

Quant\_Solutions

Solutions for questions 1 to 12:

1. Total number of arrangements =  $\frac{8!}{4!2!2!} = 420$

Since there are two 1's and two 0's, the number of arrangements in which the first 1 is before the first 2 is same as the number of arrangement in which the first 2 is before the first 1 they are equal to half the total number of arrangements = 210. Choice (4)

Alternatively:

Number of arrangements in which the first position is 1 is  $\frac{7!}{2!4!}$

Number of arrangements in which the first two digits are 01 is  $\frac{6!}{2!3!}$

Number of arrangements in which the first three digits are 001 is  $\frac{5!}{2!2!}$

Number of arrangements in which the first four digits are 0001 is  $\frac{4!}{2!}$

Number of arrangements in which the first five digits are 00001 is  $\frac{3!}{2!}$

$$\text{Total} = \frac{1}{2!} \left[ \frac{7!}{4!} + \frac{6!}{3!} + \frac{5!}{2!} + 4! + 3! \right]$$

$$= \frac{1}{2} [210 + 120 + 60 + 24 + 6] = \frac{1}{2} [420] = 210$$

2. Statement I: The expression  $(a + b) (a \times b)$  normally means  $(ab) a/b$  which is equal to  $a^2$ .

$(a - b) (a \div b)$  is  $a^2 - b^2$ .

As  $b \neq 0$ ,  $a^2$  is always greater than  $a^2 - b^2$ . Hence this statement is true.

Statement II:  $a + (b \div c) = (b \div a) + c$ , in our usual notation, this means  $a(b-c) = (b-a) c$

$$\Leftrightarrow ab - ac = bc - ac$$

$$\Leftrightarrow ab = bc$$

$$\Leftrightarrow a = c.$$

This is what the statement says and hence, statement II is also correct. Choice (3)

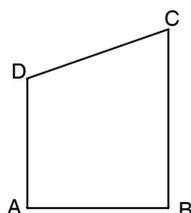
3. We first count the number of committees in which (i) Mr. Y is a member (ii) the ones in which he is not  
case (i) As Mr. Y agrees to be in the committees where Mrs. Z is a member. Now we have left with  $(7 - 1)$  men and  $(5 - 2)$  ladies. Mrs. X is not willing to join. We can choose 2 more in  ${}^{(6+3)}C_2$  ways or 36 ways.

case (ii) If Mr. Y is not a member then we are left with  $(7 + 5 - 1)$  people. We can select 4 from 11 in  ${}^{11}C_4$  ways or 330 ways.

Thus the total number of ways is  $36 + 330 = 366$

Choice (1)

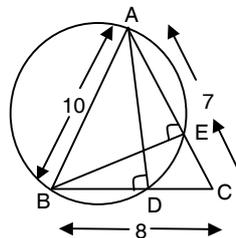
4.



We form the trapezium ABCD with  $AB = 2$ ,  $BC = 9$  and  $AD = 4$ . The area of the trapezium is  $(1/2) (2) (4 + 9) = 13$  sq.units

Trapezium is the area which just over estimates the shaded portion. Hence 13 sq.units is the closest among the choices. Choice (1)

5.



AD and BE are perpendicular to BC and AC respectively. If a circle is drawn with AB as diameter, it passes through D as well as E, as angles at these points are  $90^\circ$ .

$\Rightarrow$  ABDE is a cyclic quadrilateral.

The AEC and BDC are secants to this circle.

Hence,  $(CE) (CA) = (CD) (CB) \Rightarrow CD/CE = CA/CB = 7/8$  Choice (1)

6. Let the number satisfying the required condition be  $(ab)_{11}$   
 $\Rightarrow 11a + b = 3(11b + a)$

$$\Rightarrow \frac{a}{b} = \frac{33-1}{11-3} \Rightarrow \frac{a}{b} = \frac{32}{8} = \frac{4}{1} = \frac{8}{2}$$

Hence  $(41)_{11}$  and  $(82)_{11}$  are the required numbers.

Choice (3)

7. The curve in the figure does not pass through the origin and the line in the figure has negative intercepts. Only choice (3) satisfies both the conditions. Choice (3)

8. The expression

$$= \frac{(x-3)(x+2)}{(x+2)(x-1)} + \frac{(x+4)(x-2)}{(x+4)(x-1)} + \frac{(2x+1)(x-1)}{(x-1)(x-1)}$$

$$= \frac{x-3 + x-2 + 2x+1}{x-1} = \frac{4(x-1)}{x-1} = 4$$
 Choice (2)

9.

1991	92	93	94	95	96
100	110	121	133.1	146.41	161.05
97	98	99			
145	130.5	117.5			

$$\frac{7.5}{110} \approx 7\%$$

Choice (4)

10. Given that  $\frac{x^2+3x-10}{x^2-5x-14}$  is positive  $\Rightarrow \frac{(x+5)(x-2)}{(x-7)(x+2)} > 0$

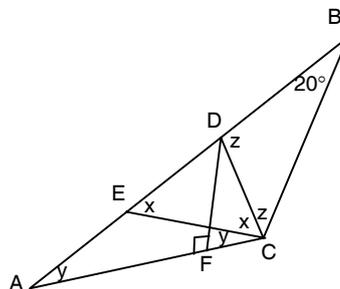
$$\Rightarrow (x-7)(x-2)(x+2)(x+5) > 0$$

All the four factors could be negative i.e.,  $x < -5$  or exactly two could be negative, i.e.,  $x - 2 < 0$  and  $x + 2 > 0$  or  $-2 < x < 2$  or all the four could be positive, i.e.,  $x > 7$ .

Of the given ranges, only  $-2 < x < 2$  is permissible.

Choice (4)

11.



EAC is isosceles triangle, as EA = EC (given)  
 $\angle DEC$  (external angle) =  $2\angle EAC$   
 or  $x = 2y \rightarrow (1)$   
 DEC is also isosceles triangle.  
 $\angle BDC = 2\angle DEC$  or  $z = 2x \rightarrow (2)$   
 From (1) and (2),  $z = 2x = 4y \rightarrow (3)$   
 In triangle BDC, sum of angles is  $180^\circ \Rightarrow z = 80^\circ$   
 $\Rightarrow y = 20^\circ, x = 2y = 40^\circ$   
 In  $\triangle DFC$ ,  $\angle FCD = y + x = 20^\circ + 40^\circ = 60^\circ$   
 and  $\angle DFC = 90^\circ$

$\therefore$  Sides are in the ratio  $1 : \sqrt{3} : 2$   
 $\Rightarrow FC : FD : DC = 1 : \sqrt{3} : 2$   
 Given  $FC = 3$  cm,  $DC = 2FC = 6$  cm. Choice (2)

12. The new downstream speed =  $(12 + 8)/2 = 10$  kmph  
 New upstream speed =  $(12 - 8) = 4$  kmph  
 Total time taken =  $20/10 + 20/4$   
 $= 2 + 5 = 7$  hours Choice (2)

**Solutions for questions 13 and 14:**

We have  $S_n = \frac{n(n+1)}{2}$

13.  $n = 1, 2, 3, 4, 5, 6 \dots$  or 4939  
 then the parity of  $S_n$  follows the pattern  
 o, o, e, e, o, o, e, e, ..... (where o is odd and e is even)  
 Hence for every set of four  $S_n$ 's we have two even  $S_n$ 's.  
 Hence till  $S_{4936}$  we have exactly 2468 even  $S_n$ 's and for the remaining  $S_n$ 's the parity will be o, o, e.  
 $\therefore E(S_{4939}) = 2468 + 1 = 2469$ . Choice (2)

14. We need  $\frac{n(n+1)}{2}$  to end with a zero where  $n \leq 1000$ .  
 $\Rightarrow n(n+1)$  must not only be a multiple of 5 but it should also be a multiple of 4.  
 case (1)  $n$  is a multiple of 5 (4)  $\Rightarrow n = 20k$   
 case (2)  $(n+1)$  is a multiple of 5 (4)  $\Rightarrow n = 20k - 1$   
 case (3)  $n$  is a multiple of 5 and  $n+1$  is a multiple of 4 which is possible only for  $n = 5(4k+1)$   
 $n = 20k - 15$   
 case (4)  $n+1$  is a multiple of 5 and  $n$  is a multiple of 4 which is possible when  $n = 4(5k-4) = 20k - 16$ .  
 Cases (1) (2) (3) (4)  
 No. of  $n$ 's satisfy the case 50 50 50 50  
 $\therefore$  Total possibilities are  $50 + 50 + 50 + 50 = 200$ . Choice (4)

**Solutions for questions 15 to 17:**

We can solve this problem by using our understanding of divisibility rules.  
 Since, the first two digits from the left should be divisible by 2, we can have a number of combinations viz, 12, 14, 16, 24, 26, 32, 34, 36, 42, 46, 52, 54, 56, 62, 64. But we see that the first five digits from left should be divisible by 5 and hence 5 cannot be in the first place from the left.  
 Also we have that the first 3 digits are divisible by 3.  
 $\Rightarrow$  the sum of 3 digits should be divisible by 3. The following numbers from the list would be left (for the first 3 digits) 123, 126, 162, 243, 246, 261, 264, 321, 324, 342, 423, 426, 462, 621, 624, 642,

Next condition is that the first four digits are divisible by 4. (i.e.) the last 2 digits of a four-digit number should be divisible by 4.

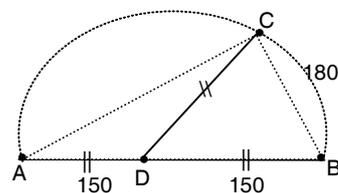
This now prunes our list to  
 1236, 1264, 1624, 2436, 3216, 4236  
 $\therefore$  The six digit numbers are  
 123654, 126453, 162453, 243651, 321654, 423651  
 Now answering the four questions we get

15. Choice (3)  
 16. Of 3 is in units place  $\Rightarrow$  the numbers are 126453 and 162453.  
 $\therefore$  The digit in hundred's place is 4. Choice (3)  
 17. As can be seen we can have 1, 2, 3 or 4 in the first position from the left. Choice (3)

**Solutions for questions 18 to 21:**

18. Since the slips are picked up one after the other without replacement, they have distinct numbers on them 4 distinct numbers can be arranged among themselves in  $4!$  ways. (i.e., 24 ways). Of these 24 ways all of which are equally likely, only one arrangement is in ascending order.  
 $\therefore$  The required probability =  $1/24$ . Choice (3)  
 19. Clearly for  $(x, y) = (5, 1), z = 17$  and by incrementing  $x$  by one we can obtain all the odd values for  $z$  in the given range.  
 Similarly for  $(x, y) = (2, 2), z = 18$  and by incrementing  $x$  by one we can obtain all the even values for  $z$  in the given range.  
 Hence a total of  $337 - 17 + 1 = 321$  possible values are there for  $z$ . Choice (4)

20.

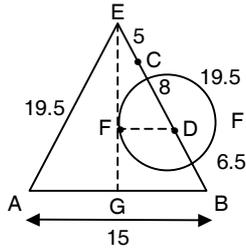


Let A, B and C be the positions of the bees. Now since  $AD = DC = DB$  we can construct an imaginary semicircle through A, C and B.  
 $\therefore \angle ACB = 90^\circ$   
 $\Rightarrow AC^2 + CB^2 = AB^2$   
 $\Rightarrow AC = 240$  m.  
 $\therefore$  Corr reaches Anne faster by  $\frac{300 - 240}{3} = 20$  seconds Choice (1)

21. Two outlets can empty =  $3000/24$  or 125 cu.m/hr  
 Rate of inflow 300 cu.m/hr  
 Rate of outflow 125 cu.m/hr  
 Addition outflow required is 175 cu.m/hr  
 Hence at least 3 more outlets are needed. Choice (3)

**Solutions for questions 22 to 24:**

If points X, Y, Z are collinear and Y lies between X and Z, we denote the fact by X-Y-Z.  
 As  $BD = 6.5, DC = 8$  and  $BC = 14.5$ , A-D-C.  
 As  $BC = 14.5, CE = 5$  and  $BE = 19.5$ , B-C-E  
 $\therefore$  B-D-C-E As  $DF = 5$ , F lies on the circle shown.



22. The number of triangles is maximum, when F is not collinear with E, C, D and B, and it is  ${}^6C_3 - {}^4C_3 = 20 - 4 = 16$  Choice (3)
23. The area of  $\triangle DEF$  will be maximum when DF (which is 5 units) is  $\perp$  to ED (which is 13 units) Then area =  $(\frac{1}{2})(DF)(ED) = (\frac{1}{2})(5)(13) = 32.5$  sq.units Choice (2)
24. If F is equidistant from A and B, then F lies on the median EG. (Note that ABE is isosceles)
- Since  $\frac{ED}{EB} = \frac{5+8}{19.5} = \frac{13}{19.5} = \frac{2}{3}$ ,  
D to EG (i.e. perpendicular distance) will be  $\frac{2}{3} \left( \frac{15}{2} \right) = 5$  units  $\therefore$  The circle touches EG at only one point. And there is only one possibility for F. There is only way in which the six points can be located to each other. Choice (1)

#### Solutions for questions 25 and 26:

Following information is given:

- None had less than Rs.15 ( $\Rightarrow$  each person had  $\geq$  Rs.15).
  - Four odd numbers, one even number.
  - No two persons had the same amount.
  - Maximum amount = odd.
  - Total sum = Rs.150.
25. To obtain the maximum difference between the highest and the lowest possible amounts, we should assume the least amount to be 15, which is the bare minimum. Then, the amounts will be 15, 16, 17, 19, 83. Hence, the desired difference =  $83 - 15 = 68$ . Choice (3)
26. From the given condition, the only possible amounts are 15, 25, 35, 45 and 30. Hence, the even amount is 30. Choice (3)

#### Solutions for questions 27 to 30:

From (a), we know that SD defeated either AG or DS and she contested from either Chhattisgarh or Madhya Pradesh.

From (a), (b) and (f), we know that RS defeated either DS or AG and contested from Rajasthan.

Thus we can surmise that SD and RS are the ones who defected AG and DS, though not necessarily in that order. That leaves us with VRS who defeated MLK and UB who defeated AS.

From (d), we know that UB's party got the lowest number of seats among the four winners (i.e., 50 seats from (b))

UB did not contest from Delhi, Madhya Pradesh or Rajasthan which means that she contested from Chhattisgarh.

Similarly, SD did not contest from Delhi, Rajasthan and Chhattisgarh which means that she contested from Madhya Pradesh. That leaves us with VRS who contested from Delhi.

From (g), we know that VRS's party got 80 seats. From (e), we know that one party got 30 seats more than one of the parties and 30 seats less than another of the parties and it cannot be any other party than VRS's party. VRS's party got 80 seats which is 30 more than UB's party, which got 50. Therefore there is one party that got 110 seats (30 more than VRS's party), and that could either be SD's party or RS's party. From (h) we know that seats are directly proportional to popularity which means that SD gets the maximum seats followed by VRS, RS and VB in that order. Therefore RS's party gets more than 50 seats (UB's tally) and less than 80 seats (VRS's tally) that leaves us with SD's party which gets 110 seats (30 more than VRS's 80 seats).

The final table looks as follows: -

Winning candidate	Loosing candidate	State	No of seats
SD	DS/AG	Madhya Pradesh	110
VRS	MLK	Delhi	80
RS	DS/AG	Rajasthan	Between 50 & 80
UB	AS	Chhattisgarh	50

27. UB defeated AS. Choice (2)
28. Either SD or RS defeated DS. Choice (4)
29. The winning party in Madhya Pradesh was SDs which got 110 seats. Choice (2)
30. Choice (1) is possible and choice (3) is absolutely true whereas choice (2) is definitely false. Choice (2)

#### Solutions for questions 31 and 32:

31. Venkat's brother's father will be the father of Venkat, Venkat's father's brother's father will be the paternal grandfather of Venkat. Venkat's grand father's daughter will be Aunt of Venkat. Venkat's Aunt's sister is also an aunt and her daughter will be the cousin of Venkat. Venkat's cousin's brother is also a cousin of Venkat. Choice (2)
32. Given

- A can be selected only if Q is selected.
  - Exactly one of C and D must be selected.
  - B and S cannot be selected together.
  - Exactly one of E and R must be selected.
- As E is selected, from (4) R cannot be selected. Only one of C and D must be selected (from 2)

The boys selected can be one of A or B one of C or D, E. Let us analyse all possibilities.

Boys selected		Girls selected
E, C/D, A	$\rightarrow$	Q, P/S
E, C/D, B	$\rightarrow$	P, Q

In either case Q is always selected. Choice (3)

#### Solutions for questions 33 to 36:

33.  $1994 \text{ ----} = 162^\circ$   
 $1995 \text{ ----} = 135^\circ \times (1 - 0.2) = 108^\circ$  (Since there was a drop of 20% we scale the total angle of the second diagram for calculation purposes)  
 Drop =  $(162 - 108)/162 = 33\frac{1}{3}\%$  Choice (1)

34. Total does not change  $\therefore$  Angle for cash increases by 20%  
 $= 1.2 \times 36 \cong 43^\circ$  Choice (2)
35. Angle for bonds remain the same  
 $\therefore$  Decline in bonds = overall decline. I.e. 30  $\rightarrow$  24  
 (20% less) Choice (2)
36. Since no price is given, therefore no solution is possible.  
 (for the worth of gold held could vary because of either price or quantity.) Choice (4)

**Solutions for questions 37 to 40:**

37. Any batch can be started only after activities 5, 6, 7 are completed and at least one - third of activity 3 is completed. But for 3 to start, activities 1 and 2 have to be completed.

Total time taken = Activity 1 + Activity 2 +  $\frac{1}{3}$  of Activity 3

Total time =  $12 + 3 + \frac{1}{3} \cdot 3 = 16$  weeks.

Since activities 5, 6 and 7 have no precursors they can be completed within these 16 weeks. Batches can start on week 17. Choice (3)

38. For the first batch to start activities 5, 6, 7 are to be completed and  $\frac{1}{3}$  of activity 3. For 3 to start 1 and 2 must be completed. For 5 to start 4 must be completed.

Activity	Weeks	Cost/Week	Total
1	12	30,000	3,60,000
2	3	2,000	6,000
3	1	25,000	25,000
4	1	10,000	10,000
5	2	12,500	25,000
6	1	5,000	5,000

Total Amount Spent = 4,31,000 excluding activity 7. Choice (1)

39. Activities 1, 2 and 3 are connected i.e. 2 follows 1 and 3 follows 2.

Time taken for activity 1 after compression = 6 weeks.

Time taken for activity 2 after compression = 2 weeks

(compression is done in multiples of 2 weeks)

Time taken for activity 3 = 2 weeks

Total time taken for 1, 2 and 3 = 10 weeks.

All other activities do not have precursors and could be completed within these 10 weeks. Choice (1)

40. To have the least cost and minimum time we need to compress only the preparation, typing and printing as done in Q No. 104. There is no need to compress activities 5, 6 and 7.

Cost for preparation =  $6 \times 90000$  (Three times cost)

Cost for typing =  $1 \times 6000 + 1 \times 2000$  (Two weeks have been compressed into one and the other week remains intact)

Cost for printing =  $1 \times 75000 + 1 \times 25000$

Faculty selection =  $1 \times 10000$

Faculty orientation =  $2 \times 12500$

Counsellors =  $1 \times 5000$

Marketing & promotion =  $4 \times 50000$

$= 5.40 + 0.08 + 1.0 + 0.10 + 0.25 + 0.05 + 2.0$

$= 8.88$  lacs. Choice (4)

**Solutions for questions 41 and 43:**

41. Possible electricity production in 1985 (kwh)  
 $= 5580 \times 24 \times 365$   
 Capacity Utilization

$$= \frac{20123 \times 10^6}{5580 \times 24 \times 365 \times 10^3} \times 100 = 41.7\%$$

$$\text{Efficiency} = 0.85 \times 41.7\% \cong 35.5\% \quad \text{Choice (1)}$$

42. Let T, U, R represent Total population, Urban population and Rural population respectively.

$$\text{Then } T = U + R$$

$$0.12T = 0.32U + 0.08R$$

$$12T = 0.32(T - R) + 0.08R$$

$$0.12T = 0.32T - 0.32R + 0.08R$$

$$\Rightarrow \frac{R}{T} = \frac{0.2}{0.24} = \frac{5}{6}$$

$$= 83.33\% \quad \text{Choice (4)}$$

43. Difference of Railroad tracks

$$= 61240 - 59997 = 1243 \text{ km}$$

Difference of Paved roads

$$= 623998 - 324758 \cong 300,000 \text{ km}$$

$$\text{Required percentage} \cong \frac{1200}{300,000} \times 100 \cong \frac{1.2}{3}$$

$$= 0.4 \quad \text{Choice (2)}$$

**Solutions for questions 44 to 47:**

44. The percentage difference in median annual salary will be the same for the percentage difference in the median monthly salary.

Median monthly salaries for Oracle Professionals :

Males : 9,054

Females : 7,761

$$\% \text{ difference} = \frac{9054 - 7761}{7761} \times 100$$

$$= 16.67\% \cong 17\% \quad \text{Choice (3)}$$

45. LAN Operates = 9%

IMB Mainframe Specialists = 10%

Difference = 1%

$$\therefore \text{The required number is } \frac{1}{100} \times 88,300 = 883$$

Choice (4)

46. Number of females in Quality Assurance

$$= \frac{14}{100} \times \frac{86}{100} \times 88,300$$

Number of males who are in LAN operations

$$= \frac{9}{100} \times \frac{(100 - 34.2)}{100} \times 88,300$$

$$\text{Difference} = \frac{88,300}{100 \times 100} [14 \times 86 - 9 \times 65.8]$$

$$\cong 5,400 \quad \text{Choice (1)}$$

47. Verifying the given statements one by one, we get:

I. Number of java Professionals = 18% of 88,300

$$\frac{3}{20} \text{ of total employees} = 15\% \text{ of } 88,300$$

$\therefore$  I is true

II. From the bar graph

Females = 20.7%, hence males = 79.3%

Thus II is false.

III. For other programmer's category, the ratio of the median salaries of males and females is

$$= \frac{9547}{7307} \cong 1.3 \text{ (approx).}$$

Hence, both I & III are true. Choice (3)

**Solutions for questions 48 to 50:**

48. Given that, x and y are co-primes using statement I alone, 180 is the L.C.M of x and y. As x and y are co-primes, 180 is the product of x and y. Now,  
 $180 = 2^2 \times 3^2 \times 5$

The possible values of x and y are

$$x = 2^2 \times 3^2 \text{ and } y = 5$$

$$x = 2^2 \times 5 \text{ and } y = 3^2$$

$$x = 3^2 \times 5 \text{ and } y = 2^2$$

∴ Statement I alone is not sufficient to answer the question.

Using statement II alone,

As nothing is mentioned about y, we cannot answer the question.

∴ Statement II alone is not sufficient to answer the question.

Using both the statements together,

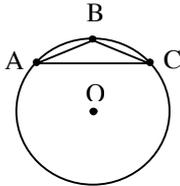
$$X = 2^2 \times 3^2 \text{ and } y = 5$$

Is the only possible case. We can answer the question now.

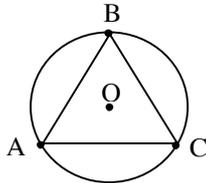
Choice (3)

49. Using statement I alone, consider the following two cases.

Case (i)



In this case, sum of two sides is less than diameter.



In this case, sum of two sides is more than diameter.

∴ statement I alone is not sufficient.

Using statement II alone, Sum of any two sides must be more than third side.

∴ Hence, II alone is sufficient.

Choice (1)

50. Using statement I alone, A is taller than C and D as no information is given about B and E, I alone is not sufficient to answer the question. Using statement II alone, there must be at least one person taller than B and that person cannot be C or E.

∴ the tallest person can be A or D.

∴ Statement II alone is not sufficient. Combining both the statements, A must be the tallest.

Choice (3)

#### Solutions for questions 51 to 55:

51. 'B' cannot be the opening sentence because the words "still a living tradition" implies that some other statement must precede it. D cannot be the concluding sentence so we rule out choices 1 and 4. The choice is between DC or DB. In statement 'D' the term "study of medicinal plants" is introduced and in 'B' it is said that "the use of medicinal plants is still a living tradition". Hence 'B' following 'D' would be a better choice and 'C' can conclude the paragraph. 'D' followed by 'B' is found only in the choice (3).

Choice (3)

52. C is clearly the first sentence as it introduces the subject 'vehicular pollution'. D follows elaborating on the subject. A looks at a possible solution and B gives the reaction of the supreme court to the problem. CDAB is a logical sequence.

Choice (2)

53. B is clearly the opening sentence since it introduces and defines yoga. A follows emphasizing the positive effects. Hence BA can go together. D looks like a statement, which can end the discussion on yoga as it specifies about the 'viable solution'. Hence BACD is the ideal combination.

Choice (4)

54. We have to decide whether D and A opens the paragraph. D precedes A in chronology. Now the choice is between DB or DA. 'B' following 'D' would be a better choice because in 'D' we have the words "traditional way of characterising" and, 'B' continues with "such a characterisation".

Choice (3)

55. B is the first sentence since it introduces the subject of environment. A follows 'pollution' following 'damage' in B, C and D are more specific tracing the occurrence and consequences of pollution. Hence BACD.

Choice (2)

#### Solutions for questions 56 to 60:

56. Since the sentence says that people of all religions and no religion should be made to feel comfortable, the only word that can go into the first blank is 'secular'.

Choice (3)

57. All the four words are possible in the first blank, so let us look at the second blank. The number of women in powerful posts is not enormous (very large), alarming (shocking) or extraordinary (unusual or remarkable), it is a minuscule (very tiny). So, naturally a minuscule will be the fitting word for second blank (the word 'still' also emphasises the choice). Susceptible (likely to be influenced or harmed) is suitable in the first blank.

Choice (2)

58. The magic word that urges us to do better can be motivation or appreciation. It is definitely not criticism nor likely to be imagination. In the second blank strive (make great effort, fight vigorously) is better than slog (work hard).

Choice (1)

59. Suffering can be alleviated (make pain or difficulty less severe) or mitigated (make less severe or painful). But it cannot be dispelled (make a doubt, feeling or belief disappear) or destroyed (put an end to the existence of something). Helpless people will invoke (call on in prayer) God rather than enjoin (urge to do something).

Choice (4)

60. The Delhi-Lahore bus service has symbolically (a thing that represents or stands for something else) not really (in reality or actual fact), literally (in a literal sense) or suddenly (quickly or unexpectedly) reopened interaction between India and Pakistan. Noor has been instrumental in opening the floodgates (the floodgates means the last restraint holding back a powerful outpouring). Since the word preceding the blank is 'has opened' it cannot be deluge or profusion or outpouring. You can only open a gate (the floodgates here).

Choice (3)

#### Solutions for questions 61 to 65:

61. The words 'would rather' cannot be followed by 'prefer' or the 'ing' form. It is followed by the verb itself (I would rather do this than that). Further we go 'on foot' not 'by feet'.

Choice (2)

62. When you use a gerund (i.e. verbal noun), 'to' cannot precede it. Either you have to say - if you intend pursuing; or if you intend to pursue (to infinitive)

Choice (1)

63. "Many" should be used instead of 'much' - 'much' refers to quantify (much water) many refers to number as it is a countable noun - (many parts or large parts).

Choice (3)

64. Since the subject is 'each' and not research scholars, it should be 'his/her dissertation' (singular) not 'their' (plural).

Choice (3)

65. "While" should be used instead of "when".

Choice (3)

#### Solutions for questions 66 to 70:

66. Choice 1 is the correct sentence. In statement 'B' ----- "Sachin has been seeking -----" the present continuous

tense is incorrect because the remaining part of the sentence is in simple present tense. The word "entirely" (adverb) should precede wrong as, it lays emphasis on it. In statements 'C' and 'D' ----- "revulsion in" ----- is the error. Revulsion means (a strong feeling of disgust). It does not take the preposition 'in'. Hence 'C' and 'D' are ruled out.

Choice (1)

67. Statement 'A' is wrong because, developmental means in a state of developing or evolutionary – "developmental successes" is not appropriate. Again the usage of "economical" in D is erroneous because economical means sparing in the use of resources or money which is not appropriate to the context. In statement 'B' the ordering of words, is inappropriate. In the context of the sentence it is the western economic ideas, which were not considered to a great extent i.e., "to the extent that they were considered at all in recent years" should be placed after "western economic ideas", not before it. If the position of the words "to the extent that they were considered at all" is after "----- policy makers", it conveys the meaning that the policy makers are not considered at all, which changes the meaning completely.

Choice (3)

68. Choice 2 is correct. In statement 'A' the usage "have to be necessarily aware of -----" is erroneous. The right structure is "have necessarily to be -----" which is found in B, C and D. In statement 'D' the 'need of' is wrong – it is 'need for'. In statement C the order of the words is wrong.

Choice (2)

69. In the context of the sentence "sputters" means struggles. In statements C and D the word "splits" does not convey the appropriate meaning-an economy does not split, a country may. In statements 'A' and 'D' "for the survival of hardship" may conveys the meaning that the difficulties must survive which is erroneous. Hence A, C and D are ruled out. Further 'foraging' (search for something using hands) is wrong, 'forging' (putting a lot of effort to achieve something) is right.

Choice (2)

70. Choice 3 is correct. Statement 'A' is wrong, it is not ----- "unconsciously few of us are aware of -----". In statement 'B' "a few of" indicates "some of us" and also the usage "unconscious choices" is wrong. In 'D' the ordering of words is wrong.

Choice (3)

#### Solutions for questions 71 to 75:

71. Children cannot be come 'expendable' (something no longer needed). It is the most inappropriate word.

Choice (4)

72. A chasm means a deep crack or opening in the ground. 'Abyss' and 'gulf' refer to the physical meaning while

schism (difference) refers to its metaphorical meaning. 'Isolation' is inappropriate.

Choice (2)

73. 'Livid' conveys a high degree of anger, as also 'irate', 'infuriated' and 'incensed'. 'Upset' is a much milder word and is the most inappropriate one here.

Choice (1)

74. 'Licentious' refers to 'wanton' 'degenerate' or 'indecent' behaviour but not 'biased' which means to prejudiced.

Choice (2)

75. 'Scurrilous' means rude and insulting which is also the meaning of 'vituperative', 'venomous' and 'pejorative' but 'assiduous' means diligent.

Choice (4)

#### Solutions for questions 76 to 85:

76. The passage discusses the role of banks in black money.

Choice (1)

77. 'Critical' and 'cynical' can be ruled out since there is not note of censure. Between 'informative' and 'analytical', the latter is better since analysis implies study and examination in order to understand.

Choice (3)

78. Refer to para 6, lines 2 – 3.

Choice (2)

79. Para 8 supports statement III, para 9 supports statement II.

Choice (4)

80. Para 2 supports statement II, para 3 supports statement I.

Choice (3)

81. Refer to para 3, lines 7 – 9 where a and b are mentioned. While c is also true, it is a gradual process and hence not something that immediately results in a heart attack.

Choice (1)

82. Refer to para 5 the liver both manufactures and removes cholesterol. Hence manages would be appropriate. It doesnot prepare chylo.

Choice (3)

83. Para 1, line 1 supports (a)

Para 2, line 1 supports (d)

Choice (4)

84. Refer to Para 7, line 1 which says 'diets that are hight in saturated fat ----'. Meat and dairy products come under this category as seen from the next couple of lines.

Choice (3)

85. Para 2, lines 1 – 3 support (d). The last line of the passage says hydrogenation can turn vegetable oil into saturated fats and qualifies it with 'unfortunately'. Hence (b) is true. Since cashew nut is not mentioned among things having cholesterol (para 1) we can say it may not have cholesterol.

Choice (2)

## Key for TEP0512

1. 4	14. 4	27. 2	40. 4	53. 4	66. 1	79. 4
2. 3	15. 3	28. 4	41. 1	54. 3	67. 3	80. 3
3. 1	16. 3	29. 2	42. 4	55. 2	68. 2	81. 1
4. 1	17. 3	30. 2	43. 2	56. 3	69. 2	82. 3
5. 1	18. 3	31. 2	44. 3	57. 2	70. 3	83. 4
6. 3	19. 4	32. 3	45. 4	58. 1	71. 4	84. 3
7. 3	20. 1	33. 1	46. 1	59. 4	72. 2	85. 2
8. 2	21. 3	34. 2	47. 3	60. 3	73. 1	
9. 4	22. 3	35. 2	48. 3	61. 2	74. 2	
10. 4	23. 2	36. 4	49. 1	62. 1	75. 4	
11. 2	24. 1	37. 3	50. 3	63. 3	76. 1	
12. 2	25. 3	38. 1	51. 3	64. 3	77. 3	
13. 2	26. 3	39. 1	52. 2	65. 3	78. 2	