# ANSWER KEY - SNAP 2007

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

# SOLUTIONS - SNAP 2007

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. b | 2. b | 3. d | 4. c | 5. a | 6. c | 7. c |
| 8. b | 9. a | 10. b | 11. d | 12. a | 13. c | 14. a |
| 15. b | 16. a | 17. d | 18. b | 19. b | 20. c | 21. b |
| 22. d | 23. c | 24. a | 25. c | 26. b | 27. b | 28. c |
| 29. a | 30. d | 31. d | 32. c | 33. b | 34. c | 35. a |
| 36. d | 37. d | 38. a | 39. a | 40. b | | |

41. d Refer to line, ''Some of the questions…years of explanation."

42. d Refer to line, "Within the university…university is for." 'that' in the second sentence refers to asking questions and trying to find the answers. Hence, (d) is correct.

43. b The passage states that in response to the reason for asking complex questions, a scientist says that it will help in the invention of some new machinery. He says so because he knows that the world respects utility. Hence, (b) is correct.

44. a The author cites examples of a historian and a mountain climber to explain the logic behind scientists asking specialized questions. Refer to lines "**The way a** …it is there" and "**Similarly a historian**…on such occasions."

45. c The last few lines of the passage convey that for a scholar, satisfaction of his curiosity is of utmost importance and the consequences are secondary. On the other hand, a research involving cure for cancer is aimed at the end result and demands systematic and planned pursuit. Refer to line, "It is true…satisfaction of curiosity." Option (a) is incorrect because the passage only says that the consequences are of secondary importance, it does not say that there are no consequences. Option (b) is negated because the author nowhere says that the answer sought by a scholar is selfish. Option (d) is incorrect as it is not mentioned in the passage.

46. d It can be inferred from the passage that idle curiosity means 'a desire to know about something without a particular reason.' Hence, (d) is correct.

47. b

48. b When a present continuous tense is changed into passive voice, the auxiliary verb in the sentence changes to 'is/are being'. So, options (a) and (c) are eliminated. Option (d) is incorrect as 'being done well' has been changed to 'well done' which is an adjective.

49. b Statement B is incorrect because the correct idiom is 'fall prey to' and not 'fallen a prey to'. 'Fall prey to' means to be put into such a vulnerable position as to be at risk of harm, destruction, or invasion. 'Prying' means offensive inquisitiveness.

50. d The answer can be found in the second paragraph of the passage. Sangwan-Vemuganti team uses stem cells found in the tissues of living adults and not the ones derived from embryos. The passage says that scientists all over the world have tried similar experiments, but have had bad outcomes. Hence, (d) is correct. Options (a) and (c) are contradictory to the information given in the second paragraph. Option (b) is incorrect because the team is praised for perfecting the procedure and not for having customized labs.

51. c The first paragraph says that the team implants cornea in patients with damaged eyes.

52. a Refer to the first line of the fifth paragraph, "Indians are well known for engineering, meaning **they can deduce how drugs are made** in order to produce generic versions."

53. c Refer to the fifth paragraph, "…Sangwan and Vemuganti, a pathologist, **developed the technique on their own from reading papers and running experiments in the lab."**

54. d 'Generic' is mentioned in the fifth paragraph. The author says that Indians apply reverse engineering in order to produce generic versions of the drugs. So, it is implied that they try to deduce how the branded drugs are made and then produce the non-branded versions of the same. 'Platform' is mentioned in the first line of the sixth paragraph. Since the paragraph talks about the various methods involved in developing a suitable place for growing corneas, so 'platform' refers to the methodology involved. Hence, (d) is correct.

55. d 'Insidious' is subtle. 'Elusive' means difficult to define or describe.

56. b A comma is used to set off parenthetical elements. Parenthetical element refers to the added information in the sentence. The added information in the given sentence is, 'who is from the village'. The correct way of writing the sentence will be, 'My mother, who is from the village, is very superstitious.' Option (c) is incorrect as a semicolon is used to connect two independent clauses, but the given sentence does not have any independent clauses. An 'apostrophe' is either used with contractions or to show possession.

57. a 'Them' is an objective pronoun, so it cannot be used with 'those' in the given sentence. 'They' is a subjective pronoun and is correctly used in Sentence 2. Hence, (a) is correct.

58. a As per the passage, CBD has been established to sustain the growth of bio-diversity. But TRIPs is against the ideas of CBD. Refer to the third and fifth paragraph of the passage. So, option (a) is correct. Options (b), (c) and (d) are contradictory to the information given in the passage.

59. a The third paragraph says that a high number of countries have signed both the treaties. So. option (a) is correct. Option (b) is incorrect because it is a generalized statement and it cannot be inferred that which genetic base is the author referring to. Option (c) is illogical as it talks about the 'confessional attitude', which is nowhere implied in the passage. Option (d) is incorrect because the author is not supportive of any of the treaties. Furthermore, the question asks that what has been **said by the author** and option (d) begins by stating, "The **author is supportive** of…" It is logically inconsistent.

60. a Refer to last few lines of the fourth paragraph, ' …170 countries signed…names (130) in both.' It is implied that the total number of countries who signed CBD was 170 and the total number of countries who signed TRIPs also was 130. Now, 130/170*100 = 76.5%. Hence, (a) is correct.

61. b The answer lies in the last paragraph, 'While in case…disease and epidemics.'

62. a Direct reference from the first paragraph, "…that apply to…endowments and history." So, it can be inferred that no differentiation has been made between countries irrespective of their development. Hence, (a) is correct.

63. *d 'Equivocate' pertains to being deliberately ambiguous or unclear in order to mislead or withhold information. 'Repudiate' means to condemn with disapproval or condemnation. 'Prevaricate' is to speak or act falsely or evasively with intent to deceive. 'Disparage' is to regard or represent as being of little worth.

The question is incorrect because 'prevaricate' and 'equivocate' are synonyms. So, both (b) and (d) are correct.

64. d The correct spelling is 'berserk.'

65. *a The question is incorrect because only Statements 1 and 2 are similar in meaning. But none of the options have a combination of the two statements. In Statement 1, the person asking the question wants to know if there was any checking at the airport. Statement 2 conveys the same. In Statement 3, the subject questions if there is any requirement of checking at the airport. In statement 4, the subject asserts that there should have been checking at the airport.

66. d In options (a) and (c), 'concerned' precedes 'authority'. Here 'concerned' acts as an adjective. 'Concerned authority' means that the authority is troubled or worried. Whereas 'authority concerned' refers to the authority that is dealing with the issue. In latter, 'concerned' acts as a verb. Hence, (a) and (c) are eliminated. In option (b), 'report' has been placed before 'once'. 'Once' is an adverb of frequency. As per the grammar rule, adverbs of frequency are put directly before the main verb. So, (b) can be eliminated. Hence, option (d) is correct.

67. d In statement 6, 'after' describes 'effect', so it acts as an adjective in the sentence.
In statement 8, 'after' answers the question 'when'. So, it acts as an 'adverb of time'.
In statement 5, 'after' joins the two parts of the sentence i.e. 'you may go' and 'having your lunch.' Hence, it is a conjunction here.
In statement 7, 'after' combines the verb 'hankering' with the noun 'jobs'. It acts as a preposition here.

68. c 'Neophyte' is a beginner or a novice and a 'veteran' is a person who is long experienced or practiced in an activity or capacity.

69. b 'Disabled' means physically challenged or handicapped. 'Flimsy' is unconvincing. 'Crippled' is to cause to lose the use of a limb or limbs. 'Lame' is weak and ineffectual. 'Lame' fits in sentences 1, 3 and 4. A 'lame excuse' means a weak excuse. A 'lame duck' is an ineffective person. No other word fits in more number of sentences, hence (b) is correct.

70. c A 'firefly' is a tropical American click beetle having bright luminous spots. A 'fire engine' is a large truck that carries firemen and equipment to the site of a fire. A 'fire escape' is a stairway (often on the outside of a building) that permits exit in the case of fire or other emergency. Fire stick is an inappropriate word, so option (c) is incorrect.

71. b Statement 2 is logically consistent with sentence I. 'to make the choices' refers to 'freedom' in sentence I. Statements 3 and 1 form a mandatory pair. 'which' in statement 1 refers to 'great responsibility' in statement 3. Sentence II logically follows statement 4. 'one reason' in sentence II refers to the reason mentioned in statement 4. Hence, the correct order is 2,3,1,4. So, option (b) is correct.

72. d The second paragraph talks about the business model described by the author. Vaatsalya is an example of the enterprise based on the business model in question. Refer to line "Vaatsalya is one…brings in profit." The last paragraph further says that 'For profit' entrepreneurs try expanding the business rapidly as they are answerable to investors. This makes option (d) correct. Option (a) is incorrect because these are 'For profit' enterprises and not 'no profit' enterprises. Option (b) is negated because these are social enterprises and charge a very nominal fee from the poor. Option (c) is incorrect because the passage doesn't say that these enterprises are set up on experimental basis.

73. b As per the passage, Acumen Fund is a US based social fund that **invests** in companies that target low income communities. The companies in other three options are examples of the 'For profit' enterprises. Hence, (b) is correct.

74. c Refer to the second paragraph," Vaatsalya is one…brings in profit." It explains that these social enterprises work towards getting financial returns by serving the poor. Refer to the last paragraph, "For profit entrepreneurs…the business rapidly." It says that these entrepreneurs expand the business rapidly. Hence, (c) is correct. Option (a) is incorrect because the example of a NRI has just been given to introduce the topic. Option (b) talks about affluent middle class professionals but that is not mentioned in the passage. Option (d) is beyond the scope of the passage.

75. d 'Malinger' means to feign illness or other incapacity in order to avoid duty or work. 'Wander' is to move about aimlessly or without any destination. 'Laze' means to stand around or be idle. 'Evade' means to avoid fulfilling, answering, or performing. Options (a), (b) and (c) can replace 'malinger' in the given sentence. Only option (d) doesn't fit in the sentence. 'Argue' means to debate.

76. b Statements 1 and 4 form a mandatory pair. 'tribe of Anglo-Indian first cousins' in statement 1 refers to the names of people mentioned in Statement 4. 'twenty two muslim sons of Felix Rotton' in statement 4 is linked to 'by various Indian wives' in statement 3. So, statements 3 should logically come after statement 4. In addition, statement 2 should precede statement 1 as 'Padre Rotton' has been introduced in 2 and statement 1 refers to him as 'the padre'. Thus, the correct sequence is 2,1,4,3. Hence, (b) is correct.

77. a Option (b) has a misplaced modifier. 'Crossing the road' has been placed inappropriately in the sentence. Option (c) can be eliminated because usage of 'across' makes the sentence illogical. In option (d) 'crossing the road' cannot be logically related to 'a scooterist almost hit me.' The sentence has a dangling modifier error. Hence, (a) is the correct answer.

78. b The error is in option (b). The correct sentence will be, 'so **that** we would be on time.'

79. d 'Din' means a jumble of loud, usually discordant sounds. 'Cacophony' refers to a harsh discordant sound. A 'racket' is a loud distressing noise. 'Cadence' is balanced, rhythmic flow, as of poetry or oratory. Hence, option (d) is the odd one.

80. d 'Caw' is the hoarse raucous sound that is characteristic of a crow and 'bellow' is the roar of a large animal, such as a bull.

So, bellow aptly fits in the blank. 'Bleat' refers to the characteristic cry of a goat or sheep. 'Snort' is a rough, noisy sound made by breathing forcefully through the nostrils, as a horse or pig does. 'Low' refers to the sound uttered by cattle.

81. c Let Principal be Rs. P and annual rate of interest be r%

$\therefore \frac{P \times r \times 4}{100} = \frac{7}{25}P \Rightarrow r = 7\%$.

82. d A year has 7 months with 31 days, 4 months with 30 days and 1 month with 28/29 days.

$\therefore$ Required probability = $\frac{1}{12}$

83. b Here, 2 steps of the first person = 3 steps of the escalator
$\therefore$ Steps taken by the first person

$= \frac{2}{2+3} \times 120 = \frac{2}{5} \times 120 = 48$

Also, 3 steps of the second person = 5 steps of the escalator
$\therefore$ Steps taken by the second person

$= \frac{3}{3+5} \times 120 = \frac{3}{8} \times 120 = 45$

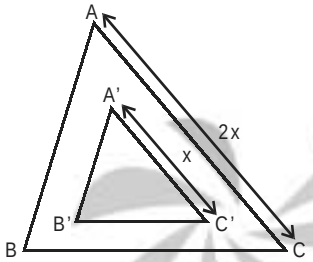
$\therefore$ Total number of steps = 48 + 45 = 93.

84. b Arranging the temperatures in ascending order, we get 66, 69, 70, 75, 77, 78, 78.
Here, median temperature, m = 75
Most frequent temperature, f = 78
And average, a

$= \frac{66 + 69 + 70 + 75 + 77 + 78 + 78}{7} = 73.29$

Hence, a < m < f.

85. d




Let A'B'C' be the flower bed and ABC be the boundary of the path.

Now, $\frac{\text{Area } \Delta A'B'C'}{\text{Area } \Delta ABC} = \left(\frac{1}{2}\right)^2 = \frac{1}{4}$ ($\because \Delta ABC \sim \Delta A'B'C'$)

$\therefore$ Area of the path = Area of $\Delta ABC$ – area of $\Delta A'B'C'$

$= 3 \times$ Area of $\Delta A'B'C'$

Hence, the required ratio is 3 :1.

86. a f(–3) = 3 – (–3) = 3 + 3 = 6

87. d Total names in the lottery = 3 × 100 + 2 × 150 + 1 × 200 = 800
Number of 3rd year students name = 100 × 3 = 300

$\therefore$ Required probability = $\frac{300}{800} = \frac{3}{8}$

88. c Let $x_1, x_2, \ldots x_9$ be the nine numbers.

$\therefore x_1 + x_2 + x_3 + \ldots + x_9 = 9M$ … (i)

Let $\frac{x_1 + x_2 + x_3}{3} = P$

$\therefore x_1 + x_2 + x_3 = 3P$ … (ii)

Again, the average of the remaining six numbers = N

$\therefore \frac{x_4 + x_5 + \ldots + x_9}{6} = N$

$\Rightarrow x_4 + x_5 + \ldots + x_9 = 6N$ …(iii)

Adding (ii) and (iii), we get

$9M = 3P + 6N$

$\Rightarrow 3M = P + 2N$.

89. a Since a cube is a three dimensional figure, so its intersection with another cube will be a two dimensional figure. Hence, option (a) is the correct answer.

90. b Let the number of overtime hours be x and the expected number of accidents be y.
$\therefore$ y = mx + c, where m and c are constants.
Given, when x = 1000, y = 8
$\therefore$ 8 = 1000 m + c … (i)
Again, when x = 400, y = 5
$\therefore$ 5 = 400 m + c … (ii)

Solving (i) and (ii), we get m = $\frac{1}{200}$ and c = 3.

Hence, in case of no overtime hours, the expected number of accidents, c = 3.

91. a Two rainy days will occur in every 20 days. Therefore, rainbow will occur on one day in every 20 days, i.e. the remaining 19 days will produce no rainbow.

$\therefore$ Required percentage = $\frac{19}{20} \times 100 = 95\%$.

92. c Let the number of balls in bag I, II and III be a, b and c respectively.
$\therefore$ a + b + c = 10 … (i)
**From statement (1):**
a – c = 5 … (ii)
We do not get any definite solution from (i) and (ii). Therefore, statement (1) alone is not sufficient.
**From statement (2):**

$b = \frac{1}{2}a$ … (iii)

We do not get any definite solution from (i) and (iii). Therefore, statement (2) alone is not sufficient.
Solving (i), (ii) and (iii), we get a = 6, b = 3 and c = 1.
Hence, both statements (1) and (2) together are sufficient to answer the question.

93. d Let the side of the square natural lake be x miles.
Given, area of the lake = $x^2 = 50$

$\therefore x = \sqrt{50}$ kms

$\therefore$ Diagonal of the square lake

$= \sqrt{2}\, x = \sqrt{2} \times \sqrt{50} = \sqrt{100} = 10$ kms.

94. c The four consecutive numbers will contain two even numbers, so their product, x will be even.

$\Rightarrow n = 1 + x$ will be odd.

Let the four consecutive numbers be a – 2, a – 1, a, a + 1.
Then n = 1 + x = 1 + (a – 2)(a – 1)a (a + 1)
$= 1 + 2a - a^2 - 2a^3 + a^4$, which is not necessarily a perfect square

Again, consider the natural numbers 1, 2, 3, 4
Here $x = 1 \times 2 \times 3 \times 4 = 24$
$\therefore n = 1 + 24 = 25$, non prime.
Hence, only (1) is correct.

95. * The word EXAMINATION has 6 vowels – 2 A, 1 E, 2 I and 1 O and 5 consonants – 1 M, 2 N, 1 T and 1 X.

Six vowels will occupy the six odd places in $= \frac{6!}{2! \times 2!}$ ways.

The remaining five positions will be occupied in $\frac{5!}{2!}$ ways.

$\therefore$ Total arrangements $= \frac{6!}{2! \times 2!} \times \frac{5!}{2!} = 180 \times 60 = 10800$.

*Correct answer not available in given options.

96. b Since the 6th and 16th child are standing diametrically opposite, they have (16 – 6 + 1) = 9 children standing between them on each side.
$\therefore$ Total number of children = 2 × 9 + 2 = 20.

97. c Let the number of apples and oranges bought be A and B at the rate of Rs.a and Rs.b respectively.
Given that $A + B = 40$ … (i)
Also, $Aa + Bb = 17$ … (ii)
And $Ab + Ba = 15$ … (iii)
Adding (ii) and (iii), we get
$A(a + b) + B(a + b) = 32$
$\Rightarrow (a + b)(A + B) = 32$

$\Rightarrow a + b = \frac{32}{40} = 0.80$ (Using (i)).

Hence, the cost of a pair of an apple and an orange is 80 paise.

98. d Sum of the digits of 311 = 3 + 1 + 1 = 5
So, the sum of the digits of the number consisting of 311 seven times = 5 × 7 = 35, which is not a multiple of 3.
Therefore, the given number is not divisible by 3.
Again, 311 is not divisible by 11, but 311311 is divisible by 11.
Following the same pattern, 311311311311311311 will not be divisible by 11.
Hence, the given number is divisible neither by 3 nor by 11.

99. b Let the man invest Rs. a at 6% in Bank A and Rs. b at 8% in Bank B respectively.
$\therefore a + b = 9000$ … (i)

Also, $\frac{a \times 6 \times 3}{100} + \frac{b \times 8 \times 3}{100} = 1800$

$\Rightarrow 3a + 4b = 30000$ … (ii)
Solving (i) and (ii), we get a = 6000
Hence, the man invested Rs.6000 at 6% in Bank A.

100. d Let the two trains be of length 'd' metres (say), consisting of 12 bogies each.
An addition of 4 bogies to one of the trains will increase its length by $\frac{d}{3}$ metres.

$\therefore$ Sum of the new lengths of the two trains

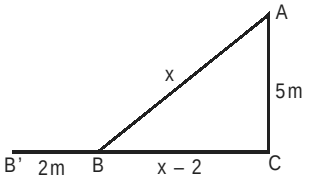
$= d + \left(d + \frac{d}{3}\right) = \frac{7d}{3}$ m

A distance of 2d metres is travelled in 2 minutes = 120 seconds

$\therefore \frac{7d}{3}$ m is travelled in $= \frac{120}{2d} \times \frac{7d}{3} = 140$ secs

$\therefore$ Additional time taken = 140 – 120 = 20 seconds

101. c




Let AB be the ladder of length x m.
Here B'C = x m (length of the ladder) and B'B = 2 m
Therefore, BC = (x – 2) m
Applying Pythagoras theorem,
$x^2 = (x - 2)^2 + 5^2$
$\Rightarrow x^2 = x^2 - 4x + 4 + 25$

$\Rightarrow x = \frac{29}{4} = 7.25$ m

Hence, length of the ladder is 7.25 m.

102. c Wheat production in 2003 = 4 × 1.2 = 4.8 lac tons.

103. a When wheat production is more than rice production, the ratio of wheat to rice production must be greater than 1, which is possible only in the years 2003 and 2004.

104. d Wheat production during 2001 = 3 × 0.45 = 1.35
Total grain produced in the state in 2001 = 3 + 1.35
= 4.35 lac tons
$\therefore$ Imported grain = 5 – 4.35 = 0.65 lac tons.

105. c **Using statement (1):**
Expenses in 2006-07 = Rs. 1,400 crores
Expenses in 2005-06 = Rs. 1,220 crores
As nothing is said about the sales and profit in the particular years, statement (1) alone is not sufficient.
**Using statement (2):**
Sales in 2006-07 = Rs. 4,300 crores.
Since nothing is mentioned about the expenses in the particular years, statement (2) alone is not sufficient.
**Using both statements (1) and (2):**
Profit in 2006-07 = Rs. (4,300 – 1,400) crores = Rs. 2,900 crores

$\therefore$ Profit in 2005-06 $= \frac{100}{132} \times 2900 =$ Rs. 2196.97 crores

$\therefore$ Sales in 2005-06 = Rs.1,220 + Rs. 2,196.97
= Rs. 3416.97 crores
$\therefore$ Increase in sales

$= \frac{4300 - 3416.97}{3416.97} \times 100 = 25.84\%$

Hence, both statements (1) and (2)are sufficient to answer the question.

106. c Percentage increase in the speed

$= \frac{70 - 40}{40} \times 100 = 75\%$

107. d The motion of the train is linear, so let the equation be v = mt + c, where v is the speed of the train and t is the time.
When t = 0, v = 40 $\Rightarrow$ c = 40
When t = 30, v = 45 $\Rightarrow 45 = 30m + 40$

$\Rightarrow m = \frac{1}{6}$

Hence, the speed of the train $= \frac{t}{6} + 40$.

108. d 2½ hours consists of 150 minutes and the corresponding speed is 65 km/hour.

109. d Since no relationship between the bundled offer prices and individual prices has been given, we cannot answer the question even by combining the two statements.

110. c **Statement X:**
The percentage increase in Managerial candidates is more than 50% while the increase in Technical candidates is around 3% only. Hence, statement X is true.

**Statement Y:**
Total registrations in 2004 = 61,205 + 19, 236 = 80,441
in 2005 = 63,298 + 45,292 = 1,08,590

$\therefore$ Percentage increase = $\frac{108590-80441}{80441}\times 100 \approx 35\%$

Hence, statement Y is true.

111. a **Statement X:**
Percentage of Managerial dropouts who posted their CV's in

2004 = $\frac{19236-15389}{15389}\times 100 \approx 25\%$

in 2005 = $\frac{45292-40763}{40763}\times 100 \approx 11\%$

Hence, statement X is true.

**Statement Y:**
Percentage of Technical dropouts in 2005
= $\frac{63298-60133}{60133}\times 100 \approx 5\%$, which is less than the percentage of Managerial dropouts in the same year.
Hence, statement Y is false.

112. b **Statement X:**
Success rate of Managerial candidates getting shortlisted in

2005 = $\frac{399}{40763}\times 100 = 0.97\%$ and for Technical candidates

= $\frac{637}{60133}\times 100 = 1.06\%$

Hence, statement X is false.

**Statement Y:**
Success rate of Managerial candidates getting shortlisted in

2004 = $\frac{138}{15389}\times 100 = 0.89\%$, which is clearly lesser than the success rate for the Managerial candidates in 2005.
Hence, statement Y is true.

113. d **Statement X:**
In 2004, jobs offered : number of CV's posted for Technical

category = $\frac{181}{59981} = 0.003$ and for Managerial category =

$\frac{48}{15389} = 0.00311$

Hence, statement X is false.

**Statement Y:**
In 2004, success rate in securing jobs by Technical category

= $\frac{181}{684}\times 100 = 26.46\%$ and by Managerial category =

$\frac{48}{138}\times 100 = 34.78\%$.

Hence, statement Y is false.

114. c TCS on NQE showed a decrease on the particular day.
Percentage increase in SIFY on BSE

= $\frac{247-232}{232}\times 100 = 6.46\%$,

in INFY on NQE = $\frac{10.5-9.5}{9.5}\times 100 = 10.5\%$ and

in Wipro on NQE = $\frac{6.5-5.5}{5.5}\times 100 = 18.18\%$.

Hence, Wipro on NQE showed the highest percentage increase.

115. d Maximum percentage profit for SIFY

= $\frac{232-21\times 11}{21\times 11}\times 100 = \frac{1}{231}\times 100 = 0.43\%$

for INFY = $\frac{105-9.5\times 11}{9.5\times 11}\times 100 = \frac{0.5}{104.5}\times 100 = 0.47\%$

for Wipro = $\frac{5.5\times 11-60}{5.5\times 11}\times 100 = \frac{0.5}{60.5}\times 100 = 0.83\%$

for TCS = $\frac{450-40.5\times 11}{40.5\times 11}\times 100 = \frac{4.5}{445.5}\times 100 = 1.01\%$

Of the four companies, the percentage profit is highest for TCS.

116. a Total price of the 15% equity of SIFY

= $\frac{1}{2}\times(15\%\text{ of }10^6)\times 247 + \frac{1}{2}\times(15\%\text{ of }10^6)\times 232$

= $(7.5\times 10^4)\times(247+232) \approx 36$ million

117. b Number of employees in Administration in 2005 = 22% of 18000 = 3960
Total salary expense of Administration
= 12000 × 3960 = Rs.47520000 ≈ Rs.4.7 crores.

118. c Percentage increase in number of employees in Sales & Marketing = $\frac{20\%\text{ of }20000-18\%\text{ of }18000}{18\%\text{ of }18000}$

= $\frac{4000-3240}{3240}\times 100 = 23.45\%$

119. c

| Year | 2005 | 2006 | Increase |
|---|---|---|---|
| A | $\frac{22}{100}\times 18000 = 3960$ | $\frac{24}{100}\times 20000 = 4800$ | 840 |
| B | $\frac{23}{100}\times 18000 = 4140$ | $\frac{26}{100}\times 20000 = 5200$ | 1060 |
| D | $\frac{29}{100}\times 18000 = 5220$ | $\frac{20}{100}\times 20000 = 4000$ | -1220 |
| E | $\frac{8}{100}\times 18000 = 1440$ | $\frac{10}{100}\times 20000 = 2000$ | 560 |

Maximum variation is in D where the strength decreases by 1220.

120. c Number of employees in Operations in 2005 = 4140
Number of employees left at the end of 2005 = 300
$\therefore$ Number of new joinees in Operations in 2006
= 5200 – (4140 – 300) = 1360

121. a

| Gold | Silver | Gold or Silver |
|---|---|---|
| Chest1 | Chest 2 | Chest 3 |

It is given that all the labels are wrong. Therefore, chest 3 will contain neither Gold nor Silver i.e, it will contain Bronze.
Chest 2 will not contain Silver, thus, it will contain Gold and chest 1 will contain Silver.
Hence, no chest needs to be opened to deduce which label shall go on which chest.

122. b 12:00 noon – 10:27 a.m. = 1 hour 33 minutes = 60 + 33 = 93 minutes.

**For questions 123 to 125:**
Miss Harsha is in 5, she has non-smokers on either sides i.e 4 and 6. Mr. Brar cannot go to 6 as he needs Mr. Minhas as his neighbour, which means Miss Ruby is at 6 and Mr. Brar at 4. Since Mr. Dongre needs silence, he should be farthest from Ruby. Minhas should ideally be at 3 so that he can consult Brar who is at 4.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| D | T | M | B | H | R |

123. d 124. d

125. d If option (d) occurs, Mr. Tanjore would not to use telephone throughout the day and Mr. Dongre requires silence in the offices next to his and this would create problem for Mr. Dongre.

126. d Since Jwala and Shankar are unwilling to work together in a committee and Chaya is not appointing anyone against their consent, therefore, either of Jwala or Shankar can be appointed, but not both.

127. c Ideally, the two totals – Withdrawals and Balance left – need not be equal. The Withdrawal column will definitely add up to the amount withdrawn, Rs.100 but the balance left can add up to any number since it is based on cumulative values.

128. d The three figures in each row and column has 2, 3 and 4 legs. Also, the top portion has one of  , in each column and row, without repetition. Each row and column has only one figure consisting of legs with a tail. Hence, figure 5 will replace the question mark.

129. c In the first pair, the number of sides increases by 1 (Triangle – 3 and Quadrilateral – 4).
So, in the second pair, the missing figure will be a pentagon, which is figure 3.

130. c The shaded block is moving one step in clockwise direction. Hence, option (c) is the correct answer.

**For questions 131 to 133:**
The given information can be tabulated as below:

| Person | Starting Salary | Profession |
|---|---|---|
| Dhruv | Rs.40,000 | Engineer |
| Chinmay | Rs.50,000 | Doctor |
| Biswajeet | Rs.60,000 | Lawyer |
| Arvind | Rs.70,000 | MD |

131. c 132. c 133. a

134. b The first time the man rests is a Tuesday.
He starts working from Wednesday and the second time he rests will be a Thursday.
Similarly, the third time he rests is a Saturday. The pattern is that there is a difference of two days in the resting days. Hence, the 12th time he shall rest on is a Wednesday.

135. b Figures 2, 3 and 7 rotated in any way cannot be like figures 1, 4, 5 and 6.

136. a Babloo said:

| Tanmay won the race | ; | Waman was in the second place |
|---|---|---|
| False | | True |

Bunty said:

| It was Snehal who won | ; | Tanmay came second |
|---|---|---|
| True | | False |

Hence, the actual placing is:

| Snehal | ; | Waman | ; | Tanmay |
|---|---|---|---|---|
| 1 | | 2 | | 3 |

137. b The routes are: P-1-4-Q, P-1-5-Q, P-2-4-Q, P-2-5-Q, P-3-5-Q and P-3-4-Q.

138. a The words formed from the second, third and fourth circles are 'SCANTY', 'ASCENT' and 'CHASTE'.
The first circle will not yield any meaningful word.

139. b

| 1 | 13 | 3 | 15 |
|---|---|---|---|
| 11 | 9 | 7 | 5 |
| 12 | 2 | 14 | 4 |

140. b The pattern is:

$$2\times\left(\frac{6\times 8}{8}\right)=12$$

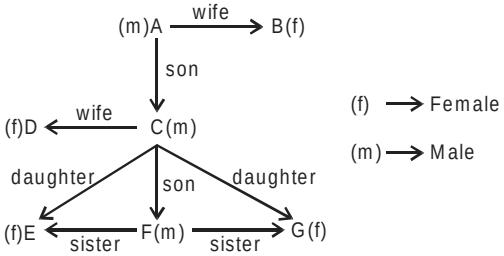
$$2\times\left(\frac{5\times 6}{10}\right)=6$$

Therefore, $2\times\left(\frac{3\times 2}{4}\right)=18$.

**Alternate method:**
The pattern followed is:
12 × 8 = 96 = 2 × 48 = 2 × (6 × 8)
6 × 10 = 60 = 2 × 30 = 2 × (5 × 6)
**18** × 4 = 72 = 2 × 36 = 2 × (3 × 12)
Hence, missing number is 18.

141. b


142. d




Hence, there are a total of 7 persons in the family reunion.

143. c Let the player start the game with a bet of a rupee.
Total number of outcomes when 3 dice are thrown
$= 6^3 = 216$
Number of cases when a particular number selected appears on:
none of the dice = (5 × 5 × 5) = 125

one of the dice $= \left({}^3C_1 \times 5 \times 5\right) = 75$

two dice $= \left({}^3C_2 \times 5\right) = 15$

three dice = 1 = 1
∴ Expected return of the operator = 125 × 1 + 75 × (–1) + 15 × (–2) + 1 × (–3) = Rs.17

$\therefore$ Gain percentage of the operator $= \frac{17}{216} \times 100 = 7.8\%$

144* If Jaideep enters a shop with Rs.x in hand, then amount left with him after spending in that shop is

$\text{Rs.}\left(x - \left(\frac{x}{2} + 1\right)\right) = \text{Rs.}\left(\frac{x}{2} - 1\right)$

In the fifth shop, Jaideep has no money left with him

$\therefore \frac{x}{2} - 1 = 0 \quad \Rightarrow \quad x = 2$

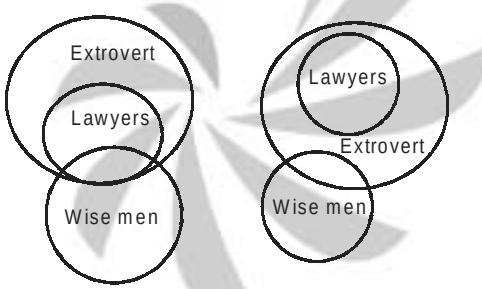
Further calculations lead to the following table:

| Shop | Initial amount (in Rs.) | Amount spent (in Rs.) | Amount left (in Rs.) |
|---|---|---|---|
| 1 | 62 | 32 | 30 |
| 2 | 30 | 16 | 14 |
| 3 | 14 | 8 | 6 |
| 4 | 6 | 4 | 2 |
| 5 | 2 | 2 | 0 |

Hence, Jaideep initially had Rs.62 with him.

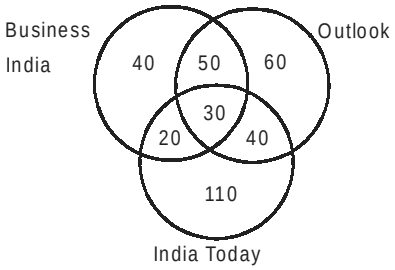
* Correct answer not available in given options.

145. d Two cases are possible:




Hence, only option (d) follows.

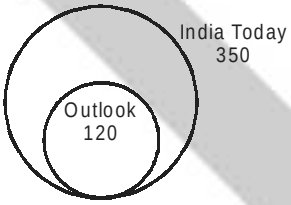
**For questions 146 to 148:**




146. b Total number of students surveyed
= 40 + 50 + 60 + 20 + 30 + 40 + 110 = 350

147. d Number of students who did not read Business India = 110 + 40 + 60 = 210

148. c




Number of students who read only India Today = 350 – 120 = 230

149. c The argument says that coffee can cause cancer because RTC (an ingredient in coffee) inactivates common cold viruses and inactivated common cold viruses convert healthy cells into cancer cells. Option (c) says that RTC kills common cold viruses resulting in a weak immune system. This reduces the body's ability to fight against viruses linked to cancer. So, it is implied that a **weak immune system is the cause of cancer and not coffee.** Option (a) only provides added information. It does not affect the argument. Option (b) is incorrect because the argument doesn't say that RTC has carcinogenic effect, it only says that RTC inactivates common cold viruses. Option (d) can be negated because prevention of common cold has no relation with causing cancer. Hence, (c) is correct.

150. a The possible ages of the three children can be – (1, 1, 36), (1, 2, 18), (1, 3, 12), (1, 4, 9), (1, 6, 6), (2, 2, 9), (2, 3, 6) and (3, 3, 4). Then sum of their ages are 38, 21, 16, 14, 13, 13, 11 and 10 respectively. If the next door address is 10, then the ages of the three children will be clear and the census taker need not return to fetch additional information. Similar is the case when the sum of their ages is any number other than 13. When the next door address is 13, the possible ages of the children are (2, 2, 9) and (1, 6, 6). Since the mother says that her oldest child is asleep, hence, the ages of the children are 2, 2, and 9 years.