T.I.M.E.
Triumphant Institute of Management Education Pvt. Ltd.

(Key and Solutions for AIMCAT1622N)

Key

SECTION – I

1. B	6. D	11. A	16. C	21. 150	26. C	31. D
2. 48	7. B	12. A	17. 15	22. 133100	27. A	32. A
3. A	8. C	13. B	18. A	23. D	28. C	33. B
4. 40000	9. D	14. C	19. 30	24. B	29. D	34. C
5. C	10. B	15. 143	20. D	25. D	30. 36	

SECTION – II

35. 650	40. A	45. C	50. A	55. A	60. B	65. D
36. D	41. C	46. B	51. C	56. D	61. A	66. 5
37. 400	42. 21.21	47. A	52. C	57. B	62. C	
38. B	43. 16.95	48. 4	53. D	58. D	63. C	
39. D	44. C	49. 3	54. B	59. C	64. 7	

SECTION – III

67. C	74. CADBE	81. D	88. B	95. C
68. CEADB	75. A	82. C	89. C	96. C
69. C	76. DACEB	83. A	90. D	97. B
70. BDACE	77. CE	84. D	91. A	98. A
71. B	78. C	85. A	92. A	99. A
72. C	79. B	86. B	93. B	100. D
73. A	80. B	87. ACE	94. D	

Solutions

Section – I

Solutions for questions 1 to 34:

1. Surface area of a sphere α radius^2 and volume $\propto$ raidus^3

	Initial	Final
Surface area	100	196
Radius	10	14
Volume	10^3	14^3

$\therefore$ Volume increases by $\frac{14^3}{10^3} - 1 = 174.4\%$ Choice (B)

2. $24^2 < 577 < 25^2$
$\therefore$ The required number is $625 - 577 = 48$. Ans: (48)

3. $225 = 3 \times 3 \times 5 \times 5$
$= 1 \times 5 \times 5 \times 9$
$= 1 \times 3 \times 5 \times 15$
$= 1 \times 3 \times 3 \times 25$
$= 1 \times 1 \times 15 \times 15$
$= 1 \times 1 \times 5 \times 45$
$= 1 \times 1 \times 3 \times 75$
$= 1 \times 1 \times 9 \times 25$
$= 1 \times 1 \times 1 \times 225$
The sum of the ages can be $3 + 3 + 5 + 5 = 16$
$1 + 5 + 5 + 9 = 20$
$1 + 3 + 5 + 15 = 24$
$1 + 3 + 3 + 25 = 32$ - - - - - (A)
$1 + 1 + 15 + 15 = 32$ - - - - - (B)
$1 + 1 + 5 + 45 = 52$
$1 + 1 + 3 + 75 = 80$
$1 + 1 + 9 + 25 = 36$
$1 + 1 + 1 + 225 = 228$
Except cases (A) and (B) for other cases, we can find out the exact ages.
$\therefore$ The age of the youngest son must be 1 year.

Alternative Solution:

Considering the options, choice (B), i.e., 2, is not a factor of 225. Hence, it is not possible. Now, if the youngest son is 3 years old, then the other three must be (3, 5, 5), in which case all individual ages are found. Hence, 3 is also not possible. Further, the youngest cannot be older than 3 years, since we can't find factors of 225 that are all greater than 3. Therefore the youngest son must be 1 year old, i.e., choice (A). Choice (A)

4. Let the amounts be $3x$, $2x$, $5x$ and $4x$.
Interest accrued on $3x = 3x \times \frac{5}{100} = \frac{15x}{100}$
Similarly, the interest accrued on $2x$, $5x$ and $4x$ will be $\frac{11x}{100}, \frac{40x}{100}$ and $\frac{28x}{100}$.
Total interest accrued = 94000
$\Rightarrow \frac{1}{100}(15x + 11x + 40x + 28x) = 94000$
$\Rightarrow x = 100000$
$\therefore$ Interest on $5x$ is $\frac{40x}{100} = 40{,}000$. Ans: (40000)

5. If a number of has 15 factors, then it must either be of the form P^{14} or $(P_1^2)(P_2^4)$ where P, P_1, P_2 are prime numbers. The smallest number of the form P^{14} is $2^{14} = 16384$ (a five digit number) and $(P_1^2)(P_2^4) = 3^2 \times 2^4 = 144$
Since, the given number is a four-digit number, it cannot be of the form P^{14}. So, it is of the form $(P_1^2)(P_2^4)$.
$\therefore$ The square of the number $(P_1^4)(P_2^8)$ which has (4 + 1) (8 + 1) i.e. 45 factors. Choice (C)

6. AD 4 i.e. $\begin{array}{r} x\ \ E \\ \hline A\ 206 \end{array}$

E can be 4 or 9, but 4 x D + 1 cannot end in zero, hence, E has to be 9.
And also 9 x 4 = 36
$\Rightarrow$ 9 x D + 3 ends in zero $\Rightarrow$ D = 3
A x 9 + 3 = A2
only possible value of A is A = 1
$\therefore$ A + E = 1 + 9 = 10 Choice (D)

7. Given that $P = \sqrt{a} - \sqrt{b}$ $(a > b)$ and $a - b = 1$
As a and b are two consecutive positive integers, we have

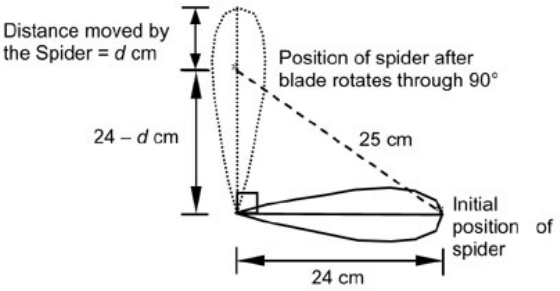
$$\frac{1}{P} = \sqrt{a} + \sqrt{b}$$

$$\Rightarrow P + \frac{1}{P} = 2\sqrt{a} \text{ and } P - \frac{1}{P} = -2\sqrt{b}$$

$$\therefore \left(P + \frac{1}{P}\right)\left(P - \frac{1}{P}\right) = -4\sqrt{ab}$$

$$\left(P^2 - \frac{1}{P^2}\right)^2 = 16ab$$ Choice (B)

8.



The spider has covered d cm.
Now $(25)^2 = (24)^2 + (24 - d)^2$
$\therefore 24 - d = 7$
$d = 17$

$\therefore$ Speed = $\frac{17}{4}$ cm/s = 4.25 cm/s Choice (C)

9. Let the runs scored by then five batsmen be $a - 2d$, $a - d$, a, $a + d$, $a + 2d$.
Total score is 225 $\Rightarrow a = 45$
The batsman with the highest score scored $45 + 2d$ runs. As $2d$ is an even number $45 + 2d$ cannot be an even number. Hence, the batsman with the highest score cannot score 54 runs. Also, $45 + 2d > 45$, since the scores are all distinct. Hence 45 cannot be the highest score. Further, the lowest score cannot be lower than zero $\Rightarrow 45 - 2d \geq 0$, i.e., $2d \leq 45$. Therefore, $45 + 2d$ must be less than or equal to 90, i.e., $45 + 2d$ can assume a maximum value of 89 (since it must odd). Hence 91 is not possible. Hence three of the given values are not possible. Choice (D)

10. Given the line $kx + 3y - 12 = 0$ i.e., $\frac{x}{(12/k)} + \frac{y}{4} = 1$

encloses
(1/2) $\times$ |x-intercept| $\times$ |y-intercept| = 12

$$(1/2) \times \left|\frac{12}{k}\right| \times |4| = 12$$

$\Rightarrow |k| = 2$
$k = \pm 2$ Choice (B)

11. Assume A's age in 2015 as x. The data is then as follows:

	Age in 2015	Year of birth	Age in 2007
A	x	$2015 - x$	$(x - 8)$
B	$2015 - 21x$	$21x$	$2007 - 21x$

As A's year of birth is 96 times B's age, we get
$2015 - x = 96 (2015 - 21x)$.
$\Rightarrow 96(21)x - x = (2015)(96 - 1)$

$$\Rightarrow x = \frac{(2015)(95)}{(2015)} = 95$$

$\therefore$ A's age in 2007 is 87

Alternative Solution:

Trying out the answer choices, it can be seen that choice (A) satisfies. Also, "cannot be determined" is not present among the choices. Choice (A)

12. From the graph, it can be seen that at $x = 1$, $y = 0$
$\therefore$ Option A and D are ruled out.
At $x = 0$, in the graph, y is positive and equal to 1.
$\therefore$ Option B is also ruled out.
$\therefore$ $y = |x - 1|$ is the graph. Choice (A)

13. Let the mileage of Zap be x km/ℓ.
$\therefore$ The mileage of Wow in $1.15x$ km/ℓ.
The fuel consumption of Zap is $1/x$ ℓ/km.

$\therefore$ The fuel consumption of Whoosh is $\frac{1.1}{x}$ ℓ / km, i.e., its mileage is $\frac{x}{1.1}$ km / ℓ.

$$\therefore \text{Required percentage } \frac{1.15 - \frac{1}{1.1}}{\frac{1}{1.1}}(100\%)$$

= [(1.15) (1.1) – 1]100% = 26.5% Choice (B)

14. It is given that $S_{30} = 2\ S_{20}$
Considering the first term as a and the common difference as d, we get

$$\frac{30}{2}[2a + 29d] = 2\left(\frac{20}{2}\right)[2a + 19d]$$

$\Rightarrow 15[2a + 29d] = 20[2a + 19d]$
$\Rightarrow 10a = 55d \Rightarrow 2a = 11d$

$$\text{Now } \frac{S_{32}}{S_{42}} = \frac{32/2[2a + 31d]}{42/2[2a + 41d]}$$

$$= \frac{32[11d + 31d]}{42[11d + 41d]} = \frac{32[42d]}{42[52d]} = \frac{8}{13}$$ Choice (C)

15. Let V(in km/hr) be the speed by which the top speed reduces when n wagons are attached to the engine.
Given that, $V \propto \sqrt{n}$
$\Rightarrow V = k\sqrt{n}$
Also given that when $n = 25$, V = 80 – 55 = 25 km/hr
$\Rightarrow 25 = k\sqrt{25}$
$\Rightarrow k = 5$
$\therefore$ When V = 80 – 20 i.e., 60 km/hr
$60 = 5\sqrt{n}$
$\Rightarrow n = 12^2 = 144$.
Since the speed must be more than 20 km/hr, only 143 wagons should be attached. Ans: (143)

16. As the well can hold 7,20,000 litres of water, the volume of well is 7,20,000/1,000 = 720 m^3.
10% of the water (i.e., 72 m^3) can fill the remaining area upto 0.3 m.
Thus remaining area $\times$ 0.3 = 72
$\Rightarrow$ Remaining area = 240 m^2
The area of the field (including well) = 20 $\times$ 15 = 300 m^2
Area used for construction of well = 300 – 240 = 60 m^2
Volume of the well = Area $\times$ Depth
$\Rightarrow$ 720 = 60 $\times$ D $\Rightarrow$ D = 12 m Choice (C)

17. Given problem has the form LCM model 2.
$\therefore$ General form of the number satisfying the given conditions = k L.C.M (4, 5, 6, 7, 9) – (constant difference between each divisor and the remainder it leaves)
(where k is any positive integer)
$\therefore$ The required number is of the form $1260k - 3$.
N is the least 5 digit number of this form.
$\therefore$ $1260k - 3 \geq 10000$ and k has the least possible value.

$\therefore k \geq 7\frac{1180}{1260}$

$\therefore k = 8$
$\therefore N = 10077$
Sum of the digits of N = 15 Ans: (15)

18. Let the length of the track on which Rajesh ran first be L_1 and that of the other track be L_2. Ratio of the speeds of Rajesh and Ramesh is the ratio of the distances covered, i.e. $L_1 : L_2$
The ratio after interchanging the tracks is $2L_2 : L_1$
As the ratio of speeds remain the same, $\frac{L_1}{L_2} = \frac{2(L_2)}{L_1}$

$\Rightarrow \frac{L_1}{L_2} = \frac{\sqrt{2}}{1}$

Thus the ratio of speeds is $\sqrt{2}$: 1 Choice (A)

19. As in 60 seconds $\frac{2}{3}$rd of the tank is filled, in 30 seconds $\frac{1}{3}$rd of the tank will be filled.

$\therefore$ The remaining part i.e., $1 - \frac{2}{3} = \frac{1}{3}$rd of the tank is filled in 30 seconds. Ans: (30)

20. Let the given sum be denoted by S.

$S = 1 + \frac{4}{5} + \frac{9}{5^2} + \frac{16}{5^3} + ...$

Instead of the number 1/5, it is more convenient to work with a symbol.

$\therefore$ Let $\frac{1}{5} = x$

$S = 1 + 4x + 9x^2 + 16x^3 + ... (1)$
$Sx = x + 4x^2 + 9x^3 + ... (2)$
$S(1 - x) = 1 + 3x + 5x^2 + 7x^3 + ... (3)$. By [(1) – (2)]
$Sx(1 - x) = x + 3x^2 + 5x^3 + 7x^4 + ... (4)$
$S(1 - x)^2 = 1 + 2x + 2x^2 + ... (5)$. By ((3) – (4))

$$S = \frac{1+\frac{2x}{1-x}}{(1-x)^2} = \frac{1+x}{(1-x)^3} = \frac{1+\frac{1}{5}}{\left(1-\frac{1}{5}\right)^3} = \frac{75}{32}$$

Alternative Solution:

Evaluating the first four or five terms of the series and comparing the sum of those terms with the values of the answer choices can help identify the correct answer choice.

$\therefore 1 + 0.8 + 0.36 + 0.128 + 0.04 + ... \equiv 2.292$ which is just less than $2\frac{1}{3}$. Clearly $\frac{75}{32}$ (i.e., choice (D)) is the answer since both choices (A) and (B) are greater than $2\frac{1}{3}$, while choice (C) is less than 2. Choice (D)

21. Consider the five zones, Z_1, Z_2, Z_3, Z_4 and Z_5. Four lines are required to connect the towns in the same zone and each zone contains 3 towns. The number of lines required to connect the pairs of towns is any one zone is $^3C_2$ (4) = 12. The number of lines required to connect pairs of towns in all the five zones = 5(12) = 60.
The number of lines required for one town in zone Z_1 to be connected with any town from the remaining zones is 1. Since zone Z_1 contains three towns, the number of lines required to connect all towns of zone Z_1 to all the towns in the remaining zones is 3(12) = 36. Similarly all the towns in Z_2 will be connected with all the towns in Z_3, Z_4, Z_5, with 3(9) or 27 lines.

Similarly towns in Z_3 are connected with the towns in the remaining zones using 18 lines and towns in Z_4 are connected with the town in the remaining zones (I.e. Z_5) using 9 lines. Hence the number of lines required to connect all the towns in one zone to all other towns in the other zones is 36 + 27 + 18 + 9 = 90
Hence the total number of direct lines required
= 60 + 90 = 150 Ans: (150)

22. Let the amount Amit will pay at the end of each year be k. The present value of all the amounts paid is equal to the loan amount.

$$3,31,000 = \frac{k}{\left(1+\frac{r}{100}\right)} + \frac{k}{\left(1+\frac{r}{100}\right)^2} + \frac{k}{\left(1+\frac{r}{100}\right)^3}$$

$$= k\left(\frac{1}{1.1} + \frac{1}{1.21} + \frac{1}{1.331}\right) = k\left[\frac{1.21+1.1+1}{1.331}\right] = \frac{3.31}{1.331}$$

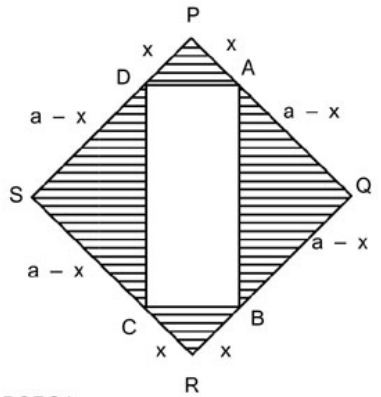
$$k = 3,31,000 \times \frac{1.331}{3.31} = 1,33,100$$

Alternative Solution:

$$\text{Each instalment} = \frac{p.r}{100\left[1-\left\{\frac{100}{(100+r)}\right\}^n\right]}$$

$$= \frac{3,31,000 \times 10}{100\left[1-\left\{\frac{100}{110}\right\}^{23}\right]} = 1,33,100$$ Ans: (133100)

23.



Given PQRS is square
Area of shaded region

$$= 2\left(\frac{1}{2}x^2\right) + 2\left(\frac{1}{2}(a-x)^2\right)$$

$= x^2 + (a - x)^2 \rightarrow$ (1)

$AC = \sqrt{(BC)^2 + (AB)^2} = \sqrt{(\sqrt{2}x)^2 + (\sqrt{2}(a-x))^2}$

$= \sqrt{2x^2 + 2(a-x^2)} = 24 \Rightarrow \sqrt{2(x^2 + (a-x)^2)} = 24$

$\Rightarrow x^2 + (a - x)^2 = 288\ cm^2$

Alternative Solution:

Analysing the figure and considering a few special cases can yield the answer, without actually having to solve the question. Firstly, if the rectangle ABCD is assumed to be a square (since there is no 'cannot be determined' among the answer choices), then AC will become equal to the side of the main square PQRS, and area of ABCD will be 50% of that of PQRS. Hence, $\frac{(24)^2}{2} = 288$.

Another approach would be the assume ABCD to be extremely thin, such that AC itself will become the diagonal of PQRS, and the shaded area will become equal to the area of the main square PQRS. Hence, $\left(\frac{24}{\sqrt{2}}\right)^2 = 288$.

Choice (D)

24. Since the overall weight loss is 25% and the heavier watermelon incurs a weight loss of 25%, the lighter watermelon also incurs a weight loss of 25%

Choice (B)

25. Given,

$\log_{\frac{8}{5}}(2-x) \le \log_{\frac{8}{5}}\left(\frac{1}{5}\right)$

$\Rightarrow 2 - x \le \frac{1}{5}$ [$\because$ base > 1]

$\Rightarrow x \ge 2 - \frac{1}{5}$ i.e., $x \ge \frac{9}{5}$ $\rightarrow$ (1)

Also $\log_{\frac{8}{5}}(2-x)$ is defined only if $2 - x > 0$

$\Rightarrow x < 2$ $\rightarrow$ (2)

$\therefore$ from (1) and (2), we have

$\frac{9}{5} \le x < 2$ Choice (D)

26. $4n + x = (n + 1) \times 7$

$\Rightarrow x = 3n + 7$ Choice (C)

27. The salary of the employee from 1st Jan'2000 to 31st Dec'2000 is ₹11000 per month.

From 1st Jan'2000 to 31st Dec'2001, the salary per month will be ₹11000 + ₹1000 = ₹12000.

From 1st Jan'2002 to 31st Dec'2002, the salary per month will be ₹13000. From 1st Jan'2003 to 31st Dec'2003, the salary per month will be ₹13000 + ₹1500 = 14500.

$\therefore$ The total contribution of the employee towards EPF scheme from 1st Jan'2000 to 31st Dec'2003.

$= [11000 + 12000 + 13000 + 14500] \times (12)\left(\frac{15}{100}\right)$

= ₹90900.

$\therefore$ the total money the person will get at the time of retirement is $₹(90900)\frac{(100+75)}{100}$ = ₹159075. Choice (A)

28. No. of factors of $N = a^p b^q c^r$ where a, b, c are prime numbers is $n = (p + 1)(q + 1)(r + 1)$.

$\therefore$ Each part of this expression corresponds to a prime factor.

Now $20 = 19 + 1 = (1 + 1)(9 + 1) = (1 + 1)(1 + 1)(4 + 1)$

The number can be of the form a^{19}, b^9, abc^4

$\therefore$ It can have at most 3 prime factors. Choice (C)

29. Tap A was open for the first 15 minutes, before tap C is opened.

$\therefore$Part of the tank filled by tap A = $\frac{15}{40}$.

Before C is opened, Tap 'B' was opened for 5 minutes.

$\therefore$Part of the tank filled by tap B = $\frac{5}{60}$.

After 'C' is opened remaining part of the tank left to be filled

$= 1 - \left(\frac{15}{40} + \frac{5}{60}\right) = \frac{65}{120}$. When A, B, C operate together, fraction of the tank that gets filled

in one minute.= $\frac{1}{40} + \frac{1}{60} + \frac{1}{100} = \frac{15+10+6}{600} = \frac{31}{600}$.

$\therefore$Time taken to fill the remaining part of the tank

$= \frac{\frac{65}{120}}{\frac{31}{600}} = \frac{65 \times 5}{31} = \frac{325}{31} = 10\frac{15}{31}$ minutes.

Alternate solution:

Let the three pipes together be opened for x minutes.
Then A was opened for $x + 15$ minutes, B for $x + 5$ minutes and c for x minutes.

$\therefore \frac{x+15}{40} + \frac{x+5}{60} + \frac{x}{100} = 1$

$\Rightarrow x = 10\frac{15}{31}$ Choice (D)

30. The product of the four digits will be 18 in the following ways.

I (1) (1) (2) (9) = 18
II (1) (1) (3) (6) = 18
III (1) (2) (3) (3) = 18

The number of four digit numbers that can be formed for the above cases are tabulated below.

		Number of four digit numbers
I	(1) (1) (2) (9)	$\frac{4!}{2!} = 12$
II	(1) (1) (3) (6)	$\frac{4!}{2!} = 12$
III	(1) (2) (3) (3)	$\frac{4!}{2!} = 12$

Therefore the total number of four-digit numbers such that the product of the digits is 18 is (12 + 12 + 12)
i.e. 36 Ans: (36)

31. $\frac{1029}{1025}, \frac{1030}{1026}, \frac{256 \times 4}{255 \times 4}, \frac{1023}{1019}$ can be changed to

$\frac{1029}{1025}, \frac{1030}{1026}, \frac{1024}{1020}, \frac{1023}{1019}$

can be rewritten as $1 + \frac{4}{1025}, 1 + \frac{4}{1026}, 1 + \frac{4}{1020}, 1 + \frac{4}{1019}$

Clearly, $1 + \frac{4}{1019}$ is greater than the rest since it has the smallest denominator. Choice (D)

32. Let Raju's speed be x kmph.

$\frac{490}{x+21} = \frac{490}{x} - 3$

$490\left(\frac{1}{x} - \frac{1}{x+21}\right) = 3$

$490\left(\frac{21}{x(x+21)}\right) = 3$

$x^2 + 21x - 3430 = 0$

$(x + 70)(x - 49) = 0$

As $x > 0$, $x = 49$

Alternative Solution:

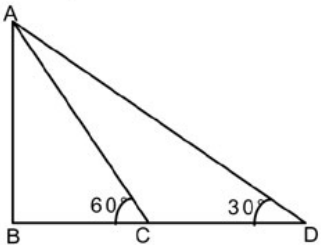
Using the answer options we get

Choice (A): $\frac{490}{49} - \frac{490}{(49+21)} = 10 - 7 = 3$

$\therefore$ Choice (A) satisfies.

It is therefore not necessary to check for the other choices, since there is no "cannot be determined" among the choices. Choice (A)

33. Let the height of the light house, A B be ℓ m.



In the above figure,

BD = $\frac{AB}{\tan 30^\circ} = \ell\sqrt{3}$

and

BC = $\frac{AB}{\tan 60^\circ} = \frac{\ell}{\sqrt{3}}$

It is given that, the ship approached $100\sqrt{3}$ towards the light house, i.e. it covered C D or $\left(l\sqrt{3} - \frac{\ell}{\sqrt{3}}\right)$ m

Now $\ell\sqrt{3} - \frac{\ell}{\sqrt{3}} = 100\sqrt{3} \Rightarrow \frac{2\ell l}{\sqrt{3}} = 100\sqrt{3}$

$\therefore \ell$ = 150 m Choice (B)

34. $n^3 - 4n^2 - 16n + 64 \le 0$

$n^2 (n-4) - 16 (n-4) \le 0$

$(n^2 - 16) (n-4) \le 0$

$(n+4) (n-4)^2 \le 0$

For all values of n, $(n-4)^2 \ge 0$

Since n is positive $n + 4$ can never be less than zero.

Hence $n = 4$ is the only positive integer value of n that is possible. Choice (C)

Difficulty level wise summary - Section I	
Level of Difficulty	Questions
Very Easy	2, 19, 24, 26
Easy	1, 4, 6, 7, 12, 13, 17, 18, 29, 31, 32, 33
Medium	5, 8, 9, 10, 11, 14, 15, 16, 21, 22, 23, 25, 27, 28, 30, 34
Difficult	3, 20
Very Difficult	–

Section – II

Solutions for questions 35 to 38:

Since the maximum capacity of each pipeline is 750 klpm and there is no slack in the pipelines connecting depots A, D, and B, total flow from XYZ is 2250 klpm. Since depot G receives oil from only C, and A and C together require 700 klpm, the requirement at G is 50 klpm (since requirement at all depots is met).

35. Since the total supply of oil is 2250 klpm, F + J = 250

For the slack through DF to be maximum, the flow through DF has to be minimum. This is possible when the demand at F is equal to or less than the minimum possible flow through DF. Since 750 klpm of oil enters D, 300 klpm is consumed at D, and minimum oil should flow through DF, maximum oil should flow through DE, which is 350 klpm

$\Rightarrow$ 100 klpm flows through DF.

$\therefore$ Maximum possible slack in DF = 750 – 100 = 650 klpm. Ans: (650)

36. The slack in the pipeline connecting B and E can vary depending on the supply from D to E. Choice (D)

37. For the slack in the pipeline connecting B and H to be minimum possible, the flow must be the maximum possible i.e., 750 – 400 = 350

$\therefore$ Minimum slack is 750 – 350 = 400 klpm. Ans: (400)

38. Since the total supply of oil is 2250 klpm, F + J = 250

Requirement at J = 250 – F = 250 – 150 = 100 klpm.

Choice (B)

Solutions for questions 39 to 42:

39.

Bank	Total Assets / Sales
SBI	$11 < \frac{460071}{38840} < 12$
ICICI	$12 < \frac{153435}{12355} < 13$
PNB	$12 < \frac{126419}{10126} < 13$
Canara Bank	$12 < \frac{110305}{8757} < 13$
Bank of Baroda	$12 < \frac{97664}{7521} < 13$
Bank of India	$13 < \frac{95004}{6901} < 14$
IDBI	$\frac{81441}{3411} > 23$
Union Bank of India	$\frac{72442}{5574} \sim 13$

$\therefore$ Bank of India has the second highest ratio.

Choice (D)

40.

Bank	Tax paid (in ₹ crore)	% of Cash profit
SBI	5443 – 4304 = 1139	$\frac{1139}{5443} \times 100 = 20.93\%$
ICICI	2664 – 2005 = 659	$\frac{659}{2664} \times 100 = 24.74\%$
PNB	1709 – 1410 = 299	$\frac{299}{1709} \times 100 = 17.50\%$
Canara Bank	1433 – 1109 = 324	$\frac{324}{1433} \times 100 = 22.61\%$
Bank of Baroda	930 – 677 = 253	$\frac{253}{930} \times 100 = 27.2\%$
Bank of India	574 – 340 = 234	$\frac{234}{574} \times 100 = 40.77\%$
IDBI	400 – 307 = 93	$\frac{93}{400} \times 100 = 23.25\%$
Union Bank of India	889 – 719 = 170	$\frac{170}{889} \times 100 = 19.12\%$

$\therefore$ 40.77% is the highest % Choice (A)

41. Combined Net Profit of the banks in 2013

= 4303 + 2005 + 1410 + 1109 + 677 + 340 + 307 + 710

= ₹10,871 cr

In 2014, the combined Net Profit increases by 20%

$\therefore$ Net Profit in 2014 = 10,871 × 1.2

Average Net Profit in 2014 = $\frac{10{,}871 \times 1.2}{8}$ = ₹ 1630.65 cr

Net Profit of Canara Bank in 2013 = ₹1109 cr

∴ To be equal to Average Net Profit in 2014, the Net Profit of Canara Bank should increase by

$\frac{1630.65-1109}{1109}\times 100 \sim 47\%$ Choice (C)

42. The required percentage = $\frac{1709-1410}{1410}\times 100$

$= \frac{299}{1410}\times 100 = 21.21\%$ Ans: (21.21)

Solutions for questions 43 to 46:

43. Average number of applications received

$= \frac{\text{Total number of applications received}}{4}$

The % change in average number of applications received per university is same as that for total number of applications.

In 2011, total number of applications

= 18926 + 16723 + 18428 + 19201 = 73,278

In 2013, total number of applications received = 85,701

∴ % increase = $\frac{85701-73278}{73278}\times 100$

$= \frac{12423}{73278} \cong 16.95\%$ Ans: (16.95)

44. For university R,

% increase in applications from (in 00's approximately)

2010 to 2011 = $\frac{184-157}{157}\times 100 \cong 17\%$

2011 to 2012 = $\frac{207-184}{184}\times 100 \cong 12\%$

2012 to 2013 = $\frac{215-207}{207}\times 100 \cong 4\%$

2013 to 2014 = $\frac{235-215}{215}\times 100 = 9\%$

The least % increase occured in 2013. Choice (C)

45. % increase from 2010 to 2013 for

$P = \left(\frac{21432-17326}{17326}\right)\times 100 = 23.7\%$

$Q = \left(\frac{20367-15844}{15844}\right)\times 100 = 28.55\%$

$R = \left(\frac{21533-15692}{15692}\right)\times 100 = 37.22\%$

$S = \left(\frac{22369-16438}{16438}\right)\times 100 = 36.08\%$

The highest percentage increase was obtained by R. Choice (C)

46. The increase in the number of applications from 2011 to 2014 for

P = 23378 – 18926 = 4452

Q = 23019 – 16723 = 6304

R = 23497 – 18428 = 5069

S = 23896 – 19201 = 4695

The highest increase was for Q. Choice (B)

Solutions for questions 47 to 50:

The table below gives details of the terminals and the corresponding flights.

T_1			T_2			T_3			T_4		
Flight	ETA	ETD	Flight	ETA	ETD	Flight	ETA	ETD	Flight	ETA	ETD
6E-372	6:20	8:15	SG-916	6:44	9:08	IT-162	7:06	9:10	IT-3184	7:20	8:59
SG-423	8:28	11:23	6E-168	9:22	10:58	IT-345	9:36	11:07	KF-4197	9:06	10:49
IC-724	11:27	13:16	IC-816	11:13	13:10						

47. It can be observed from the above table that IC-724 is parked at terminal T_1. Choice (A)

48. The shortest difference in the ETD of one flight and ETA of another flight in the same terminal is 4 minutes (observed in case of T_1) Ans: (4)

49. Between 11:23 and 11:27, terminals T_1, T_3 and T_4 are vacant.

∴ At most 3 terminals are vacant. Ans: (3)

50. The Turnaround Times for the ten flights are calculated as follows:

Flight No.	Turnaround time
6E-372	8:15–6:20=115 min
SG-916	9:08–6:44=144 min
IT-162	9:10–7:06=124 min
IT-3184	8:59–7:20=99 min
SG-423	11:23–8:28=175 min
KF-4197	10:49–9:06=103 min
6E-168	10:58–9:22=96 min
IT-345	11:07–9:36=91 min
IC-816	13:10–11:13=117 min
IC-724	13:16–11:27=109 min

The 3rd highest Turnaround Time is 124 min and the 2nd least Turnaround Time is 96 min.

∴ The difference is 124 – 96 = 28 min Choice (A)

Solutions for questions 51 to 54:

The data given in conditions (iii), (iv) and (v) is tabulated as follows.

	Security	Health	Education	Recreation	Wildlife	Finance
P	6					
Q			3			
R			5			4
S			1		3	
T		3				6
U		4			2	

From (ii), either R or T got the 3rd rank in security. As T got the 3rd rank in health, R got the 3rd rank in security.

From (ii), either R or S got the 1st rank in wildlife. From the above table it is clear that R got the 1st rank in wildlife.

From (i), the city with 2nd rank in health should have the 1st rank in security. Only city Q can satisfy the condition.

Now the grid appears as below.

	Security	Health	Education	Recreation	Wildlife	Finance
P	6					
Q	1	2	3			
R	3		5		1	4
S			1		3	
T		3				6
U		4			2	

City R's rank in health can be 1, 5 or 6 but since it already has ranks 1 and 5, it can only be 6 ⇒ R's rank in recreation is 2. ⇒ Rank of city S in health is 5 and that of P in health is 1. Rank of S in finance has to be either 2, 4 or 6 but it cannot be 4 or 6 ⇒ It is 2. Now, the remaining cells in the grid can be easily filled and completed to obtain the grid below.

	Security	Health	Education	Recreation	Wildlife	Finance
P	6	1	2	5	4	3
Q	1	2	3	4	6	5
R	3	6	5	2	1	4
S	4	5	1	6	3	2
T	2	3	4	1	5	6
U	5	4	6	3	2	1

51. City T got the 1st rank in recreation. Choice (C)

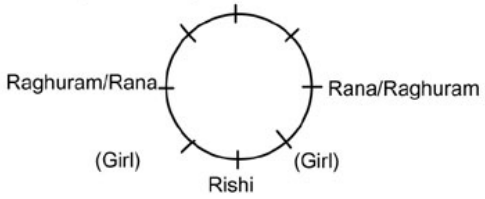
52. The statement given in the third choice is false. Choice (C)

53. S, U, R, P, T and Q is the proper order. Choice (D)

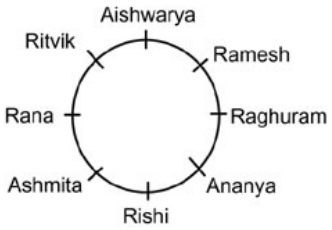
54. The statement given in the second choice is true. Choice (B)

Solutions for questions 55 to 58:

From (v), as Rishi is adjacent to two girls and from (i), on the other side of each of these two women, either Raghuram or Rana is sitting. The arrangement is as follows:



Also, as no two girls are opposite each other, the 3rd girl must be opposite Rishi.
From (ii) and the above results, the 3rd girl must be Aishwarya
∴ Aishwarya is opposite Rishi.
Now, there is only position for Ramesh, the one to the immediate left of Aishwarya.
From (iii) and the above results, Ashmita is to the immediate left of Rishi and Ananya is to the immediate right of Rishi.
From (iv), the final arrangement is as follows.



55. Ritvik is opposite Ananya. Choice (A)

56. Ananya is three places to the right of Rana. Choice (D)

57. Ashmita is to the immediate left of Rishi. Choice (B)

58. Rana is sitting to the immediate right of Ritvik. Choice (D)

Solutions for questions 59 to 62:

59. In the given statement, A said he is a Jhuta. No truth teller or liar can make a statement that he is a Jhuta.
∴A must be an alternator i.e. Alta and his first statement is a lie, hence his second statement is true
⇒ C is a Sachha ⇒ B is a Jhuta. Choice (C)

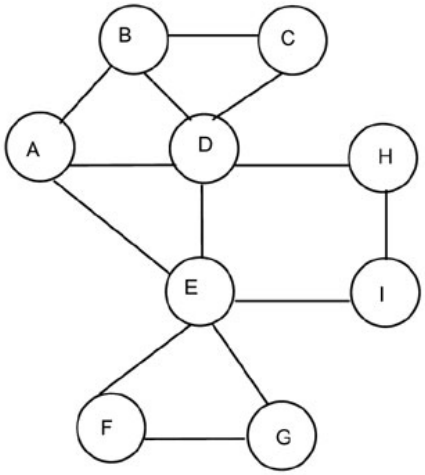
60. From the given statement, R cannot be a Sachha. He cannot be a Jhuta, as if he is a Jhuta, his second statement will be true, which is a contradiction. Hence, R must be an Alta and P is a Jhuta. ⇒ Q is a Sachha. Choice (B)

61. From the given statement
If Z is a Sacha, then X is also a Sacha, which is a contradiction. If Z is a Jhuta, X is an Alta. If Z is an Alta, X is a Sachha.
As X is not an Alta, he is a Sachha and Y is a Jhuta. Choice (A)

62. If N is a Sachha, M is a Jhuta and O is an Atla.
If N is a Jhuta, M is an Atla and O is a Sachha.
If N is an Atla, M is a Jhuta and O is a Sachha.
∴ O cannot be a Jhuta. Choice (C)

Solutions for questions 63 to 66:

The connections can be represented in the form of a network as below.



63. If the person goes in the route
A – B – C – D – H – I – E – F – G (or)
A – B – C – D – H – I – E – G – F
he can visit all the cities.
Only (C) is definitely true.

Alternative solution:

If a person starting from A has to visit all the cities exactly once, then the final city he visits must be either F or G. Before he visits F or G, he must visit city E, which can be visited only after city I, which can be visited only after city H. Choice (C)

64. The possible ways are:
A → E
A → D → E
A → D → H → I → E
A → B → D → E
A → B → D → H → I → E
A → B → C → D → E
A → B → C → D → H → I → E
∴ A total of seven ways are possible. Ans: (7)

65. The possible ways are:
A – B – C – D – H – I – E – F– G
C – B – A – D – H – I – E – F– G
F – G – E – I – H – D – C – B – A
G – F – E – I – H – D – C – B – A
I – H – D – C – B – A – E – F– G

∴ There are no such possible ways starting from cities B, D, E and H. Choice (D)

66. The number of cities visited by that person will be maximum when he takes the route
E – A – B – C – D – H – I and it will be five Ans: (5)

Difficulty level wise summary - Section II	
Level of Difficulty	Questions
Very Easy	42, 46
Easy	44, 45, 55, 56, 57, 58, 59, 60, 61, 62
Medium	35, 36, 37, 38, 39, 40, 41, 43, 47, 48, 49, 50, 51, 52, 53, 54, 63, 64, 66
Difficult	65
Very Difficult	–

SECTION – III

Solution for question 67:

67. Sentence A begins the paragraph as it is a general sentence with the introductory word 'climate science.' Also the word 'tides' provides a precedent to the reference of 'water' choice (B) and 'higher sea levels' Choice (D). Sentence A is followed by sentence D. "higher sea levels ..... clear evidence that **climate change** is real" in sentence D is related to "mean sea levels are among the constants of **climate science**" in sentence A. Sentences DB form a mandatory pair. "slowdown in the rise of average surface temperatures ....." links with "The rise...." So, ADB. Choice (C) is the odd man out as it seems to discuss the problems related to measurement of sea levels. This point needs a precedent. Choice (C)

Solution for question 68:

68. Sentence (C) with the proper noun 'Hamlet' begins the paragraph. Sentences 'ce' form a mandatory pair. "really too sensitive" in sentence (C) links with "by nature melancholic, possessing a fatalistic or suicidal disposition" in sentence (E). Sentences 'ea' form another mandatory pair. "His most famous soliloquy" in sentence (E) links with "musings" (To be or not to be) in sentence (A). Also the word "focuses" in sentence (E) links with ".....indeed, a central question for him" in sentence (A) and "virtue of ending his life" mentioned in sentence (E) connects with "little benefit in continuing to live in a world where injustice reigns." So, CEA. Sentence (D), with the conjunctive adverb 'nevertheless' continues the idea. Inspite of his suicidal disposition, he decides to avenge his father's death. Sentences 'db' are connected. "trying to sort appearance from reality" in sentence (D) links with "invents various devices to help illuminate the truth" in sentence (B). Ans: (CEADB)

Solution for question 69:

69. We are told in the paragraph that the Jarawa do not welcome trespassers. They killed three Indian fishermen who entered their island unawares. So only choice (C) captures the essence of the text. "the only hunter-gatherers who still resist contact with the outside world..." in choice (A) makes it out of scope of the given text. Choice (A) is also incomplete as a summary and it almost repeats the point about "contact with outsiders" twice. In choice (B), the reference to "the tribal people are among the most isolated and unassimilated peoples on Earth" cannot be substantiated. In choice (D), a wrong comparison is made in the first sentence. Choice (C)

Solution for question 70:

70. On a careful reading of the sentences, it can be observed that only sentence (B) can begin the paragraph. It is a general sentence that introduces the term 'future shock'. The other sentences with the pronouns 'these' and 'they' need a precedent. Sentences 'BD' form a mandatory pair. "its roots" in sentence (B) links with "these roots" in sentence (D). Sentence (D) tells us where the roots do not lie (These roots lie not in this or that.....). Sentence (A) follows sentence (D). Sentence (a) provides another list of things where the roots of "future-shock" do not lie (Nor do they lie in .....). Sentence (C) with the contrast conjunction 'instead' hints at where the roots of "future-shock" lie. Sentence (E) concludes the paragraph. So, BDACE. Ans: (BDACE)

Solution for question 71:

71. Choice (C) appears to be true. But inns and resthouses could have been found anywhere. Choice (C) does not even indicate the earliest time period when inns were found. In any case, it would be a restatement from the paragraph and not an inference. The first part of choice (D) cannot be substantiated and the second part of choice (D) is a repetition of the first statement of the paragraph. With the word "therefore", choice (D) indicates an unsubstantiated and incorrect cause-effect sequence. Choice (A) is logically incorrect and does not follow from the paragraph. From the last two sentences of the paragraph, only choice (B) is true. Choice (B)

Solution for question 72:

72. On a close reading of the sentences, it can be inferred that the paragraph is about anthrax spores and sentences D and A form a mandatory pair. "use as biological weapons" in sentence D links with "weaponization accomplished by five state bioweapons programs" in sentence A. Sentence B begins the paragraph. Sentences D and A follow. Sentence C is the odd man out sentence as it talks about a non-military source of anthrax spores. "can **also** be a source of anthrax spores" in sentence C needs a precedent. Choice (C)

Solution for question 73:

73. (B) and (C) are stated in the passage but these do not sum up the essence of the passage. (D) is a false statement. (A) is closest to the content of the passage which talks about the need for widespread acceptance of the need for change and the importance of percolating information to the lower levels. Choice (A)

Solution for question 74:

74. On a careful reading of the paragraph, it can be observed that sentences (A) and (D) have a reference to Queen Elizabeth. Sentence (C) is a general sentence that begins the paragraph. It has the complete name "Queen Elizabeth" and "provided peace and prosperity" resonates with similar viewpoints mentioned in other sentences. Sentence (A) follows as it gives a justification for how Elizabeth's reign increased prosperity (Her frugal policies restored fiscal responsibility). Sentences (A) and (D) form a mandatory pair. "fiscal responsibility" in sentence (A) links with "fiscal restraint" in sentence (D). Sentence (B) follows as it provides another detail about the founding of the stock exchange in England leading to economic development. Sentence (E) concludes the paragraph (clearly more wealth to go around .....) and reiterates the point about "generally increasing prosperity" made earlier in sentence (C). So, CADBE. Ans: (CADBE)

Solution for question 75:

75. Part (A) is correct. In part (B), "biased **with** decades of practices and procedures" is incorrect. It should read: biased **by** decades of practices and procedures. This would make it parallel to the latter part: ..... and **by** its relationships with employees, customers, and suppliers. Part (C) has an error of punctuation. The words "In essence" should be followed by a comma. Part (D) is incorrect as a wrong preposition 'for' is used. It should read: That may count as a form **of** cost cutting..... In part (E), since the comparative 'than' is used, one needs to use

"more" in the sentence. The part should read: ..... they were inspired **more** by the three-wheeled vehicles known in..... So only part (A) is correct. Ans: (A)

Solution for question 76:

76. On a careful reading of the sentences, it can be seen that sentences (A), (C) and (D) talk about 'differences' and sentences (B) and (E) refer to 'child' and 'next generation.' Sentences (D), (E) and (B) have the characteristics of 'introductory sentences' as they are general in nature. But somehow, sentence (E) is related to sentence (C) and can only be placed after sentence (C). The para seems to flow by explaining relevant points about differences between men and women etc. and then goes on to highlight the importance of synergy. So, sentence (B) which talks about 'physical differences' opens the paragraph. Sentences 'da' form a mandatory pair. 'physical differences' in sentence (D) is linked with 'social, mental and emotional differences?' in sentence (A). Sentences 'ac' form another mandatory pair. 'These differences' in sentence (C) refers to the differences mentioned in sentence (A). Also sentence (C), by posing a question and providing reasons, reiterates the point about valuing social, mental and emotional differences, raised earlier in sentence (A). Sentence (E) follows next. "sources of creating new, exciting forms of life" in sentence (C) links with "bring a child into the world". Sentence (B) concludes by expanding on the 'synergistic' view mentioned in sentence (E). So, DACEB.

Ans: (DACEB)

Solution for question 77:

77. In part (A), we need the adverb 'childishly' and not the adjective 'childish'. The adverb 'childishly' modifies the adjective 'innocent'. Part (B) has incorrect sentence structure. It should read: ".....consumes and otherwise depends on daily." Part (C) is correct. Part (D) would need the conjunction 'whether' in place of 'if' to make it parallel with part (E) (or **whether** we are tumbling.....). Also, in part (D), 'cusp for' is incorrect. 'cusp of' is correct. Part (E) is correct. As it is, it presents dangerous and irresponsible juvenility in the abstract. With an article 'a' before "dangerous and irresponsible juvenility", it would present a type of juvenility. Ans: (CE)

Solution for question 78:

78. The argument is that (if the producers want to make money – which is the assumption here) there are ways beyond the movie theatre whereby it can be presented and money made. There argument is NOT about how much is spent. So choice B is not the answer. Choice (A) is beside the point. The response to a film is not considered important. So the courses of action before a movie's release as mentioned in choice A cannot be the answer. Choice (D) discusses an impediment in registering the response or feedback of the audience whereas the paragraph discusses that movie theatre response to a film need not be relied on. So choice (D) runs tangent to the para. Choice (C) is the assumption. Choice (C)

Solution for question 79:

79. On a careful reading of the paragraph, only choice (B) can be inferred. Thralldom means slavery or bondage. The other choices are far-fetched. Choice (B)

Solutions for questions 80 to 95:

Number of words and Explanatory notes for RC:

Number of words : Passage – I: 615
Passage – II: 650
Passage – III: 650
Passage – IV: 692

80. Refer to the concluding sentence of the penultimate paragraph. 'They' refers to people and not to NGOs. People (they) can better fulfill their potential by working together and in so doing reduce the opportunity gap that exists between the advantaged and disadvantaged in society. NGOs are an expression of people's beliefs..... Choices A and D are easily eliminated. Choice (B)

81. The first part of choice A can be easily gathered from the first four sentences of the second para and the second part of choice A can be inferred from the penultimate sentence of the second para: Another consideration (in discussing civil society) is the cultural context. Choice B can be inferred from a careful reading of the third paragraph (third sentence onwards: The three sectors of society.....). Choice C is true. "Being inclusive" has been mentioned as a factor in the last sentence of the third paragraph. Openness in communication, transparency and cooperation have been discussed as essentials for the public participation in the fourth paragraph. From the first two sentences of the penultimate paragraph (In a developing civil society, an ever-increasing number of people ..... different parts of the society and represent its diversity) and the last paragraph (NGOs promote diversity.....), choice D is not true. Diversity is required (obligatory, mandatory) in a developing civil society. Choice (D)

82. Refer to the fourth sentence of the penultimate paragraph. NGOs strengthen the fabric of civil societies in still-fragile, emerging democracies. So only choice C is correct. Choice A is negated by the last two sentences of the passage (..... rather than depend on state power, ... alternative to centralized state agencies). Choice B contradicts the last sentence of the penultimate paragraph. Through NGOs, people can reduce the opportunity gap that exists between the advantaged and disadvantaged in society. Choice D has a negative tone and is incorrect.

Choice (C)

83. The author uses a descriptive style while explaining the requirements of a civil society and focussing on the role of NGOs. He does not merely provide information in a narrative style. The style is not analytical or abstruse (difficult to comprehend). Choice (A)

84. The author only presents research findings related to kinesin movement. There are various lines in the passage indicating this (The researchers' analyses showed that....., To begin their experiments, Vale and his colleagues.....). So choice D is correct. While there is a brief assessment of possibilities at the end of the passage, there isn't enough to make evaluation the primary purpose of the piece. Choice B is not correct. Choice (D)

85. Refer to para 5 where the analogy "The kinesin motor walks along the microtubule much like a person walks along steppingstones across a pond..." appears. Also refer to the explanation: in absence of ATP analogues, the linker neck could pivot either forward or backward, but the binding of an ATP analogue locked the piece of protein in the forward position. After the kinesin released the ATP analogue, however, the neck linker again became mobile. So choice A is correct. Choice B is incorrect. The neck linker does not provide a bridge for the ATP molecule to attach to the kinesin. Choices C and D are incomplete.

Choice (A)

86. Choice A can be inferred from the last paragraph. (..... inhibit those involved in chromosome segregation in mitosis ..... since cancer cells are constantly dividing, such inhibitors might have applications as cancer chemotherapeutic agents .....) (In neurodenerative diseases, a therapy that stimulates the transport system might be effective in treatment .....). Choice B is a distortion of the last sentence of the second paragraph. It is the dyneins that move and not the minus end of the microtubules. Choice C can be easily inferred from the second paragraph (a two-molecule ferry that moves cellular freight along tram tracks composed of microtubules) and the fifth paragraph (The kinesin motor walks along the

microtubule much like a person walks along steppingstones). Choice D can be inferred from the penultimate paragraph (We predicted that ..... That's what we saw clearly). Choice (B)

87. Statement (A) is true. Howard Hughes investigator is a position of Ronald Vale at the University of California, San Francisco. There is no way to tell from the passage who Howard Hughes is. So statement (B) is not true. The 'two-molecule ferry' in statement (C) talks about the link that the kinesin protein forms with another kinesin molecule. So (C) is true. There is no data in the passage to infer statement (D). Statement (E) can be inferred from para 5.

Ans: (ACE)

88. Choice A attempts to give a simplistic summary of the three stages but the characteristics of each stage are not mentioned correctly. From a careful reading of the fourth paragraph, choice B is completely correct. While the characteristics of the first two stages are properly highlighted in choice C, the feature of the last stage is not correctly mentioned. So choice C and choice D are incorrect. Choice (B)

89. The entire second paragraph talks about the leader nation's imperative for internal restructuring, production shifting from one tier to another, nations establishing themselves in a new field ..... and beginning to shift to even more advanced production of microcomputers ..... So choice A can be assumed to be true. Choice B is true from the last sentence of the third paragraph (import substitution takes place through replacing imported items with domestic substitutes) and the importance placed on exports (in the fifth paragraph). Japan's economic development was totally export driven. Before entering the foreign market, Japan conducted extensive research on the products so that they could export better and cheaper products. Choice D is true. If exports are vital to development, then concentrating only on the domestic market will not lead to 'wild geese' kind of development. From the second sentence of the second paragraph, the opposite of choice C is true.

Choice (C)

90. Choice A is not the correct analogy. "Big-push" approach has not been explained in the passage. Choice B is the literal meaning of the flight formation of birds and is contextually irrelevant. Choice C would have been more or less correct if "commands" were replaced with "development impulses" as the passage does speak about development of economies. "Development impulses" is also mentioned in the last paragraph. The term 'wild geese' is expanded on in para 2, which is summed up in Choice D. Refer to para 2: ..... the "lead goose" ..... sheds its low-productivity production to nations further down in the hierarchy in a pattern that then reproduces itself between the countries in the lower tiers. Choice (D)

91. Refer to the fifth para. After the war, however, its economy was in a shambles and the development process had to commence afresh. With financial help from the US and the dissolution of the Zaibatsu, a number of **new businesses** (not markets) began to take root. The term 'dissolution' implies that either 'group' or 'markets' could fit the first blank. Refer to para 5 – ..... the strength of domestic consumption, which was **low** (not as strong as it was) on account of a paucity of incomes ..... the basis of accessing international markets. Japanese ingenuity lay not in copying foreign goods but in analysing them component-by-component and producing something better and cheaper. Since the para indicates that there was diminished demand (and not non-existent demand) this implies that dissolution does not apply to 'markets'. So 'group' is correct. A head of state cannot be dissolved. Further, refer to the last line of para 5 (..... economic development was vigorously **export**-driven) and to para 6 (..... by addressing the **export** market). Both instances show that the economic development of both the countries (Japan and Korea) was export driven. Choice (A)

92. Choice A is the essence of the passage and it resonates with Edward De Bono's statement "We can't find something we have not thought of if the process we employ only tells us what we already suspect." as given in the penultimate para. Also, refer to the second sentence (....if we have to show in advance to some auditor what "deliverables" our research will provide) and third sentence of the penultimate paragraph (This obsession with finding what we are looking for.....). Choice B would be contrary to the author's point of view especially when he weighs inventions over innovations. Also, the passage does not indicate any support for 'unfettered research'. Choice C may be true but it is not a point of view expressed by the author in the passage. The word 'any' in choice D makes it extreme.

Choice (A)

93. The first paragraph explains the difference between inventors and innovators. Innovators go ahead with a fixed notion of the result and the author says "Innovators are anything but inventors: they offer deliverables because their focus is on something already known and improving it." Also, refer to the last two sentences of the penultimate paragraph. Since the results associated with an innovation are fixed, it is easier to get funds for innovation. This implies that invention lacks such fixed or predefined notions of the outcome i.e. it veers into unpredictable territories. Then the last paragraph says that because of this predictability, innovations and not inventions receive funding easily from outcome driven sponsors. Only choice B gives the precise reason. Choice (B)

94. Refer to the third sentence of para 3: ....redraw the very boundaries of what is possible. Also refer to the first and second sentences of the penultimate paragraph: ..... discovering something new takes us "laterally across domains of knowledge to a new place we have never visited". Hence choice A can be inferred. Choice B can be understood from the penultimate paragraph (This obsession with finding what we are looking for is also why we so often mistake innovation for invention) and from other parts of the passage. Choice C is also implied by the word of caution that the author states in the penultimate paragraph. Even the last paragraph says that researchers are so obsessed with the deliverables that they sacrifice creativity for the sake of improvisation. Thus, choice C is supported by the passage. Though the passage says "Innovators are anything but inventors", it is nowhere implied that an innovator cannot look forward to become an inventor, thus choice D is invalid. Choice (D)

95. The main argument of the passage is that in the current scenario, outcome matters more than creativity. Our methods for learning are enslaved by step-by-step approaches to solving problems and hence innovation is valued more than actual invention. Choice A refers to only an example used in the passage (the reference to Edison in the last sentence of para 3 and few sentences in the last para) and does not put forth the main argument. Choice B follows from only the penultimate paragraph. It is not related to the main essence of the passage. Choice D is again too specific and only deals with the example that the author has used to justify his point of view. Refer to the first sentence of the last paragraph. Only choice C presents the main argument of the author. Choice (C)

Solution for question 96:

96. Part (A) requires the use of the indefinite article 'a' before 'turning point'. Part (B) incorrectly uses 'ascent' instead of 'accent' and the word 'Cockney' should be capitalized since it is a type of accent. Part (C) is correct. Part (D) has a modifier error. The adverb 'correctly' needs to be placed before 'singing' as 'correctly' modifies 'singing'. Similarly the word 'earlier, which is more appropriate than 'before', would precede 'failed'. The part should read ".....as well as **correctly** singing other exercises, such as "In Hertford, Hereford and Hampshire, hurricanes .....", in which Eliza had **earlier** failed by dropping....". In part (E), the

conjunction 'but' would be more apt as there is a contrast provided. Spanish rain does not actually stay in the plain **but** it falls mainly in the northern mountains. Ans: (C)

Solution for question 97:

97. The key words in sentence C (**an** emotionally distressing dilemma) and sentence D (**the** inherent dilemma) must be noted. This indicates that sentence C must be placed before sentence D in sequence. Sentence C begins the paragraph with a definition of a double bind. "an individual (or group) **receives** two or more conflicting messages" is the first step in the communication. Sentence C is followed by sentence A (.....**creates** a **situation**...) with an explanation of the consequence of point mentioned earlier in sentence C. Sentence D (.....**therefore** can neither resolve it nor **opt out** of the **situation**) concludes the para. So, CAD. Sentence B brings in a different feature (about the frequency of occurence or observation of a double bind in communication) and can come in another paragraph.
Choice (B)

Solution for question 98:

98. The paragraph differentiates the proletariat which is a revolutionary class from all other classes, so "like all others" and "not a revolutionary class" in choices (B) and (C) are incorrect. The proletariat can stand face to face with the bourgeoisie today unlike the other classes which decay. Choice (D) is incorrect since it says 'can be absorbed by'.
Choice (A)

Solution for question 99:

99. D begins the paragraph by introducing the subject - Che Guevara. Sentences B and C form a mandatory pair. "quintessential icon of various leftist-inspired movements" as given in sentence B links with the recognition and fame accorded to him in sentence C. So, the paragraph, dealing with political relevance, is D-B-C. Choice A is the odd sentence out with the contrast word 'however', as the remaining sentences do not provide any contrast to the point mentioned in sentence A. Though the sentence does refer to the different qualities in Che Guevara, and the appeal that he had, the word 'however' indicates a contrast, which is not present in this para. 'A' would need a suitable precedent and is therefore from a different sub-text.
Choice (A)

Solution for question 100:

100. A mere definition of Moore's second law would not be an inference from the given context. So choice (A) is eliminated. In choice (B), "refurbish" would mean "to repair and make improvements to". So, choice (B) is in sync with the view that computers change quickly and unsuccessful models disappear. Choice (C) is not related to the given context. Choice (D) weakens the last sentence of the paragraph. The last sentence of the paragraph reiterates the importance of software given that programmers don't have the time to write software. Choice (D) makes the process of writing software seem very uncomplicated and easy to achieve. Choice (D)

Difficulty level wise summary - Section III	
Level of Difficulty	Questions
Very Easy	79, 80
Easy	68, 70, 81, 82, 83
Medium	67, 69, 71, 72, 73, 74, 75, 76, 77, 78, 84, 85, 86, 88, 89, 92, 93, 94, 98
Difficult	87, 90, 91, 95, 96, 97, 99, 100
Very Difficult	–