

# ANSWER KEY- SNAP 2005

1	a	2	d	3	c	4	a	5	d	6	c	7	b	8	d	9	b	10	a
11	a	12	c	13	a	14	d	15	b	16	b	17	c	18	c	19	a	20	c
21	c	22	c	23	a	24	a	25	d	26	c	27	d	28	c	29	c	30	b
31	a	32	b	33	d	34	d	35	c	36	d	37	b	38	c	39	b	40	c
41	c	42	*	43	a	44	c	45	d	46	a	47	a	48	d	49	c	50	b
51	d	52	b	53	a	54	c	55	c	56	a	57	c	58	b	59	c	60	c
61	b	62	b	63	d	64	c	65	c	66	a	67	d	68	b	69	a	70	d
71	c	72	d	73	b	74	d	75	d	76	a	77	b	78	c	79	a	80	d
81	a	82	a	83	d	84	c	85	c	86	b	87	a	88	b	89	c	90	a
91	d	92	b	93	b	94	b	95	c	96	a	97	d	98	d	99	d	100	b
101	c	102	b	103	c	104	c	105	d	106	a	107	b	108	a	109	d	110	d
111	a	112	d	113	d	114	a	115	b	116	c	117	c	118	b	119	b	120	c
121	b	122	*	123	*	124	d	125	d	126	d	127	d	128	c	129	c	130	a
131	b	132	d	133	d	134	a	135	c	136	*	137	a	138	c	139	d	140	c
141	a	142	*	143	a	144	c	145	d	146	d	147	a	148	c	149	b	150	c
151	c	152	c	153	b	154	c	155	d	156	c	157	d	158	b	159	a	160	c

# SOLUTIONS - SNAP 2005

1. a 'Preamble' means a preliminary or preparatory statement or an introduction; 'Prologue' means a separate introductory section of a literary, dramatic, or musical work. 'Independence' is an unrelated term here. 'Laws' are there in the constitution, but it doesn't give an analogy with 'prologue'. 'Amendment' is addition to or rectification of an existing thing. 'Eulogy' is a statement of praise for someone. 'Epilogue' is a summary or a short note, which comes at the end of an article.
2. d 'Neigh' is the name for horse's voice, while a donkey's voice is called 'bray'. 'Hoof' is the name of distal part of an animal's legs (e.g., horse, cow, buffalo, etc.). 'Saddle' is the cushioned seat kept on animal's back for comfortable ride. 'Pony' is the calf of a horse. 'Wagon' is a wheeled carriage that can be drawn by horse or a rail engine.
3. c 'Meter' is a unit to measure distance, 'kilogram' is the unit for measuring weight. Other options are unrelated.
4. a 'Always' is an antonym for never, while 'all' is an antonym for none. 'Usually' doesn't mean 'always', rather it means generally. Similarly, seldom doesn't mean never, it means not often or infrequent.
5. d 'Clouds' produce 'rain', similarly dams produce electricity. Hence, option (d) is the correct answer. 'Fog', 'water' and 'spillway' are unrelated.
6. c 'Pacifist' is a person who does not believe in 'war' and an 'atheist' is a person who does not believe in 'religion'. Hence, option (c) is the correct answer.
7. b 'Moulting' means to shed old feathers, hair, or skin to make way for a new growth similarly, 'shedding' is a term used to refer to the hair loss in dogs. Hence, option (b) is the correct answer.
8. d 'Pound' is the currency used in England, while 'Lira' is the currency of Italy. 'Mandolin' is a musical string instrument. 'Colony' is given as an option to confuse the candidate regarding England's colonial empire.
9. b 'Toronto' is the capital of 'Canada', and 'Rangoon' is the capital of 'Burma' (Myanmar). 'Detroit' and 'Florida' are in USA. 'Ceylon' is a Sri Lankan city. East Pakistan was the name of Bangladesh before its creation.
10. a A 'whole' comprises of 'parts' and 'each' is a part of 'all'. Hence, option (a) is the correct answer.
11. a Here, 'comical' and 'tragedy' are opposite in meaning. Hence, option (a) is the correct answer.
12. c 'Deliberate' means something that is done intentionally; 'involuntary' means something done without one's will or intention. These are opposite in meaning hence, option (c) is the correct answer.
13. a 'Fastidious' means very attentive to and concerned about accuracy and detail similarly, 'meticulous' means showing great attention to detail. As they both are synonymous, option (a) is the correct answer.
14. d 'Querulous' means complaining in a rather petulant or whining manner; 'compatible' means able to exist or occur together without problems or conflict. These are opposite in meaning hence, option (d) is the correct answer.
15. b 'Extravagance' means lack of restraint in spending money or using resources similarly, 'prodigality' means spending money or using resources freely and recklessly. These are synonymous so, option (b) is the correct answer.
16. b According to the argument social psychologists are obligated to provide others with conceptual tools. Also, the government officials are turning to the social scientists for insights into the nature and solutions of problems, which they confront. This means that social phenomena are not very well understood outside the field of social psychology, as the people outside the field require the assistance of social psychologists. Hence, option (b) is the correct answer.
17. c The statement says that after an extensive sales network has been established in a foreign market and substantial sales have been achieved these markets can be treated as domestic markets. Whereas the markets where sales are at an elementary level the marketing methods have to be different from domestic markets. The argument assumes that large markets are adaptable to domestic marketing methods. Hence, option (c) is the correct answer.
18. c The argument is that the concept of equality of income which have been advocated in Europe and America, should be applied to developing countries to speed up the economic development. Developing countries, which are generally poor countries, have very low total income so, even if that income is equally distributed it would not be enough to provide resources. Hence, option (c) weakens the argument.
19. a The argument here tries to make a comparative analysis of the most dangerous mode of transport. However, the data provided does not tell us the base of each of the statistics provided. For example, we do not know the number of people who travel by automobiles, air planes or trains. Hence, there is no way to come to a conclusion.
20. c As per the argument this trend requires the income of the consumers to increase. Only option (c) presents a scenario where the income of the consumers decreases. Hence, option (c) is the correct answer.
21. c The argument says that there was a 10 percent increase in private vehicles and 15 percent increase in imports including commercial vehicles. This means that for total increase to be 15 percent the increase in commercial vehicles has to be greater than that of the private vehicles.  
It is easier to understand this by following example:  
Average Increase = 15%  
If it is equal for both items then increase for pvt. Vehicles = 15%  
Increase for commercial vehicles = 15%  
As, increase for pvt. vehicles is 10%  
So, increase for commercial vehicles should be 20%  
Therefore commercial vehicles > pvt. vehicles.

22. c A question tag is a device to turn a statement into a question. If the Statement is in the affirmative the question tag has to be in the negative. As the statement refers to a singular person the appropriate option is 'didn't he'. Hence, option (c) is the correct answer.

23. a News is a singular noun so; as per the subject verb agreement the verb will take singular form. Hence, option (a) is the correct answer.

24. a The sentence requires an infinitive (to hurry) preceded by a verb. Hence, option (a) is the correct option.

25. d Here article 'a' is to be used to modify the noun hair which is a non-particular noun, also article 'the' is required to modify the noun soup which is a particular noun. Hence, option (d) is the correct answer.

26. c The possible combinations of the balls that can be put in to the three boxes are (1, 1, 4), (1, 2, 3) or (2, 2, 2). Number of ways of distributing the balls into the boxes corresponding to the combination (1, 1, 4)

$$= \frac{{}^6C_1 \times {}^5C_1}{2} \times 3! = 90$$

Number of ways of distributing the balls into the boxes corresponding to the combination (1, 2, 3)

$$= {}^6C_1 \times {}^5C_2 \times 3! = 360$$

Number of ways of distributing the balls into the boxes corresponding to the combination (2, 2, 2)

$$= {}^6C_2 \times {}^4C_2 = 90$$

$$\therefore \text{Total number of ways} = 90 + 360 + 90 = 540.$$

27. d Let  $a^x = b^y = c^z = k$

$$\Rightarrow a = k^{1/x}, b = k^{1/y} \text{ and } c = k^{1/z}$$

$$\therefore b^2 = ac$$

$$\Rightarrow \left(k^{1/y}\right)^2 = k^{1/x} \cdot k^{1/z}$$

$$\Rightarrow k^{2/y} = k^{1/x + 1/z}$$

$$\Rightarrow \frac{2}{y} = \frac{1}{x} + \frac{1}{z} = \frac{x+z}{xz}$$

$$\Rightarrow y = \frac{2xz}{x+z}$$

28. c Number of relations from set A to set B  
 $= \{n(B) + 1\}^{n(A)} = 1024 = 2^{10} = (1 + 1)^{10}$   
 $\Rightarrow n(A) = 10 \text{ and } n(B) = 1.$

29. c Number of ways in which 2 stations can be chosen =  ${}^{10}C_2$   
 Also, two types of tickets are required between any two stations.

$$\therefore \text{Total types of tickets} = {}^{10}C_2 \times 2! = \frac{10!}{8!}.$$

30. b Consonants can be placed at both the ends in  ${}^5P_2$  ways while the middle letters can be arranged in  $6!$  ways.  
 $\therefore$  Total number of ways possible =  ${}^5P_2 \times 6! = 14400.$

31. a Using derangement principle,

$$U_4 = 4! \left( 1 - \frac{1}{1!} + \frac{1}{2!} - \frac{1}{3!} + \frac{1}{4!} \right)$$

$$= (12 - 4 + 1)$$

$$= 9.$$

$$32. b \frac{3a+2b}{3a-2b} = \frac{3 \cdot \frac{a}{b} + 2}{3 \cdot \frac{a}{b} - 2} = \frac{3 \cdot \frac{4}{3} + 2}{3 \cdot \frac{4}{3} - 2} = \frac{6}{2} = 3.$$

$$33. d \boxed{\times 1 \times 2 \times 4 \times 3 \times 7 \times 2 \times}$$

Digits other than 5 can be arranged in  $\frac{6!}{2!}$  ways and 5's can be placed at any of the 7 places marked by 'x', which can be done in  ${}^7C_3$  ways.

$$\therefore \text{The answer} = {}^7C_3 \times \frac{6!}{2!} = 7! \times \frac{5}{2}.$$

$$34. d 2^{x-1} + 2^{x+1} = 320$$

$$\Rightarrow 2^x \left( \frac{1}{2} + 2 \right) = 320$$

$$\Rightarrow 2^x = \frac{320 \times 2}{5} = 128$$

$$\Rightarrow 2^x = 2^7$$

$$\Rightarrow x = 7.$$

35. c No such case would exist such that after putting nine letters in proper envelop, tenth letter is placed in a wrong envelope. Hence, the probability of such a event is zero.

36. d Let the number of questions answered correctly be x. Then the number of questions answered incorrectly will be (26 - x).

$$\therefore 8x - 5(26 - x) = 0$$

$$\Rightarrow 8x = 130 - 5x$$

$$\Rightarrow x = \frac{130}{13} = 10.$$

37. b The number of matches played in an elimination tournament is always one less than the number of players. Hence, the answer =  $n - 1$ .

38. c For  $(2y - 3x)$  to be least, 'x' must have maximum possible value while 'y' minimum.

$$\therefore x = 2 \text{ and } y = 1$$

$$\text{Hence, the answer} = 2y - 3x = 2(1) - 3(2) = -4.$$

39. b Let  $n = 4q + 3$

$$\therefore 2n = 8q + 6 = 4(2q + 1) + 2$$

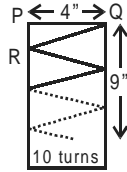
So, when  $2n$  is divided by 4, remainder will be 2.

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40. c If the cylinder is cut longitudinally it will form a rectangle of dimension  $4'' \times 9''$  and the helically wrapped wire form triangle

$$PR = \frac{9}{10} = 0.9''.$$

$$QR^2 = PR^2 + PQ^2 = (4)^2 + (0.9)^2$$



$$\Rightarrow QR = 4.1''$$

$$\therefore \text{Total length of the wire} = 4.1 \times 10 = 41''.$$

41. c  $5746320819 \times 125$

$$= 5746320819 \times \frac{1000}{8}$$

$$= \frac{5746320819000}{8}$$

$$= 718,290,102,375.$$

42. \* Since total amount paid to the women should be completely divisible by the bonus paid to each women. Therefore, both options (a) and (b) seem correct.

43. a

44. c Let the year in which first book was published be  $x$ . The seven years in which books were issued will be in A.P. with a common difference of 7, i.e.  $x, x + 7, x + 14, \dots, x + 42$

$$S_7 = \frac{n}{2}[2a + (n-1)d]$$

$$\Rightarrow 13524 = \frac{7}{2}[2x + (7-1)7]$$

$$\Rightarrow 13524 = 7x + 147$$

$$\Rightarrow x = \frac{13377}{7} = 1911.$$

45. d Let the number of days in the period be  $x$ .  $\therefore x$  mornings and  $x$  afternoon would have been there. Since, it is quite clear from the given information that it rained either in the morning or in the afternoon.

$$(x-6) + (x-7) = 9$$

$$\Rightarrow 2x = 13 + 9 = 22$$

$$\therefore x = \frac{22}{2} = 11 \text{ days}.$$

46. a Time after which the three different traffic lights change together  
= LCM (48, 72, 108) = 432 seconds.  
Hence, traffic lights will change together after 432 seconds, i.e. at 8 : 27 : 12 hrs.

47. a  $\frac{1}{4}$  of 20 = 6 =  $\left[\frac{1}{4} \times 20 + 1\right]$

$$\text{Similarly, } \frac{1}{5} \text{ of } 10 = \left[\frac{1}{5} \times 10 + 1\right] = 3.$$

48. d We have,  
 $187x - 104y = 41$

If difference of two numbers is to be odd then one number has to be even and other one odd. Since  $104y$  will always be even irrespective of value of  $y$ ,  $187x$  has to be odd, i.e.  $x$  must be odd.

Hence, option (d) is the correct answer.

49. c

50. b  $1.125 \times 10^k = 0.001125$

$$\Rightarrow 1.125 \times 10^k = 1.125 \times 10^{-3}$$

$$\Rightarrow 10^k = 10^{-3}$$

$$\Rightarrow k = -3.$$

51. d Let the price of each sandwich, coffee and biscuit be  $s, c$  and  $b$  respectively.

$$4s + 1c + 10b = 1.69 \quad \dots (i)$$

$$3s + 1c + 7b = 1.26 \quad \dots (ii)$$

(ii)  $\times 3 -$  (i)  $\times 2$ , we get

$$1s + 1c + 1b = 1.26 \times 3 - 1.69 \times 2 = 3.78 - 3.38$$

$$= \text{Rs. } 0.40, \text{ i.e. } 40 \text{ paise.}$$

52. b Let the initial cost (in Rs.) per person be  $x$ .

$$\Rightarrow 10x = 15(x - 100)$$

$$\Rightarrow 5x = 1500$$

$$\therefore x = \text{Rs. } 300.$$

53. a Let the quantity drained be  $x$  quart.

$$\therefore x \times 90 + (27 - x) \times 18 = 27 \times 42$$

$$\Rightarrow 90x - 18x + 27 \times 18 = 27 \times 42$$

$$\Rightarrow 72x = 27(42 - 18)$$

$$\Rightarrow x = \frac{27 \times 24}{72} = 9.$$

54. c Required percentage =  $100 - [(100 - 70) + (100 - 75) + (100 - 85) + (100 - 90)]$   
=  $100 - (30 + 25 + 15 + 10)$   
= 20%.

55. c When, both hands are together between 8 and 9,

$$\theta = \frac{11}{2}m - 30h$$

$$\Rightarrow 0 = \frac{11}{2}m - 30 \times 8$$

$$\therefore m = \frac{480}{11} = 43 \frac{7}{11} \text{ min.}$$

When, both hands are at  $180^\circ$  between 2 and 3,

$$180 = \frac{11}{2}m - 30 \times 2$$

$$\therefore m = 43 \frac{7}{11} \text{ min.}$$

Therefore, Henry started trip at  $8 : 43 \frac{7}{11}$  A.M. and ended it at

$$2 : 43 \frac{7}{11} \text{ P.M.}$$

Hence, the duration of the whole journey was 6 hours.

56. a The answer =  $75000 - 68000 = 7000$ .

57. c 1195

58. b 1360

59. c Percentage of matches lost by P

$$= \frac{14}{(36 + 14)} \times 100 = 28\%$$

Percentage of matches lost by Q

$$= \frac{21}{(34 + 21)} \times 100 = 38.18\%$$

Percentage of matches lost by R

$$= \frac{36}{(23 + 36)} \times 100 = 61.01\%$$

Percentage of matches lost by S

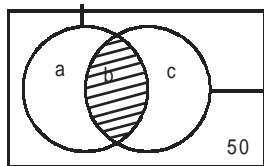
$$= \frac{30}{30 + 30} \times 100 = 50\%$$

Hence, R lost the maximum percentage of matches played.

60. c By using both statements A and B, we can find the value of the third quotation, i.e.  $120 \times 3 - (90 + 125) = \text{Rs. } 145$ .

61. b Statement A alone is not sufficient to answer the question. Using statement B:

Financial express = 200



Here,  $a + b = 200$

$b + c = 220$

Also,  $a + b + c = 300 - 50 = 250$

From (i) and (iii), we get  $c = 50$

$\therefore b = 220 - 50 = 170$

Hence, statement B alone is sufficient.

62. b Both statements A and B have almost the same information except an additional information of time of two hours in B. So from statement B

$$\text{Speed of bus} = \frac{40}{2} = 20 \text{ km/hr.}$$

$$\text{Speed after problem in engine} = \frac{20}{4} = 5 \text{ km/hr.}$$

As the bus took 40 minutes extra due to this reduction in speed, distance between P and Q can be calculated.

63. d On the basis of the information given in the two statements, we cannot find an unique value of X.

64. c Either of the statement is alone not sufficient to answer the question.

Using both the statements: As the flight time is 6 hours, the flight arrives at 12 midnight according to Nairobi time. But it is 3 a.m. at Mumbai.

Therefore, the time difference is 3 hours.

65. c Statement A has no information about father, while in statement B has no information about Sujata.

Using both the statements:

Father's age 5 years ago =  $3 \times \text{Sangeeta's current age} = 3 \times 20 = 60$

$\therefore$  Father's current age =  $60 + 5 = 65$  years.

66. a From statement A alone we can say that Sandhya has two sisters because Alka and Sandhya are sisters.

67. d On the basis of the information given in the two statements, question cannot be answered.

68. b The answer =  $\frac{(60 - 16)}{60} \times 100 \approx 73.4\%$

69. a Change in buyers in age group of 10 – 20 years from 1995 to 1999

$$= 2000 \times 0.7 - 2000 \times 0.3$$

$$= 2000 \times 0.4 = 800.$$

70. d No particular trend in any of the age group.

71. c Percentage increment in number of buyers from 1997 to 1999 in age group (10 – 20)

$$= \frac{(70 - 60)}{60} \times 100 = 16.66\% \approx 16.7\%.$$

72. d No particular trend is followed in any age group.

73. b Regain strategy should focus on age group (20 – 40) years as showed continuous decline in buying trend except in year 1998.

74. d Total number of people go to location G

$$= (68 + 108 + 130 + 20 + 46 + 120 + 86) = 578$$

$$\text{Total number of people go to location D} = (66 + 152 + 88 + 110 + 68 + 152 + 108) = 744$$

$$\text{Total number of people go to location B} = (48 + 108 + 92 + 48 + 74 + 32 + 70) = 472$$

$$\text{Total number of people go to location A} = (20 + 28 + 54 + 70 + 24 + 28 + 50) = 274$$

Therefore, location A attracts minimum number of visitors.

75. d There is no information about the other locations which may be present in the zoo.

76. a Total visitors go to E location

$$= (24 + 64 + 86 + 42 + 112 + 6 + 68) = 402$$

$$\therefore \text{The answer} = \frac{42}{402} \times 100 = 10.44 \approx 10\%$$

77. b Difference between number of people going from B to F and G, D to F and G

$$= (90 + 108) - (82 + 20) = 96.$$

78. c Going by the option, the least value of visitors leave from location A which is 320.

79. a Number of people leaving F for C = 92  
Number of people leaving C for F = 46  
Hence, option (1) is correct answer.

80. d Number of people going to A from B and C =  $20 + 28 = 48$   
Going by the options, (d) is correct answer.

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81. a Highest number of people leave from C which is equal to 616.
82. a Contingent expenses in year 3 =  $100 \times 0.2 \times 0.12$   
= 2.4 crores.
83. d Since,  $17 + \frac{1}{4}$  of 20 = 22  
∴ The year is year 1.
84. c In year 2 expense was 19 crores and 15% increase in it will take it to  $(19 \times 1.15) = 21.85 \approx 22$  crores which is possible in year 4 after a gap of 2 years.
85. c Difference between expense between year 2 and year 1 =  $19 - 17 = 2$  crores.  
Going by the options both (a) and (b) are correct.
86. b Percentage increase in expense from year 3 to year 5  
=  $\frac{22 - 20}{20} \times 100 = 10\%$   
∴ Expenditure in year 6 =  $22 \times 1.1 = 24.2$
87. a Amount spent on disaster recovery =  $22 \times 0.1 = 2.2$  crores.

For questions 88 to 95:

Month	Opening Stock	Demand in units	Reserve 20%	Production Requirement	Working Days
Jan	50	300	60	310	22
Feb	60	500	100	540	19
Mar	100	400	80	380	21
Apr	80	100	20	40	21
May	20	200	40	220	22
June	40	300	60	320	20

88. b
89. c
90. a
91. d
92. b Total man-hours required =  $310 \times 10 = 3100$   
One worker in January can give =  $22 \times 8 = 176$  labour-hours.  
∴ Number of workers required =  $\frac{3100}{176} = 17.6 \approx 18$   
Hence, 2 workers can be laid off.
93. b Total labour-hours required in February =  $540 \times 10$   
= 5400  
∴ Total men required =  $\frac{5400}{19 \times 8} = 35.52 \approx 36$  workers.  
Hence, 18 additional workers need to be employed.
94. b Total labour-hours required in January =  $310 \times 10$   
= 3100  
Total labour-hours available =  $20 \times 22 \times 8 = 3520$   
∴ The answer =  $3520 - 3100 = 420$  hrs.

95. c Total labour-hours required in February =  $540 \times 10$   
= 5400  
Total labour-hours available =  $20 \times 19 \times 8 = 3040$   
∴ Required answer =  $5400 - 3040 = 2360$  hours.

96. a 97. d 98. d 99. d 100. b 101. c  
102. b 103. c 104. c 105. d 106. a 107. b  
108. a 109. d 110. d 111. a 112. d 113. d

114. a  $CSA = \frac{92.40}{0.02} = 4620 \text{ cm}^2$   
 $\Rightarrow 2\pi rh = 4620$   
 $\Rightarrow 2\pi \times \frac{5}{3} h^2 = 4620 \left( \because r = \frac{5h}{3} \right)$   
 $\Rightarrow h = 21$   
∴  $r = 35$   
Volume =  $\pi r^2 h = 80850 \text{ cm}^3$ .

115. b 116. c 117. c 118. b 119. b 120. c

121. b From statement 1, D cannot be at fourth position.  
∴ Option (a) and (c) can be eliminated.  
From statement 2, option (d) cannot be the answer as two of letters should be at exact position.  
Hence, option (b) is the correct answer.
122. \*
123. \*
124. d Going through the options, option (d) gives the proper sequence, which is shown as below.  
SLaB / SIbc / SLCd / SLDe.
125. d The given sequence is composition of two sequences – their terms are at alternate positions in the sequence. First is composed cubes of consecutive positive odd natural numbers starting from 1 whereas second is composed of squares of consecutive even natural numbers starting from 1.  
Hence, the missing term is 125.
126. d Letters at alternate places are in alphabetical order except in option (d).
127. d In each of the options, the first two letters are same whereas the last two are distinct except in option (d).
128. c Number inside each of the circles is square of sum of square roots of the numbers outside the circle.  
∴ The answer =  $(1 + 3 + 9 + 5) = 324$ .
129. c In each of the rows of the given grid, number in a cell is 9 less than that of in the preceding cell.  
Hence, option (c) is the correct answer.
130. a In each of the columns of the given grid, numbers in top most cell and bottom most cell is multiplied to get the number in middle cell and two cells contain same letter.  
Hence, option (a) is the correct answer.

131. b Since 2 and 1 cannot come opposite to 4, 3 must come opposite to 4.  
Hence, option (b) is the correct answer.

132. d Till 22<sup>nd</sup> June 2003 =  
2002 years + (31 + 28 + 31 + 30 + 31 + 22) days  
= 2002 years + 173 days  
Since, 2000 years do not have any odd day.  
∴ Total number of odd days = 1 + 1 + 5 = 7 days (i.e., 0 day)  
Hence, 22<sup>nd</sup> June 2003 will be Sunday.

133. d The design in the boxes diagonally opposite are inverted

134. a  $65 + 89754 \times 9856 / 785 - 8647$   
= 1118316.629.

135. c  $(89765 - 897 \times 6789 / 89)^2$   
= 455439719.7.

136. \*  $(1234 - 90 + 8978 \times 234)^3$   
= 9287432187252895936.  
None of the given option can be correct answer.

137. a  $(980 \times 320 / 56 - 220)^2 = 28944400$

138. c  $8765 + 789654 \times 456 + 4356/660 - 34532$   
= 360056463.6.

139. d

140. c

141. a The vertical lines that are above and below the horizontal line are moving one step from left to right and right to left respectively in an alternate manner.

142. \*

143. a In each step blackened parts get reduced by 1. Also the number of vertical lines increase by one in alternate figures starting from second figure. So, there would be five vertical line in the fifth figure with an extra tilted line attached to the fifth vertical line.

144. c The number of circles get increased by one in each subsequent step.

145. d Blocks in all the given figures get filled or unfilled alternately in an anticlockwise direction.

146. d One side of the rectangle in first figure moves downward in each subsequent step.

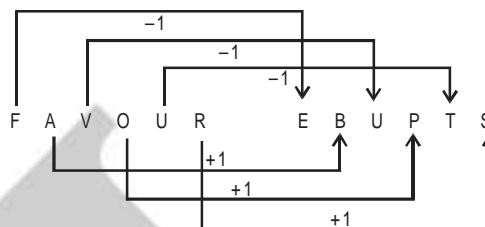
147. a From the given statement it can be inferred that Some wise men deserve to be imitated.

148. c
- |      |     |     |     |     |      |     |
|------|-----|-----|-----|-----|------|-----|
| M    | A   | C   | H   | I   | N    | E   |
| ↓    | ↓   | ↓   | ↓   | ↓   | ↓    | ↓   |
| (13) | (1) | (3) | (8) | (9) | (14) | (5) |
| +    | +   | +   | +   | +   | +    | +   |
| (6)  | (6) | (6) | (6) | (6) | (6)  | (6) |
| ↓    | ↓   | ↓   | ↓   | ↓   | ↓    | ↓   |
| 19   | 7   | 9   | 14  | 15  | 20   | 11  |

Similarly,

D	A	N	G	E	R
(4)	(1)	(14)	(7)	(5)	(18)
+	+	+	+	+	+
(6)	(6)	(6)	(6)	(6)	(6)
↓	↓	↓	↓	↓	↓
10	7	20	13	11	24

149. b Code pattern is shown in diagram given below:



Hence, DAGGER will be coded as CBFHDS.

150. c As South East becomes North and North East becomes West. It means directions are rotating by 135° in anticlockwise direction.  
Therefore, west will become S.E.

151. c A will be 14 km North from its starting position while B will be 14 km south.  
∴ Distance between them  
=  $14 \times 2 = 28$  km.

152. c Y's 1 day work =  $\frac{1}{8} - \frac{1}{12} = \frac{1}{24}$

∴ Y can do the work in 24 days.

153. b Word will be 'BEACH' whose fourth letter is 'C'.

154. c Possible two letter words are 'ON', 'NO' and 'TO'.

155. d The Guest by his comment is trying to pacify the Host. This is clearly conveyed by him in statement 4. Options (1) and (2) would convey his rudeness which is not the guests intention. As the guest mentions "Hope I am not too late." Option (3) would contradict the situation. Hence, option (4) is the correct answer.

156. c Like 'tadpole' is a young one of a 'frog' similarly; a 'caterpillar' is a young one of a 'butterfly'.

157. d 'Wary' means feeling or showing caution hence, 'cautious' is its synonym

158. b 'Aviary' is a cage where birds are kept; 'Apiary' is a place where bees are kept; 'Nursery' means a place where young plants and trees are grown; 'Aquarium' is a transparent tank of water in which live fish and other water creatures and plants are kept.

159. a A defect by birth can only be 'genetic'; other defects can be developed later as well. Hence, option (a) is the correct answer.

160. c