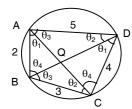
Solutions for questions 1 and 9:

1. Given ABCD is a cyclic quadrilateral with AB = 2, BC = 3, CD = 4 and AD = 5



Draw the diagonals of the cyclic quadrilateral and let Q be its point of intersection.

Let
$$\angle BAC = \theta_1 \Rightarrow \angle BDC = \theta_1$$

: They are the angles in the same segment of the circle. Similarly

Let $\angle ADC = \angle BCA = \theta_2$

Let \angle CBD = \angle DAC = θ_3

Let $\angle ACD = \angle ABD = \theta_4$

We can observe that triangles AQB and DQC are similar. Similarly, triangles AQD and BQC are similar.

Let AQ = a and BQ = b

$$\frac{AQ}{DQ} = \frac{BQ}{CQ} = \frac{AB}{CD} = \frac{2}{4}$$

$$\Rightarrow \frac{a}{DQ} = \frac{b}{CQ} = \frac{1}{2} \Rightarrow DQ = 2a \text{ and } CQ = 2b$$

and since $\triangle BQC$ is similar to $\triangle AQD$,

$$\frac{AQ}{BQ} = \frac{CQ}{DQ} = \frac{BC}{AD} = \frac{3}{5} \Rightarrow \frac{a}{b} = \frac{3}{5}$$

$$\frac{AC}{AC} = \frac{AQ + QC}{AC} = \frac{a + 2b}{AC}$$

$$\frac{AC}{BD} = \frac{AQ + QC}{BQ + QD} = \frac{a + 2b}{b + 2a}$$

$$= \frac{\left(\frac{a}{b}\right) + 2}{1 + 2\left(\frac{a}{b}\right)} = \frac{\frac{3}{5} + 2}{1 + 2\left(\frac{3}{5}\right)} = \frac{13}{11}$$

$$\therefore AC : BD = 13 : 11$$

Choice (2)

n = 1247, f(n) = (1246) (1247) (1248).

Remainder of $\frac{f(x)}{11}$ = Remainder of $\frac{(1246)(1247)(1248)}{11}$

$$= \left[\frac{\text{Remainder of 1246}}{11}\right] \left[\frac{\text{Remainder of 1247}}{11}\right]$$

$$\begin{bmatrix}
 \text{Re mainder of 1248} \\
 \hline
 11$$

= Remainder of
$$\left[\frac{(3)(4)(5)}{11}\right] = 5$$
.

Choice (1)

Given a, b are positive integers such that 4a + 5b = 100. As the co-efficient of b is 5, 4a should end with multiple of to have integer solution.

 \therefore a can take values 5, 10, 15 and 20.

∴they will be total four solutions.

Choice (2)

 $X = (AB)_n = (An + B)$

and
$$(BA)_n = (Bn + A)$$

given

$$(An + B) = 4(Bn + A)$$

$$\Rightarrow$$
 A(n-4) = B(4n-1)

$$\Rightarrow \frac{A}{B} = \left(\frac{4n-1}{n-4}\right)$$

 \therefore minimum value of n = 5 and also from 5 onwards we see that 5, 6, 7 and 8 do not give a permissible ratio of A/B. We

$$get \quad \frac{A}{B} = \frac{35}{5} = 7$$

only for n = 9,

$$A = 7, B = 1$$

and
$$(AB)_9 = (9 \times 7 + 1) = 64$$

Choice (4)

5. In a square, the diagonals perpendicularly bisect each other. As the diagonals coincide with the two axes of x and y, all the four vertices lie on the four segments of the axes.

Side PQ is represented by the equation x + y + 3 = 0. RS is the side opposite to PQ and so PQ parallel to RS.

The equations of the two lines parallel to each other vary only in the independent term.

The equation x + y + 3 = 0 can be written as x/-3 + y/-3 = 1; i.e. the line makes intercepts of -3 and -3 on the x and yaxes respectively.

As all the four vertices are equidistant from the point of intersection of the diagonals, the other two vertices must be at distances of 3 and 3 form the point of intersection of the diagonals (i.e., the origin) hence the equation of the side parallel to PQ (i.e. RS) is x/3 + y/3 = 1; or x + y - 3 = 0. Choice (4)

There are a total of 4 + 3 + 2 = 9 points on the 3 sides of

i.e., a total of
$${}^{9}C_{3}$$
 triangles = $\frac{9 \times 8 \times 7}{1 \times 2 \times 3}$

= 84 triangles are possible, out of which we should subtract $({}^4C_3 + {}^3C_3)$ triangles (since posts on a straight line cannot form a triangle) 4 + 1 = 5 triangles.

∴ 79 triangles are possible.

Choice (2)

The curves in the figure are disjoint and they do not pass through the origin.

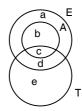
The curves in the choices (1) and (3) pass through the origin. The curves in the choice (4) are producing (0, q) as a common point.

The curves in the choice (2) cut the y-axis at the points (r, 0) and (-r, 0) respectively.

These are also the minimum and maximum points on those curves respectively with equal magnitude (but opposite in sign). So choice (2) best describes the curve.

Choice (2)

8.



$$b + c = \frac{1}{3}[a + b + c + d]$$

 $c = d + c$

$$e = d + c$$

$$c = 1, d + c = 8 \implies d = 7, e = 8$$

 $a + b + c + d = 90$

$$a + b + c + d = 90$$

$$a + b = 82$$

Also
$$3(b + c) = a + b + c + d$$

$$2(b + c) = a + d$$

$$2(b + c) = a + d$$

2 x 30 = a + 7 \Rightarrow a = 53

Choice (4)

9. $\angle BAC = 90^{\circ}$ (angle in a semi circle)

 \angle OAB = 45° (OA is the angular bisector)

$$\angle$$
OBA = \angle OA B = 45°

(OB and OA are the radii of the same circle)

If OX (radius) is drawn to the tangent AB at the point of tangency. $\angle OXB = 90^{\circ}$. OX = 8 cm (radius)

Triangle OBX is an isosceles triangle.

$$OX = BX = AX = 8 \text{ cm}$$
 $BX = AX = 8 \text{ cm}$

Area of triangle OAB =
$$\frac{1}{2} \times AB \times OY$$

$$= \frac{1}{2} \times 16 \times 8 = 64 \text{ sq.cm.}$$
 Choice (2)

Solutions for questions 10 and 11:

10. I.
$$(a \$ b) (a x b) = (a^2 - b^2) (a^2 + b^2 - ab)$$

= $(a - b) (a + b) (a^2 + b^2 - ab)$
= $(a - b) (a^3 + b^3) = R.H.S$

.. I is true
II.
$$a^2 (a - b) + b^2 (b - 1) = a^3 - a^2b + b^3 - b^2$$

 $= (a + b) (a^2 + b^2 - ab) - b(a^2 - b)$
 $= (a + b) (a \times b) - b(a^2 - b) \neq R.H.S$
.. II is not true

III.
$$(a \$ b) (a \# b) = (a^2 - b^2) (a^2 + ab + b^2)$$

= $(a+b) (a^3 - b^3) = R.H.S$
 \therefore III is true.

11.
$$(a \# b) + (a \times b) + (a \times b) = 3a^2 + b^2$$

= 12 + 1 = 13 (since a = 2. b = 1) Choice (4)

Solutions for questions 12:

12. Pods weight =
$$1500 \times \frac{27}{100} = 900 \text{ kg}$$

oil yielded = 900 x
$$\frac{27}{100}$$
 = 243 kg in first extraction

Choice (4)

Solutions for questions 13 to 15:

13.

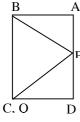
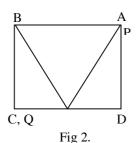


Fig 1.



Consider a rectangle ABCD with BC = AD = 2

One extreme position of an equilateral triangle BPQ is shown in Fig1. We may imagine \triangle BPQ to be rotated about B (keeping the vertex Q on CD and vertex P on DA) consequently ach side of the triangle increases and BA also increases. The other extreme position is shown in Fig2. In Fig1, AB = $\sqrt{3}$ and in Fig2, it is $4/\sqrt{3}$.

$$\therefore \sqrt{3}/2 < AB/BC < 2/\sqrt{3}$$
. Choice (1)

14. Number of arrangements of words starting with A,B,E or L

Number of arrangements of words starting with SA, SB, SE, SL is $4\times4!$

The next word after that is STABEL and then STABLE. So the rank is 480 + 96 + 2 - 578

Choice (3)

15. As we go along the 'perimeter' of the star, starting at A and going towards E, we note that we make 4 complete rotations about the vertical axis (about ourselves.) ie the sum of the external angels at E, I, B, A is 4 (360°). 'At each vertex A, B, K the sum of the internal and external angels is 180°. Thus the sum of all the internal angels (I) + the sum of all the external angels (E) is $11 (180^{\circ})$

$$\therefore$$
 I = 11.180 – 8.180 = 3 (180°) = 540° Choice (4)

Solutions for questions 16 and 17:

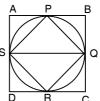
16. If the fourth tap takes 40 minutes working alone then the first three taps together would take 40 minutes. Therefore the fifth tap would take 20 minutes, the sixth 10 minutes, the seventh 5 minutes and the eighth 5/2 minutes.

$$8^{th}$$
 and 7^{th} together take $\frac{1}{1/5 + 2/5} = \frac{5}{3} = 1.66$ minutes

17. The 15^{th} tap can fill at a rate equal to the rate of 14^{th} tap + (rate of all taps from 1 to 14) = exactly twice the rate of the 14^{th} tap. $\therefore 100\%$ more than 1427. Choice (2)

Solutions for questions 18 to 20:

Maximum possible circle is to be cut from a space. The figure is:



When the circle is of maximum possible size, diameter of circle = side of square.

$$\Rightarrow$$
 d = a(1)

PQRS is the maximum possible square, in the circle.

In this case, diagonal of square = diameter of circle.

i.e., $\sqrt{2}a_1 = d$, when a_1 is the side of square at the end of the operation. (2)

$$a = d = \sqrt{2}a_1 \dots (3)$$

If 2 operations are completed, the relation for the 2nd operation is:

$$a_1 = d_1 = \sqrt{2} .a_2.(4)$$

For the half operation, after the 2nd operation,

$$a_2 = d_2 \dots (5)$$

The figure formed after 2.5 operations is a circle, with

diameter
$$d_2$$
. Its area = $\frac{\pi d_2^2}{4}$(6)

It is given that the area of square at the initial stage is 64 units; \Rightarrow side = 8 units, i.e., d = a = 8.

From (3),
$$\sqrt{2}a_1 = 8$$
 and from (4),

$$8=\sqrt{2}\mathtt{a_1}=\sqrt{2}\cdot\sqrt{2}\cdot\mathtt{a_2}=2\cdot\mathtt{a_2}; \Longrightarrow a_2=4.$$

From (5) and (6),

Area of circle after 2.5 operations

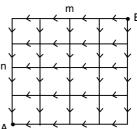
$$= \pi \cdot \frac{d_2^2}{4} = \frac{\pi(4)^2}{4} = 4\pi.$$

Choice (4)

19. The easiest way of doing this problem is by taking the value of m and n as 3 and 3 and checking.

Alternately:

The path will be composed of (m + n - 2) moves out of which (m-1) moves m will be horizontal and (n-1) will be vertical.



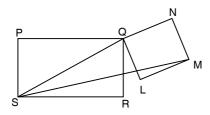
Number of paths = number of way of choosing the horizontal (m - 1) moves out of (m + n - 2) moves.

$$= \frac{(m+n-2)}{(m-1)!(n-1)!}$$

$$= \frac{(m+n-2)!}{(m-1)!(n-1)!}$$

Choice (1)

20.



If length and breadth of the rectangle are 1 and b, then area = 1b = area of square QLMN

Hence $QL^2 = 1b$

Triangle SQL is right angled at Q

Hence, $SL^2 = SQ^2 + QL^2$

$$\Rightarrow 84 = (1^2 + b^2) + 1b \Rightarrow 1^2 + b^2 + 1b = 84 \rightarrow (2)$$

By trial and error, it can be seen that 1 = 8 and b = 2 and NM = 4 satisfying the equation. Hence, SM

$$= \sqrt{\text{SN}^2 + \text{NM}^2} = \sqrt{(\text{SQ} + \text{QN})^2 + \text{NM}^2}$$
$$= \sqrt{(2\sqrt{17} + 4)^2 + 4^2} = \sqrt{100 + 16\sqrt{17}} = 2\sqrt{25 + 4\sqrt{17}}$$

Choice (1)

Solutions for questions 21 and 22:

21. We need the last four digits of n to check for divisibility by

The first 99 natural number consists of

 $1 \times 9 + 90 \times 2 = 189$ digits

we need another 1000 - 189 = 811 digits

 \Rightarrow another $811/3 \cong 270$ digits

i.e., 99 + 270 = 369 number + one digit

i.e., the end of the number n will look like

.....<u>3683693</u>

: remainder will be 13

Choice (3)

22. We need to find the sum of digits.

Each of digits 1 to 9 occurs an equal number of times, If we do not consider the last "1000" then total of the remaining digits will be a multiple of $\Sigma 9 = 45$,

Hence a multiple of 9.

... The last "1000" when divided by a gives a remainder of 1.

Choice (3)

Solutions for questions 23 to 26:

23. Cost of the car =
$$\frac{EMI \times 12}{0.3 \times 1.r} = \frac{EMI \times 40}{1.r}$$

Using this formula,

Cost of Maruti =
$$\frac{9560 \times 40}{1.1}$$

$$Hyundai = \frac{9600 \times 40}{1.09}$$

Telco =
$$\frac{9500 \times 40}{111}$$

$$Fiat = \frac{9200 \times 40}{1.08}$$

By observation we can say cost of Hyundai is highest as numerator is highest and denominator is smallest.

Choice (2)

24. Number of Maruti cars sold in 2002, under C segment cannot be found as the percentage for this particular type is not known. Choice (4)

25. If, for each segment sales volume is one unit in 1999, then the sales volume in 2001 for segement

$$D = 1 \times 1.1 \times 1.2 = 1.32$$

$$B = 1 \times 1 \times 1.1 = 1.1$$

$$A = 1 \times 0.9 = 0.9$$

$$C = 1 \times 0.8 \times 0.9 = 0.72$$

26. In 2001 the number of cars sold under segment D

$$=3000 + 2500 + 2000 + 3300$$

$$= 10800$$

Choice (2)

Solutions for questions 27 to 30:

In a round robin league each team plays every other team 11 times : Total matches played = 11.12/2 = 66 matches

 \therefore In a double round robin league = 66 x 2 = 132 matches will be played. After filling up the blanks we get the following table.

Team	Dlavad	Won	Dearrin	Lost	Doints
1 eani	Piayeu	W OII	Drawn	Lost	Pomts
Mohan Bagan	22	13	X		
Churchill	22	12	6	4	42
Vasco	22	12	4	6	40
Salgaocar	22	10	9	3	39
East Bengal	22	11	3	8	36
Mahindra	22	9	6	7	33
ITI	22	8		Y	
HAL	22	8	4	10	28
Tolly gunge	22	6	5	11	23
JCT	22	5	6	11	21
FC Kochin	22	4	6	12	18
Punjab Police	22	3	3	16	12

27. Number of games won by the top five teams $= 13 + 12 + 12 + 10 + 11 = 58 \rightarrow (1)$

Number of games lost by the five lowest ranked teams = $10 + 11 + 11 + 12 + 16 = 60 \rightarrow (2)$

(1) as a % of (2) is
$$\frac{58}{60}$$
 x $100 \cong 96\%$ Choice(3)

28. Total games won should be equal to the total games lost.

:. Lost games as a percentage of the total games

$$= \frac{101}{132} \times 100 = 76\%$$
 Choice (4)

For questions 29 and 30:

Total games won = Total games lost = 101 This means that 31 games were drawn. Since drawing games are accounted for by both teams involved, the drawn column should total 62.

 \therefore Number of games drawn by Mohan Bagan and ITI = 62 - 52 = 10

Number of points earned by ITI is $8 \times 3 + k.1 > 28$ as all teams get a distinct number of points (where k are the number of games drawn by ITI) \Rightarrow k \geq 5 Number of points earned by Mohan Bagan in 13 x 3 + X 1 > 42 (X is the number of games drawn by Mohan Bagan) \Rightarrow X \geq 4

Values that k and X can take are 5,5 or 6,4 respectively. Hence values of X and Y cannot be found.

Total number of games lost by ITI and Mohan Bagan = 101 - 88 = 13

30. The values of X and Y cannot be determined.

Choice (4)

Solutions for questions 31 to 35:

31. Total overhead cost allocoated to butter = $(62 + 992 + 606 + 696 + 560 + 681) \times 0.5 = Rs.1798.5$ Choice (1)

32. Total overhead cost of SMP and its by products = $813 \times 0.25 + 992 \times 0.5 + 756 \times 0.66 = 1198.21$

Total overhead cost allocoated to WMP and its by

33. Total overhead cost = $9874 \times 0.01 + 813 \times 0.25$

+ 1179 X 0.25 + 1307 X 0.49

HMP Baby food

+ 1094 x 5.76 + 8675 x 0.01

CHEESE S.MILK

+ 3597 X 0.5 + 2726 X 0.66 = 11223.02

GHEE GHEE

 $\approx 11,200$

34. Increase in overhead cost = 1100

Additional cost is allocated to Baby food and cheese in the ratio $\frac{1307}{1094}$

Additional cost for Baby food =
$$\frac{1307}{2401} \times 1100 = 598.8$$

Orginal overhead cost for baby food

$$= 1307 \times 0.49 = 640.43$$

% increase =
$$\frac{598.8}{640.43}$$
 - = $\approx 93\%$ Choice (4)

35. Increase in allocated overhead cost for chease

$$= 1100 - 598.8 = 501.2$$

Increase over 1094 kgs =
$$\frac{501.2}{1094}$$
 = Rs.0.46

New allocated overhead cost = 5.76 + 0.46 = 6.22

Choice (2)

Solutions for questions 36 to 38:

36.
$$\frac{\text{Population}}{\text{Area}} = \text{density}$$

For continent A = 3200/97 = 32.98

For continent B = 700/35 = 20

For continent D = 400/12 = 33.33

For continent F = 300/4 = 75

Choice (4)

37. Density =
$$\frac{\text{Population}}{\text{Area}}$$

World population is sum of the total populations of the given continents = 5500 millions

In solution for question (1) areas of continents A, B, D and F are found.

Similarly area of continent C = 500/100 = 5

Continent E = 400/20 = 20

Total area of world

$$= (32.9 + 20 + 33.3 + 75 + 5 + 20) \approx 186$$
 million sq.km

$$\frac{5500 \times 1.1}{186}$$
 = 32.5 (approximately)

Density = 33 persons per sq.km

Choice (2)

38. In the northern and southern hemispheres, 65% and 35% of the total population is living. : Statement (1) is true. Average number of people per continent

(3) For
$$A = 3200/80 = 40$$

$$B = 700 / 48 = 14.6$$

$$C = 500/51 = 9.8$$

$$D = 400/13 = 30$$

$$E = 400/17 = 23$$

 $F = 300/23 = 13$

By observation statement (3) also is true.

Statement (4) is false,

since there is no decrease in the population of E when compared to D.

Choice (4)

Solutions for questions 39 and 40:

39. The given question is of the form of :

Unless p then q.

The implications are : 1) $\sim p \Rightarrow q$

2) $\sim q \Rightarrow p$ Statement I is of the form of $\sim q$ which means that p is true i.e., A defeats B by 60 points. Hence the given question can be answered.

Statement II clearly states B defeats A.

 \Rightarrow A did not defeat B. Hence can be answered.

Choice (2)

40. Using statement I,

$$C = 70\%$$
 of B

$$\Rightarrow$$
 B = $\frac{100}{70}$ C

∴
$$B + C = 500$$

$$\Rightarrow \frac{100}{70} C + C = 500$$

$$\Rightarrow C = \frac{500}{\left(1 + \frac{70}{100}\right)}$$

$$=\frac{100 \times 500}{170}$$

$$=\frac{5000}{17}$$

∴ Statement I alone is sufficient.

From statement II we cannot find the answer.

Choice (1)

Solutions for question 41:

41. From statement I, no information is given about the other two sides.

From statement II, as the diagonals measure the same and the two adjacent sides are equal (from statement A) the figure is a square of side 10 cm. So the area of the figure can be determined.

Choice (3)

Solutions for questions 42 to 44:

- The following information is given:

 (a) Only R can be repeated
 (b) If Q, then T.
 (c) If R, then R appears at least twice

 - (d) P≠ first or last(e) If T, then Q.
- **42.** R can be used as RR.

T can be used with Q and vice-versa. It is only S which cannot be used on a 2 – letter password. Since the only possible letter to go with S is P, but then P will have to be either the first or the last letter, which is not allowed.

Choice (4)

43. P cannot be first or last hence cannot be used as a single – letter password. Q and T must be together, hence cannot be used as a single letter password. Hence, S alone can be used as a single letter password.

Choice (3)

 $R _{\text{must}} = S$ R must be repeated, then at most only two places are vacant. These two places must be filled in by T and Q. P cannot be included as the other letter will be either T or Q. none of which can be included alone.

Choice (1)

Solutions for questions 45 and 46:

From 1 we know that Chocx weighs 50.6 Chekix and Micklix weighs 63.8 Chekix,

From 2 we know that Sempox weighs 45.1 Chekix and Basalix weighs 42.9 Chekix (2.2 Chekix less than Sempox)

From 3 we know that Prepix weighs $1.4 \times 11 = 15.4$ Chekix.

Let us represent this information on a table.

Name	Weight in Chekix	Weight in Kilograms
Sempox	45.1	4.1
Basalix	42.9	3.9
Micklix	63.8	5.8
Chocx	50.6	4.6
Prepix	15.4	1.4

45. Basalix weighs 42.9 Chekix which is equivalent to 3.9 kg.

Choice (4)

46. The total weight of all five is

45.1 + 42.9 + 50.6 + 63.8 + 15.4 = 217.8 Chekix, which is equivalent to 19.8 kg.

Choice (3)

Solutions for questions 47 and 48:

47. It is given that three players A, B and C are selected to play for their college in exactly one game among Badminton or Chess. At least one person is selected for each game.

If A is selected for Badminton then B and C are not selected for the same game means B and C cannot be selected together for chess.

If B is selected for Badminton then A and C are not selected for the same game means A and C cannot be selected together for chess.

If C is selected for chess, then A and B are selected for the same game means A and B are selected together for Badminton.

The final selections could be

No. of ways	Badminton	Chess
1.	A, B	С
2.	A, C	В
3.	В. С	A
4.	C	A, B

Hence, only one player is selected for Chess is definitely false because A and B both can be selected for chess and C is selected for Badminton.

Choice (3)

48. (i) Assume Woof let the dogs out:

	I	II
Woof	F	T
Arf	T	T
Grrr	F	T

In this case, Woof could be the person who did, hence be our answer.

(ii) Assume Grrr let the dogs out:

	I	П
Woof	F	F
Arf	Т	F
Grrr	Т	Т

This violates the basic condition that each person spoke atleast truth, whereas Woof's both replies are lies. Hence, Grrr couldn't have let the dogs out.

(iii) Assume Arf let the dogs out:

	I	II
Woof	T	T
Arf	F	F
Grrr	Т	F

Again, here also Arf's both statements are false.

Hence, neither Arf nor Grrr let the dogs out, only Woof could have let the dogs out.

Choice (1)

Solutions for questions 49 to 58:

49. Choice 1 is true – refer to para1, lines 4 – 5. Choice 2 is true – refer to par 2, line 7 choice 3 is true – refer to para 2, line 3. Hence none of then can be called not a characteristic of controlled economy!

Choice (4)

50. Refer to para 1, line2.

Choice (2)

51. That the author is not fully in favour of financial liberalization can be inferred from para 4, line 1 – where he dissociates himself from the opinion in favour of liberalization and goes on to contradict it.

Choice (2)

52. Refer to para 4, line2.

Choice (3)

53. Euphemism means pleasant sanding. Hence it is a moulder substitutes for a stranger word. In the passage 'financial reform' has been called a euphemism for 'financial liberalization'.

Choice (4)

54. Para 6 says that states with high sex ratio are those in the north east and Kerala. It goes on to add that in these states women have 'greater access to productive resources, land rights and control over property' – in other words they are economically independent.

Choice (4)

55. The demand side refers to the people who resort to sex selective abortions. These people have to be persuaded to change their attitude. Hence choice (1) is the right answer. Choice (4) looks deceptively right. Though women's group and health activists must be involved in spreading awareness, it is not regarding 'the stigma attached to the prenatal diagnostic tests' - the second half of the choice makes it a wrong answer.

Choice (1)

56. Choice B is stated in para 2, lines 6 –7. Choice D is stated in para 2, line 4.

Choice (4)

57. Dr. Puneet Bedi's statement – end of para 8 –negates choice (2). Choice (1) and (4) are possible inferences from para 9, line 1 but they are not attributed to Dr. Bedi. Choice (3) can be inferred from para 9, lines 2-5.

Choice (3)

58. The decline in the number of girls is due to misuse of techonology to identify and get rid of female foetuses. This can be inferred from the passage and as such 3 is the right choice. Choice (3)

Solutions for questions 59 to 63:

59. Since the cure in the beginning of the sentence is contrasted with (but) 'a genuine cure', 'alleged cure' rather than only cure is more appropriate. Nature seems determined to make the drinker pay for his excesses (outrageous or immoderate behavior) not excess. (Rules out choice 3 and 4). Similarly 'even if means 'despite the fact' hence 'if even' is wrong usage. (Rules out Choice 1).

Choice (2)

60. The correlative conjunctions 'not only but also' are placed before the things linked. In this sentence the cloud seeding operations are crucial for

(1) ensuring adequate irrigation for crops

(2) pre-empting power cuts.
Since these are the two things linked, they must be preceded by the conjunctions. In choice 1 and 4 not only precedes 'crucial' which is wrong. It implies we are comparing crucial with something else that is not crucial (say not only crucial but essential). The cloud seeding operation is over the catchments areas of its reservoirs (plural not just one). Hence choice 2 and 4 are wrong.

61. who <u>are</u> the victims not 'is'. Here who qualifies 'the 13 million people' and not 'Mudaala'. All the thirteen million people are victims, hence plural are. The relative pronoun is placed close to the noun it qualifies.. (Rules out choice 2 and 4). They are the victims not just of bad weather but of (of not just in choice 2 an 3 is wrong). They are the victims of a confluence (merging) of a number of things not just an association (a connection or link between things). Rules out choice 3 and 4.

Choice (1)

62. Most of the schemes are linked, either officially or unofficially. The comparison here is between official and unofficial, hence either or must be placed before them. If we place either before linked, it implies 'or not'. Rules out choice 1 and 3.... large families which are ... we use which to qualify families and who to qualify members of a family Pulse set tables 1 and 2. First by family. Rules out choice 1 and 2. Further large families' in need of help not 'needing help' – the gerund form (needing) is wrong here. Rules out choice 2.

Choice (4)

63. Choice 1, 2 and 4 are not correct because choice (1) says "homeopathy is a <u>special</u> method of drug therapy" – it is <u>a specialised</u> method of drug therapy.

Again "....by administering drugs which are experimentally proved" is wrong; it must be in present <u>perfect continuous tense</u> because it has been a specialised drug therapy for sometime in the past and even now it continues to be.

Hence is should "...by administering drugs which have been experimentally proved...". Again in 'A' it is said "...proved to possess similar artifical symptoms on healthy human beings". The correct way is "...proved to possess the power of producing ...". The preposition 'over' and 'upon' makes choices 2 and 4 wrong.

Choice (3)

Solution for question 64 to 69:

The passage is about human development in the social and economic sectors. Some times it is argued that social sector is the antithesis (direct opposite) of economic growth; antipathy (dislike) does not fit into the blank, nor antidote (substance that contorts the effect of poison). The social sector is not necessarily an antecedent (preceding circumstance) to economic growth.

Choice (1)

The social sector and economic growth are interlinked because one leads to the other. In India the vicious circle of poverty and illiteracy is commonly known, but the social and economic reforms form a virtuous circle (recurring cycle of cause and effect), it is not a virtual (imaginary, non existent) circle. Vindictive (spiteful) and visible (that which can be seen by the eye) are not contextually suitable.

66. Neglecting the social sector or economic growth takes the country to a vicious (faulty, unsound) circle, it is not a real circle (genuine). Venomous circle (poisonous) is not an appropriate usage, like wise violent is also not contextually suitable, because the focus is upon one aspect leading to the other.

Choice (2)

The passage talks of eliminating child labour. The right word is abolition. While eradication (not out, destroy) is used for diseases or poverty in it is not used in the context of child labour.

Choice (3)

- Child labour will exist as long as it is not inimical (harmful) to the existing situation; iniquitous (wickedness) cannot go into the blank because it does not suit the context equitable (fair, just), and innate (inherent) cannot go into the blank. Choice (3)
- **69.** Bonded labour is the remnant (surviving trace) of the feudal form of exploitation. Reminiscence (the recollection of the past) does not suit the context, repercussions (consequence of an act), does not fit because bonded labour is not a consequence of feudalism, but was a part of it. Remittance (a sum of money sent) does not suit the context.

Choice (2)

Solutions for questions 70 to 73:

70. From the given paragraph we understand there is a lot of variation in the number of child labourers. The most appropriate reason for this could be lack of clarity on the question of who can be called a child labour. This idea is expressed in choice (4).

Choice (4)

71. The given para says that shaping economic policy is more about conflict management i.e. a policy which reflects the continuing compromises in economic decision made with the demands of ordinary people and the demands of a particular section of the society.

72. The given paragraph says that institutions are a creative act and the institutions created by many great people in the past reflect their creative endeavour. But they did not think of the ways of making them lasting. Hence the appropriate answer is (3). Choice (1) is not the appropriate answer

because 'vision' is not the same as the practical aspect of continuation.

Choice (3)

73. From the given para we can infer that the new image managers are focussed on improving images. Choice (3) expresses the above idea.

Choice (3)

Solutions for questions 74 to 78:

74. 'Badges' means a sign or feature revealing a quality or condition. Here Paul Zacharia is in Malayalam literature what some body else is in some other language. Hence he is referred to as the

Choice (4)

75. Choice 1 is not possible because the verb 'is' is singular and 'people' is plural. Choice 2 is not right because there is no standard means (a system by which a result is achieved) of written English. Choice 4 is also not possible because English is not spoken as a native language all over the world. Hence only choice 3 makes sense 'there is usually a standard form of written English all over the world'.

Choice (3)

76. The conjunction used is 'but' implying a contrast. Since there is no contrast in the crowd (you expected a crowd and it was there) the contrast is in 'knew' and 'we had not bargained' (rules out 1). Between 2, 3 and 4, only 4 is right the multitude is <u>in</u> the first floor not <u>on</u> or <u>at</u>.

Choice (4)

77. Choice 2 is ruled out because people is plural hence it should be 'their' not his. They should be willing to <u>lend</u> their umbrellas to not <u>for</u> (choice 1 ruled out). Between 3 and 4 it is <u>on</u> a rainy day not <u>in</u> a rainy day.

Choice (3)

78. The sentence implies that apart from earning we should have done some act of kindness, without any expectation of

it being repayed for your day to be perfect. So the answer is choice 2 - unless you have done something for someone. Choice 1 does not convey this meaning - though you have done something for someone. Choice 4 is wrong - unless you have done nothing for someone. Choice 3 whenever and wherever possible implies a lifetime not a day.

Choice (2)

Solutions for questions 79 to 83:

79. B is obviously the opening sentence as it straight away explains us what 'drug addiction' is. No other sentence is independent in its meaning. E cannot be the last sentence as A explains C and E. A can be the concluding one as it gives an explanation to the preceding sentences C and E which speak of drug addicts' attitude.

Choice (2)

80. As B alone talks of the introduction of quantum theory and its teaching in the universities and institutes, it can be the opening sentence; all other sentences speak about the theory only. D further speaks about the excitement of the discoverers of the theory in relation to teaching. Then C follows explaining how the subject is taught; finally A concludes the paragraph explaining how the subject has become to the scientists. So, the choice is 3.

Choice (3)

81. B can be the first sentence as it introduces the topic – 'painting' besides posing a question to which you find an explanation in D which starts with the key word – 'Perhaps'; CEA follow with A as conclusion first.

Choice (3)

- **82.** D is the surest sentence for an opening as it focuses on detective stories which are the subject matter around which other sentences as are given in the answer choice 3 revolve. Choice (3)
- **83.** By speaking about the fish in aquarium, C opens the discussion. Hence obviously it should be the first sentence. As there are no answer choices starting with C, obviously the answer is 2.

 Choice (2)

Key for TEP0511

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