141. Every symbol is moving x steps in anticlockwise direction and then x + 1 steps in clockwise direction.
142. In step 1 first and ninth element is interchanged to get the second figure. In the second step seventh and ninth element interchange their positions with first and third element respectively. Then the movement is like 7 – 1 – 3 – 9 – 5. Then again steps are repeated. So to get the final figure step 2 is repeated and we get option (3) as the answer.
- 143.1 The main symbol “?” is moving in anticlockwise direction with a side of  $\frac{1}{2}$ , 2, 1 and then 1, 2,  $\frac{1}{2}$  and so on. Number of symbols is like 3, 3, 4, 4, 6, 6, and so on. Symbol closer to ? is replaced by a new symbol and it changes in a proper order.
144. From top first and third elements are interchanged, then second and fourth elements are interchanged in the first figure to get the second figure. In second figure, first element becomes second, second becomes third, third becomes fourth and then fourth element becomes the first element, to get the third figure. Then, first step is repeated and after that second step is repeated and then this process is repeated to get the answer.
145. In step 1, movements are 4 – 3 and 6 – 9 whereas a new element appears at the sixth place. Then, in the second step the movement is 4 – 9 and 3 – 6, and the element reaching at the sixth place is replaced by a new element. Again step I and II are repeated and we finally get the answer as option (4).
146.  $A : B = \frac{1}{2} : \frac{1}{3}$  or 3 : 2 ;  $B : C = \frac{1}{2} : \frac{1}{3}$  or 3 : 2  
 $\therefore A : B : C = 9 : 6 : 4$
147.  $\frac{(80 \times 7) - (71 \times 4)}{3} = 92\%$
148. 24! has 8 multiples of 3 i.e. 3, 6, 9, 12, 15, 18, 21, 24. Since each one of them has 3 as its factor, we know that 3<sup>8</sup> is definitely a factor of 24!. However, 9 and 18 have an additional 3 each, as their factor. Thus, the maximum power of 3 in 24! is (8 + 2) = 10.
149. If a and b are the incomes of A and B, then  
 $\frac{a}{4} = \frac{b}{5} + 100 \dots(i)$  and  $a + b = 1750 \dots(ii)$   
 Solve them to get a = Rs. 1,000
150. Product of numbers = H.C.F × L.C.M  
 The 2nd number =  $\frac{34 \times 1020}{204} = 170$
151. The alternate figures follow a specific set pattern. The direction of the arrow is opposite in option (3)
152. Elements of the figures follow a set pattern. In the 5th option the arrow should have been placed in the middle.
153. One line is eliminated in each figure. In option (5) one more line should have been eliminated from the bottom left figure.
154. The direction of the two arrows should be inward.
155. The square should be placed to the right side of the line.
156. The prices of the tooth pastes are given as a range and thus it is not possible to determine the exact price of a toothpaste used by any particular household.
157. Required probability =  
 $\frac{1500 + 500 + 1750 + 750 + 350 + 150 + 500 + 1200 + 400 + 200}{\text{Total number of households with income} < 5000}$   
 $= \frac{7300}{9600} = 0.76$
158. P (at least Rs. 2,500 P.M)  
 $= P(\text{Rs. 2, 500 P.M}) + P(\text{more than Rs. 2,500 P.M})$   
 $= \frac{400 + 200 + 50}{500 + 1200 + 400 + 200 + 50} = \frac{650}{2350} = 0.28$
159. Required ratio  
 $= \frac{1500 + 1750 + 500 + 250 + 50}{\text{Total number of households}} = \frac{4050}{10000} = 0.405$
160. Statement I is true, as the table clearly shows that as the income of households increases, the number of households using toothpastes in the range < 4, 4 - 6 and 6 - 8 reduce.  
 Statement II is false as there are households with low income using expensive toothpaste e.g. 50 households with income < Rs. 1500 use toothpaste which cost > Rs. 10 each.  
 Statement III is true as number of households with incomes < Rs. 2500 = Rs. 7,050, which is more than 50% of the total number of households i.e. 10,000.
161. All figures consist of 3 congruent rectangles and an arrowhead.
162. All figures consists of nine lines.
163. Every figure has vertical axis of symmetry except

- figure (5)
164. The back dots are one more in number than the squares.
165. Each figure is a water image of each other except figure (2) hence, figure (2) is the answer.
166.  $g(3) = 3^2 + 2 = 11$
167. In 2 minutes, 2 taps fill  
 $2\left(\frac{1}{12} + \frac{1}{18}\right)$  or  $\frac{5}{18}$  of the tank.  
 $\frac{13}{18}$  of the tank is to be filled by the second tap at the rate of  $\frac{1}{18}$  of the tank per minute. For this it takes 13 minutes.
168. If we want to go from P to R, we could go by : PR, PQR, PSR, PQSR, PSQR.
169. The required measure is the G.C.D. of 27, 33 and 45 litres i.e. 3 litres
170. Let the original number of students be x. Then,  
 $\frac{50x + 237}{x + 5} = 49.8 \Rightarrow x = 60$  students.
171. The entire passage is based on the findings of Bowen and his colleagues. The last line of the passage gives the list of the DNA studies.
172. From the information provided in the passage only choice C can be answered.
173. Read the sentence – ‘This approach contends that virgin ... must be rare in green turtles’. Hence Bowen and his colleagues cannot agree with this statement.
174. Read the sentence – ‘Widespread interbreeding of diverse ... highlighted by the study’.
175. The ‘natal homing’ theory is the clue to the fact that the scientist’s purpose of the study. Also the last line of the passage summarizes the analyses of the study.
176. Movement is  $\rightarrow 2 - 5 - 8 - 1, 9 - 7 - 6 - 4 - 3$ . Only choice (5) follows the above stated rule. Hence, choice (5) is the answer.
177. Each elements moves at its own place by  $135^\circ$  in clockwise direction. Only figure (4) follows this rule. Hence, option (4) is the right answer.
178. First element takes  $135^\circ$  clockwise movement second element takes  $135^\circ$  anticlockwise movement, third element takes  $135^\circ$  clockwise movement. Fourth element takes  $135^\circ$  anticlockwise movement.
- Note:** Numbers 1, 2, 3 etc. are allocated in anticlockwise manner. Hence, only choice (1) is the answer as it follows the logic.
179. Movement is like  $1 - 4 - 7 - 3 - 6 - 9$ . This rule is followed by figure (5). Hence, figure (5) is the answer.
180. From left hand side, the first element becomes the

- bottom figure after taking  $90^\circ$  clockwise turn. Similarly the second element takes  $90^\circ$  clockwise turn and becomes the second figure from the bottom. Third figure takes  $90^\circ$  clockwise turn and becomes the third figure from bottom. And finally, the fourth figure takes  $90^\circ$  clockwise turn and becomes the topmost figure from bottom. In the whole process, filled element becomes empty and empty elements gets filled. This rule is followed in figure (3) only and not in the other figures, hence, choice (3) is the answer.
181. Combining I, II and III, we get  
 $2(A + T + M) = \frac{1}{30} + \frac{1}{45} + \frac{1}{10} = \frac{3+2+9}{90} = \frac{14}{90}$   
 $\therefore (A + T + M) = \frac{7}{90}$   
Using this result and statement III, the days required by Arun can be calculated.
182. From I, let the number be  $10a + b$ , where  
 $a + b = 5$  ....(i)  
From II,  $10a + b - 10b - a = 27$   
 $a - b = 3$  ....(ii)  
These two equations can be solved to find the number. Hence, statement III is of no use and can be dispensed with.
183. Statements I and II give the same type of informations and hence, either of them can be dispensed with. Statement III is necessary and in combination with either I or II, we can find the desired probability.
184. Statement I gives the information that the shares of Kavita, Milan and Shivani are in the ratio of  $4 : 6 : 3$ . Statement II gives the total value of money to be divided in the ratio  $6 : 4 : 3$ . Statement III gives the same information as that of statement I. Hence, either I or III can be dispensed with.
185. All statements separately can give the value of r. Hence, we can dispensed with any of the two statements.
186. She called him up.
187. Carrying on the idea of the call.
188. The prize is a check.
189. The ‘novelist’ is referred to as the ‘author’.
190. Sales break records.
191. The figure (ii) is the mirror image of (i) with all the arcs in the opposite direction.
192. In other figures only two arms have been removed.
193. The figure is rotated clockwise by  $90^\circ$ . The position of the middle line is removed if it is present or added if not present.
194. (ii) is the mirror image of (i).
195. All the figures move clockwise. The figure that goes to the bottom is replaced and the figure that reaches the

- top is shaded.
196. There is no relation between E and other person.  
Hence, the tallest person cannot be determined.
197. Either statement alone can answer the question.  
Statement I and II individually state that the man in the photograph is Kavita's father.
198. From statement I, Air → land → flowers → birds  
Hence, flower stands for birds
199. Statement II doesnot tell anything about flowers.  
Statement I is of no use.  
From statement II, we get to know that Uttam is finally in the north direction from his starting point
200. Both statements are required to answer the question.  
Money spent by Anupama on purchasing  
$$= \frac{1500}{2} = \text{Rs. } 750$$
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