ANSWERS WITH EXPLANATIONS

1. (a) Considering the two vowels E and A as one letter, the total no. of letters in the word 'EXTRA' is 4 which can be arranged in ${}^4P_4$, i.e. 4! ways and the two vowels can be arranged among themselves in 2! ways.
$\therefore$ reqd. no. $= 4! \times 2! = 4 \times 3 \times 2 \times 1 \times 2 \times 1 = 48$

2. (b) $AC^2 = AB^2 + BC^2 \Rightarrow AC = 10$

We have $r = (A/s)$; $A = \frac{1}{2} \times (6 \times 8) = 24$

$s = (6 + 8 + 10)/2 = 12$

$r = A/s = 24/12 = 2$.

3. (c)

4. (b) A and B are mutually exclusive and exhaustive events with
$P(A \cap B) = 0, P(A \cup B) = 1$
we know that
$P(A \cup B) = P(A) + P(B) - P(A \cap B)$
$\Rightarrow \quad 1 = P(A) + 3P(A)$

$\Rightarrow \quad P(A) = \frac{1}{4} \qquad \therefore \quad P(B) = \frac{3}{4}$

Hence, $P(\bar{B}) = 1 - P(B) = 1 - \frac{3}{4} = \frac{1}{4}$

5. (c) A : B : C = (16000 × 3 + 11000 × 9) : (12000 × 3 + 17000 × 9) : (21000 × 6) = 147 : 189 : 126 = 7 : 9 : 6.
$\therefore$ Difference of B and C's shares

$$= ₹\left(26400 \times \frac{9}{22} - 26400 \times \frac{6}{22}\right) = ₹\ 3600$$

6. (b) Let the usual speed of the aeroplane be x km/h.

Then, $\frac{1500}{x} - \frac{1}{2} = \frac{1500}{(x + 250)}$

$$\frac{1500}{x} - \frac{1500}{x + 250} = \frac{1}{2} \Rightarrow \frac{1500x + 3750000 - 1500x}{x(x + 250)} = \frac{1}{2}$$

$\Rightarrow 750000 = x^2 + 250x$ or $x^2 + 250x - 750000 = 0$
$\Rightarrow x^2 + 1000\,x - 750\,x - 75000 = 0$
$\Rightarrow (x + 1000)(x - 750) = 0 \Rightarrow x = 750, -1000$
Speed cannot be negative
We get $x = 750$ km/h

7. (a)
$$6\overline{)4456}\,(742$$
22
25
24
16
12
4

Required number = (6 – 4) = 2

Hence, 2 must be added to 4456 so that it must be divisible by 6.

8. (d) $\frac{OP}{PT} = \tan 30° = \frac{1}{\sqrt{3}} \Rightarrow PT = \sqrt{3}\ OP = 3\sqrt{3}$ cm.

9. (c) $\log_{3^2} 5^4 \times \log_{5^2} 3^4$.

$$= \frac{4}{2} \log_3 5 \times \frac{4}{2} \log_5 3$$
$$= 4 (\log_3 5 \times \log_5 3) = 4 \times 1 = 4.$$

10. (a) $\frac{1}{100} \times \frac{1}{100} \times \frac{25}{100} \times 1000 = 0.025$

11. (a)

12. (b) Suppose E_1, E_2 and E_3 are the events of winning the race by the horses A, B and C respectively

$$\therefore P(E_1) = \frac{1}{1+3} = \frac{1}{4}, \quad P(E_2) = \frac{1}{1+4} = \frac{1}{5}$$

$$P(E_3) = \frac{1}{1+5} = \frac{1}{6}$$

$\therefore$ Probability of winning the race by one of the horses A, B and C
$= P(E_1 \text{ or } E_2 \text{ or } E_3) = P(E_1) + P(E_2) + P(E_3)$

$$= \frac{1}{4} + \frac{1}{5} + \frac{1}{6} = \frac{37}{60}$$

13. (d) Let B puts = x cows

then amount paid by $B = \frac{3}{2} \times$ amount paid by A.

$$\therefore \frac{80 \times 7}{x \times 3} = \frac{\text{amount paid by } B}{3/2 \times \text{ amount paid by } A}$$

$$\Rightarrow x = \frac{80 \times 7 \times 3}{3 \times 2} = 280 \text{ cows}$$

14. (d) C.P. = $₹\left(\frac{100}{105} \times 630000\right) = ₹\ 600000.$

$$\therefore \text{ Required loss \%} = \left(\frac{100000}{600000} \times 100\right)\% = 16\frac{2}{3}\%.$$

15. (a) The middle number = Sum of the first six + Sum of the the last six – Sum of all the 11
$= 6 \times 10.5 + 6 \times 10.5 - 11 \times 10.9$
$= 63 + 68.4 - 119.9$
$= 11.5$

16. (b) $(A + B)$'s 5 days' work

$$= 5\left(\frac{1}{25} + \frac{1}{20}\right) = \frac{45}{100} = \frac{9}{20}$$

$$\text{Remaining work} = \left(1 - \frac{9}{20}\right) = \frac{11}{20}$$

$\frac{11}{20}$ of the work would be finished by B in

$$\frac{\frac{11}{20}}{\frac{1}{20}} = 11 \text{ days.}$$

17. (c) Rate of interest = $\frac{956 - 800}{3 \times 800} \times 100 = 6.50\%$

$\therefore$ Amount = $800 + \frac{800 \times 9.5 \times 3}{100}$

= 800 + 228 = ` 1028

18. (c) Let the husband and the wife meet after x minutes. 4500 metres are covered by Pradeep in 60 minutes.

In x minutes, he will cover $\frac{4500}{60}x$ metres.

Similarly,

In x minutes, his wife will cover $\frac{3750}{60}x$ m.

Now, $\frac{4500}{60}x + \frac{3750}{60}x = 726$

$\Rightarrow \quad x = \frac{726 \times 60}{8250} = 5.28 \text{ min}$

19. (a) $16a^2 - 12a = (4a)^2 - 2(4a)(3/2)$

$\therefore$ The number is $(3/2)^2 = (9/4)$.

20. (a) Let the monthly salary of A be x, monthly salary of B is (40000 – x).

Savings of A = (100 – 85)% of x = 0.15x

Savings of B = (100 – 95)% of (40000 – x)

= 0.05 (40000 – x)

$0.15x = 0.05(40000 - x)$

$\Rightarrow 0.15x + 0.05x = 40000 \times 0.05$

$\Rightarrow 0.2x = 2000$

$\Rightarrow x = 10000$

21. (b) Let the smaller number by x. Then larger number = (x + 1365).

$\therefore \quad x + 1365 = 6x + 15 \Rightarrow 5x + 1350 \quad \therefore x = 270$

$\therefore$ Smaller number = 270.

22. (b) In ΔBCD, $BC = CD$, $\angle BDC = \angle CBD = x$

In cyclic quadrilateral $ABCD$, $\angle ABC + \angle ADC = 180°$

$40° + x + 90° + x = 180° \Rightarrow x = 25°$.

23. (d) Total number of balls = 8. Let the first drawn ball is white, so required probability = $\frac{5}{8} \times \frac{3}{7} \times \frac{4}{6} \times \frac{2}{5} = \frac{1}{14}$.

But here we had started with a white ball. When we start with a black ball, the required probability

$= \frac{3}{8} \times \frac{5}{7} \times \frac{2}{6} \times \frac{4}{5} = \frac{1}{14}$.

Since these two cases are mutually exclusive.

Total probability = $\frac{1}{14} + \frac{1}{14} = \frac{2}{14} = \frac{1}{7}$.

24. (a) $x + \log_{10}(1 + 2^x) = x \log_{10} 5 + \log_{10} 6$

$\Rightarrow \quad \log_{10} 10^x + \log_{10}(1 + 2^x) = \log_{10} 5^x.6$

$\Rightarrow \quad 10^x(1 + 2^x) = 5^x.6 \Rightarrow 2^x(1 + 2^x) = 6$

25. (d) Neither $2^{-x.x}$ nor $2^{x-x.x.x.x}$ is an odd function as for neither of them is $f(x) = -f(-x)$

26. (c) Surface area of the cube = (6×8^2) sq. ft. = 384 sq. ft.

Quantity of paint required = $\left(\frac{384}{16}\right)$ kg = 24 kg.

$\therefore$ Cost of painting = ` $(36.50 \times 24)$ = ` 876.

27. (d) Total distance covered by horse in $2\frac{1}{2}$ seconds

$= 66 \times \frac{5}{2} = 165 \text{m}$

Radius of the field = $\frac{165}{2\pi} = \frac{165 \times 7}{2 \times 22} = 26.25 \text{m}$

28. (d) Quantity of salt = 5% of 6l = 300 ml

Quantity of water = 6000 ml – 300 ml = 5700 ml

Quantity of water left after evaporation

= (5700 – 100) ml = 4700 ml

% of salt = $\frac{300 \text{ ml}}{(4700 + 300) \text{ ml}} \times 100 = 6\%$

29. (b) The answer will be 50 since, 125×122 will give 50 as the last two digits.

30. (d) Let the original fraction be $\frac{x}{y}$. Then,

$$\frac{\frac{300x}{100}}{\frac{300y}{100}} = \frac{14}{5} \Rightarrow \frac{x}{y} = \frac{14}{5}$$

31. (a) $\frac{\frac{1}{2} \div \frac{1}{2} \times \frac{1}{2}}{\frac{1}{2} + \frac{1}{2} \times \frac{1}{2}} = \frac{\frac{1}{2} \times 2 \times \frac{1}{2}}{\frac{3}{4}} = \frac{1}{2} \times \frac{4}{3} = \frac{2}{3}$

32. (c) Let total distance be d.

time taken for 60% distance = $\frac{0.6d}{40} = \frac{3d}{200}$ h

time taken for 20% distance = $\frac{0.2d}{30} = \frac{d}{150}$ h

time taken for remaining 20% distance

$= \frac{0.2d}{10} = \frac{d}{50}$ h

$$\text{average speed} = \frac{d}{\frac{3d}{200}+\frac{d}{150}+\frac{d}{50}}$$

$$= \frac{200\times150\times50}{22500+10000+30000} = \frac{200\times150\times50}{62500}$$

$$= 24 \text{ kmph}$$

33. (d)

34. (b) Out of 100 tickets only below given tickets are those which has the digit 2 appearing on it.
2, 12, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 32, 42, 52, 62, 72, 82, 92.
Thus, no. of tickets = 19, Total tickets = 100

$\therefore$ Required probability $= \frac{19}{100}$.

35. (d) Train takes 20 seconds to cover its length and 36 seconds to cross the platform, it mean it has taken 16 second at 54 km/hr to cross the length of platform.
$\therefore$ Length of the platform
= Distance × Time
$= 54 \times 16$ km / hr

$$= 54\times16\times\frac{5}{18} \text{ m/sec}$$

= 240 m.

36. (d) Total number of employees in accounts department
= 8% of 4600 = 368

$\therefore$ Number of women $= \frac{368}{(3+1)}\times1 = 92$

37. (d) Total number of employers in IT and HR departments
= (26 + 11)% of 4600

$$= \frac{37}{100}\times4600 = 1702$$

38. (e) Total number of men in all the departments

$$= \left[\left(\frac{11}{2}\times1\right)+\left(\frac{8}{4}\times3\right)+\left(\frac{15}{5}\times3\right)+\left(\frac{26}{4}\times1\right)+\left(\frac{22}{2}\times1\right)+\left(\frac{18}{6}\times1\right)\right]\% \text{ of } 4600$$

= (5.5 + 6 + 9 + 6.5 + 11 + 15)% of 4600
= 53% of 4600
Total number of women in all the departments

$$= \left[\left(\frac{11}{2}\times1\right)+\left(\frac{8}{4}\times1\right)+\left(\frac{15}{5}\times2\right)+\left(\frac{26}{4}\times3\right)+\left(\frac{22}{2}\times1\right)+\left(\frac{18}{6}\times1\right)\right]\% \text{ of } 4600$$

= (5.5 + 2 + 6 + 19.5 + 11 + 3)% of 4600
= 47% of 4600
Hence, required ratio = 53 : 47

39. (a) Number of women is merchandising department

$$= \frac{1}{6} \text{ of } 18\% \text{ of } 4600$$

Total number employees in the organization = 4600
Then, required percentage

$$= \frac{\frac{1}{6}\text{ of } 18\% \text{ of } 4600}{4600}\times100\%$$

= 3%

40. (b) Number of men in the production department

$$= \frac{3}{5} \text{ of } 15\% \text{ of } 4600$$

Number of men in marketing department

$$= \frac{1}{2} \text{ of } 22\% \text{ of } 4600$$

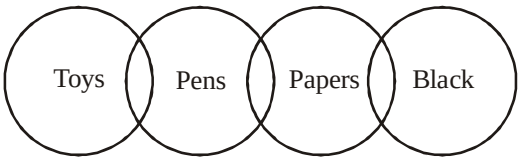
Then, required ratio $= \frac{3}{5}$ of 15% of 4600 : $\frac{1}{2}$ of 22% of 4600

$$= \frac{3}{5}\times15 : \frac{1}{2}\times22 = 9:11$$

41. (b) Fifth and third letters of the first term are first and second letters of the second term and first two letters of the first term are third and fourth letters of the second term.

42. (c) Whisper is of lesser intense than shouting, so is walking to running.

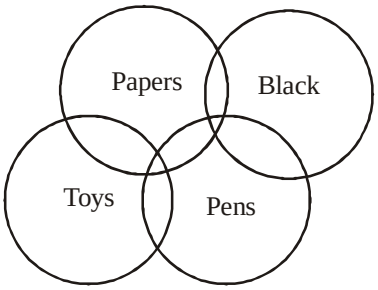
43. (c) All possible cases



I. False
II. False
III. False
IV. False

Either (II, III) — Either (I, II, III)

OR



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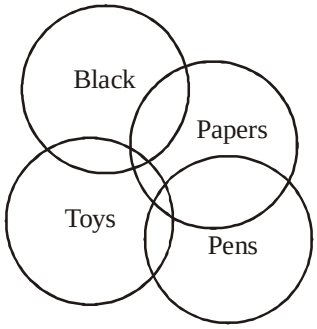


Altrernative Here, special case can be applied for Conclusions I and III. Also for Conclusion II and Conclusion IV.

44. (a) Let the total number of shots be x. then,

Shots fired by A = $\frac{5}{8}x$; Shots fired by B = $\frac{3}{8}x$

Killing shots by A = $\frac{1}{3}$ of $\frac{5}{8}x = \frac{5x}{24}$;

Shots missed by B = $\frac{1}{2}$ of $\frac{3}{8}x = \frac{3x}{16}$.

$\therefore \frac{3x}{16} = 27$ or $x = \left(\frac{27\times16}{3}\right) = 144$

Birds killed by A = $\frac{5x}{24} = \left(\frac{5}{24}\times144\right) = 30$

45. (b) The angle between hour hand and minute hand is given by

$\left[30H - \frac{11}{2}m\right]$

$\therefore 180 = \left[30\times9 - \frac{11}{2}M\right]$

$180 = 270 - \frac{11}{2}M$

$180 - 270 = \frac{-11}{2}M$

$-90 = \frac{-11}{2}M$

$M = \frac{180}{11} = 16\frac{4}{11}$

Hence, At $9:16\frac{4}{11}$ time, they both are opposite to each other.

46. (b) P × Q – S means P is the son of Q who is the wife of S i.e., P is the son of S or S is the father of P.

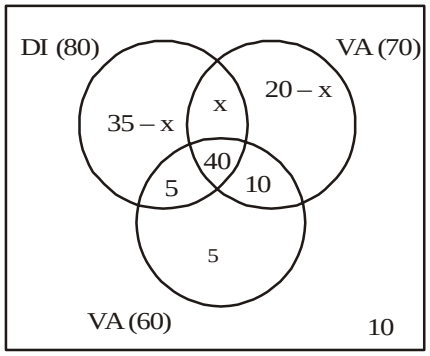
Solutions (47 to 50)

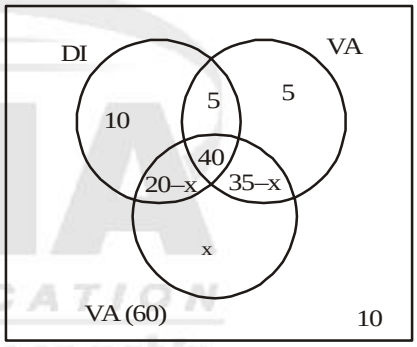
Since 40 students cleared cut off in all the three subject, while 50 students cleared cut off in VA and QA hence number of students who cleared cut off in only VA and QA is 50-40 =10

5 students cleared cut off in only QA hence number of students who cleared cut off in only DI and QA is 60- 40-10-5 =5.

Let number of students who cleared cut off in only DI and VA is x the venn diagram is as shown.

Draw a similar venn diagram based on the facts about the subjects in which students failed to clear the cut off.





47. (a) From the venn diagram range $x \le 20$

Total number of students = 125-x , for minimum value of this x should be maximum.

Minimum total number of students = 125-20 = 105.

48. (c) From the 2nd venn diagram number of students who didn't clear cut off in exactly 2 subjects is 5 + (35-x) + (20-x) = 60-2x, for minimum value x = 20

So required minimum value = 60 -2x20 = 20

49. (b) From the given condition 70-2x is maximum when x = 0, then required value is 10 + 5+ x = 15+0 =15

50. (a) From the given condition (10+5)/5 = 15/5 = 3/1

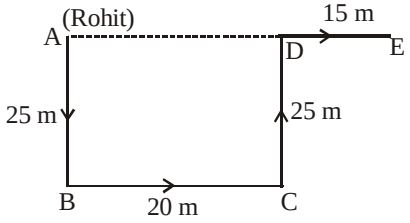
51. (b)

	Palace	Hut	Fort	House	Hotel
P (Blue & Red)	×				
M (Yellow)					
U (Red or Blue)	×				
T (Black)	×				
X	×	×	×	×	✓

From the table we have eliminated all four except M for Palace, hence M will stay in Palace

52. (d) According to Sangeeta, the father's birthday falls on one of the days among 9th, 10th, 11th and 12th December. According to Natasha, the father's birthday falls on one of the days among 10th, 11th, 12the and 13th December.
The days common to both the groups are 10th, 11th and 12th December. So, the father's birthday falls on any one of these days.

53. (a) The movements of Rohit are as shown in figure.
Rohit's distance from starting point A = AE
= (AD + DE) = (BC + DE) = (20 + 15) m = 35 m.
Also, E is to the East of A.



54. (d) Both conclusions I and II does not follow because problem solving is the best way not only way.

Solutions (55 to 58)
The final result

	Eldest	2nd	3rd	4th	5th	6th	7th	youngest
Child	Sourav	M / N	M / N	Kuntala	Tamanna	Arun	Rohit	Janki
School	Trinity	Mansorover	Mansorover	Trinity	St. Stefan	St. stefan	St. stefan	Trinity
Game		cricketers	cricketers	Chess		football	hockey	

55. (c) 56. (a) 57. (d) 58. (b)

59. (a) The argument's premises boil down to the following:
1. Wendy is a student who plays backgammon.
2. All students play either chess or checkers, but no backgammon player plays checkers.
Based on these premises we can conclude that Wendy plays chess. In order to also conclude that Wendy understands chess strategy, we must assume that all chess players understand chess strategy:
Premise: X is an A.
Assumption: All A's are B's.
Conclusion: X is a B.
Statement (a) provides the assumption needed to draw the conclusion.

60. (c) I is implicit in the phrase "industrial ... pollution." II is not implicit because of the word 'only'. III is implicit from the concern shown at the "terrible price".

61. (d) The female members in the family are mother, wives of 3 married sons, unmarried daughter and 2 daughters of each of the two sons.
∴ Number of female members = (1 + 3 + 1 + 2 × 2)= 9

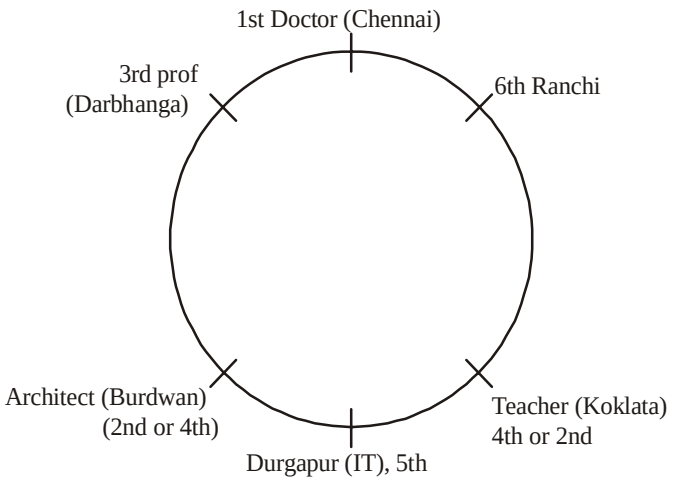
62. (c) If we split the alphabets in a group of 3 we get following arrangement
DEF/FDE/EFD/DEF/FDE/EF
Here, DEF are rotating in cyclic order.

63. (c) Number of alterations required in 1 shirt
$= \left(\frac{2}{3}+\frac{3}{4}+\frac{4}{5}\right) = \frac{133}{60}$
∴ Number of alterations required in 60 shirts
$= \left(\frac{133}{60}\times 60\right) = 133$

64. (b) People usually read the printed matter on the cigarette packet and they take careful note of the warning, hence the warning printed on the packet.

Solutions for questions 65 to 68:

	Durgapur	Ranchi	Kolkata	Darbhanga	Burdwan	Chennai
Teacher	Xxxx	Xxxx	✓	Xxxx	Xxxx	Xxxx
Architect	Xxxx	Xxxx	Xxxx	Xxxx	✓	Xxxx
Doctor	Xxxx	Xxxx	Xxxx	Xxxx	Xxxx	✓
IT professional	✓	Xxxx	Xxxx	Xxxx	Xxxx	Xxxx
.....	Xxxx	✓	Xxxx	Xxxx	Xxxx	Xxxx
Professor	Xxxx	Xxxx	Xxxx	✓	Xxxx	Xxxx



65. (a) 66. (b) 67. (d)
68. (a)
69. (c) A is 18th from front and C is 25th.
Number of persons between A and C = 6.
Since C is exactly in middle of A and B, so number of persons between C and B = 6.

17 → A ↔ 6 ↔ C ↔ 6 ↔ B ← 15

∴ Number of persons in the queue = (17 + 1 + 6 + 1 + 6 + 1 + 15) = 47

70. (a) (a) is the correct choice as the passage says that "efficiency is present everywhere, this makes it all pervading". The passage does not suggest that efficiency does not pay or can be more of a torture.
71. (d) The meaning of Native is "a person born in a specified place or associated with a place by birth, whether subsequently resident there or not". Therefore correct antonym is option (d).
72. (b) The meaning of Attenuate is "reduce the force, effect, or value of.". Therefore, correct antonym is option (b).
73. (d) The meaning of Cajole is "persuade (someone) to do something by sustained coaxing or flattery". Therefore correct antonym is option (d).
74. (d) The meaning of consanguinity'is "being such by blood and not by adoption or marriage". Therefore correct synonym is option (d).
75. (a)
76. (d) The correct spelling is pernicious.
77. (a) 78. (d) 79. (b) 80. (b)
81. (b) 82. (b) 83. (c) 84. (a)`
85. (b) 86. (c) 87. (c) 88. (c)
89. (c) 90. (c) 91. (c) 92. (d)
93. (b) It can be clearly seen in the passage, from the second paragraph onwards, that the different countries/groups had their motives behind the creation of the WTO in the 1990's. The most probable reason that the WTO did not get formed earlier could be that these motives were not being fulfilled, or even if they were, the countries were not really getting their share and probably assumed that the time was not really ripe for something like the WTO. Alternatively, options (a) and (c) can be negated from the outset as being too loaded for the author's style.
94. (b) All the different countries who agreed to the idea of the WTO in the Uruguay Round negotiation must have seen something in it that benefited them. The second paragraph shows that one of the biggest motivations for these countries was the introduction of the rules-based environment. Thus, option (b) seems to be the best choice. In fact, this line in the second paragraph gives a clear signal about the correct option: "U.S. Ambassador Kantor's defense … negotiated rules-based environment." Alternatively, option (a) is isolated and far¬fetched. It can be easily negated. Options (a) and (d) are not all inclusive or simply speaking are good in themselves but are not as good as option (b).
95. (a) According to the passage, the WTO promoted the three technical legal values in three different ways. Out of these three, only one has been clearly outlined in option (a). Through option (a), WTO was seen as upholding consistency. This is the best option and the only correct one. Alternatively, options (c) and (d) are opposite to the requisite answer. They seem to be referring to the reversed version of ideas for e.g. instead of saying that for "effectiveness, the WTO would eliminate exceptions arising out of grandfather-rights and resolve defects in dispute settlement procedures and institutional provisions", option (c) says that "WTO promoted the technical legal values partly through grandfather-rights exceptions and defects in dispute settlement procedures." Same is true with option (d). Option (b) is a simple reiteration of the paragraph's claims. It does not apply specifically to the question in hand.
96. (d) Option (d) is a smart answer choice and the correct one too because it speaks of the ECJ's (European Court of Justice) role in the official formation of the European Union was that of evaluating the member states' actions. Also, Option (a) is incorrect, because the 'teleological' method is the major point being referred to here, instead of the European Court of Justice. Option (b) is wrong as it is talking about the GATT. Option (c) can be ruled out, because it does not form a part of the given passage.
97. (c) Option (c) is correct because it represents the correct antecedent of it. We can see that second paragraph mentions: the rule-based system plus the World Trade Organization were associated by middle and small trading partners with export gains. Option b) is not our answer because it does not refer to the WTO's defense by ambassador Kantor. Options (d) is not representing the it correctly either.
98. (d) While mentioning the various prominent decisions which the ECJ made, the fourth paragraph specifically points out the impact of Cassis de Dijon. It played a pivotal role in the formation of a doctrine which led to the EU's integration. This is what option (d) refers to,

and hence is our answer. Option (c) can be deemed as a possible answer, but it is not to the point as option (d) is. Since we have to choose the best possible answer, we can choose option (d) over (c). Option (a) can be ruled out because it does not have any relation to the question asked, as the Cassis de Dijon's case has no mention in it.

99. (b) The passage discusses the new ideas that have come up and TED is an example of such an idea.

100. (a) The phrase harks back to an era where everything was sepia toned, implying an era long ago.

101. (d)Even though the passage is extremely gung ho about TED, nowhere is the fact of its being irreplaceable mentioned.

102. (d) 103. (d) 104. (b)

105. (a) Xenophobia is fear for foreigners, anglophobia is fear of Englishmen, bibliophobia is fear of book and hemophobia is fear of blood but claustrophobia is fear of closed spaces and thus this does not have the same relation as in given pair.

106. (a) Sail helps a ship move. Same is the relation between all the pair except propeller and dog.

107. (b) Dog belongs to category of Canine mammals. Parrot does not belong to the acquatic category (water inhabiting animals).

108. (a) Sentence A is incorrect as 'immigrant' has been wrongly spelt 'imigrant'. Sentence C is incorrect as there should be commas before and after David Stern, as brother-in-law refers to him and he is the owner of the dry goods business. Sentence D is incorrect because the indefinite article 'a' should precede 'dry goods business'. 'Business' is a countable noun and needs a determiner. Sentence E is incorrect as 'would later became' shall be replaced by 'would later become'. Thus only sentence B is correct.

109. (d) Sentence B is incorrect as the adjective referring to the Noun, 'Nike' should be singular, 'its' and not 'their'.

Sentence C is incorrect as there is no need of a comma after concerns. Also we need to add a relative pronoun 'that' after sensing.

Sentence E is incorrect as the definite article 'the' must be used in place of the indefinite article 'a'. Sentences A and D are correct.

110. (d) Statement B is incorrect as the noun 'home' should be in the plural form as we are referring to the homes of the few million (people).

Statement E is incorrect as there is a problem of subject-verb agreement here. The subject 'the death count' is singular, and hence requires a singular verb 'has', and not, 'have'.

The correct statements are A, C and D.

111. (d) First Appeal: First appeal to the officer senior in rank to the PIO in the concerned Public Authority within 30 days from the expiry of the prescribed time limit or from the receipt of the decision (delay may be condoned by the Appellate Authority if sufficient cause is shown).

112. (a) Dadabhai Naoroji had estimated national income in India first. National income estimate before independence was prepared by Dada Bhai Naoroji in 1876. He estimated national income by estimating the value of agricultural production and then adding some percentage of non–agricultural production. This method was non–scientific.

113. (b)

114. (a) The dwarf wheat variety was introduced in India by Dr. Norman Borlaugh in 1970s as a major revolution in the food security called Green Revolution.

115. (b) 'Chris Cassidy' of the US and Russians 'Pavel Vinogradov' and 'Alexander Misurkin' travelled six hours in 'Soyuz capsule' before linking up with space stations Russian Rassvet research module. It was the first time a space crew has taken such a direct route to the orbiting lab.

116. (b) EB Havell and Bengal School of Art Ernest Binfield Havell or E.B. Havell, was principal of the Government School of Art, Calcutta from 1896 to 1905, where, along with Abanindranath Tagore, he developed a style of art and art education based on Indian rather than Western models, which led to the foundation of the Bengal school of art. eventually it led to the development of the modern Indian painting.

117. (a) The prestigious Dhanwantari award, which recognizes contribution in medical science is awarded annually since 1972. The recipients include M.K. Mani, pioneer in nephrology in the country and Chief Nephrologist at Apollo Hospital, Chennai who has been honoured with the 40th Dhanvantari Award.

118. (d) *The Audacity of Hope*: Thoughts on Reclaiming the American Dream is the second book written by Barack Obama. In the fall of 2006 it became number one on both the New York Times and Amazon.com.

119. (a) Hockey (as field hockey) was introduced in Olympics for the first time in Summer Olympics London in 1908.

120. (b) Larry Page and Sergey Brin are the two co-founders of Google which was found in 1989.

121. (d) 122. (b) 123. (c)

124. (c) The slogan of 'poverty abolition' was given by Indira Gandhi in 1971 and it was implemented during the Fifth Five Year Plan 1974–79. Gandhi promised to reduce poverty by targeting the consumption levels of the poor and enact wide ranging social and economic reforms.

125. (b)	126. (a)	127. (a)	128. (b)
129. (b)	130. (d)	131. (d)	132. (b)
133. (a)	134. (d)	135. (c)	136. (c)
137. (c)	138. (a)	139. (a)	140. (b)
141. (a)	142. (d)	143. (c)	144. (b)
145. (c)	146. (b)	147. (d)	148. (d)
149. (a)	150. (c)		