FORM NO. 111

Section 1

Q. 1

Given S= {2, 3, 4, - - - -2n + 1}

X = Average of the odd integers of S

∴ X = Average of 3, 5, 7, - - - - 2n + 1

Since 3, 5, 7, - - - 2n + 1 are in Arithmetic series, average of the series = average of 3 and 2n + 1

$$\therefore X = \frac{3+(2n+1)}{2} = n + 2$$

Given

Y = Average of 2, 4, 6, - - - 2n

Since 2, 4, 6, - - - 2n are in Arithmetic series

Y = average of 2 and 2n

∴ Y = n + 1

Hence X – Y = (n + 2) – (n + 1) = 1

Note: This question is independent of the value of n.

Series	111	222	333	444
Key	2	1	5	3

Q.2

Sum of the ages of the eight members ten years ago = 231 years.

After three years, their sum would be 231 + 8 (3) i.e. 255 years. But at this point one of the members aged 60 years died and a new born entered the family. So, the sum of the ages of the members of the family now = 255 – 60 i.e., 195 years.

After 3 more years, another 60 years old is replaced by a new born. So, the sum of the ages of all the eight members now = 195 + 8 (3) – 60 = 159 years.

After four more years, i.e. at present the sum of their ages = 159 + 8 (4) i.e. 191 years.

$\therefore$ The average age at present is $\frac{191}{8}$ i.e. 24 years

Series	111	222	333	444
Key	5	4	3	1

Q.3

Given that $f(1) + f(2) + f(3) + \text{----------} + f(n) = n^2 [f(n)]$

$\Rightarrow f(1) + f(2) + f(3) + \text{----------} + (n-1) f(n-1) = (n^2 - 1) [f(n)]$

$\Rightarrow (n-1)^2 f(n-1) = (n^2 - 1) [f(n)]$

$$\Rightarrow f(n) = \frac{n-1}{n+1} [f(n-1)]$$

$$\therefore f(9) = \frac{8}{10} \times \frac{7}{9} \times \frac{6}{8} \times \frac{5}{7} \times \frac{4}{6} \times \frac{3}{5} \times \frac{2}{4} \times \frac{1}{3} \times f(1)$$

$$= \frac{2 \times 1}{10 \times 9} \times f(1) = \frac{3600}{45} = 80$$

Series	111	222	333	444
Key	1	5	4	2

Q.4

Let the number of 1 Miso, 10 Misos and 50 Misos used to pay the bill of 107 Misos be x, y and z respectively.

$\therefore x + 10y + 50z = 107$ ----------(i)

Clearly z can take values 0, 1 and 2 only.

Case 1 : $z = 0$

(i) becomes $x + 10y = 107$

$\Rightarrow y = \frac{107 - x}{10}$

$\therefore$ Minimum value of y is 0 and maximum value of y is 10

$\therefore$ There are 11 possibilities when $z = 0$

Case 2: $z = 1$

(i) becomes $x + 10y = 57$

$y = \frac{57 - x}{10}$

$\therefore$ Minimum value of y is 0 and maximum value of y is 5

$\therefore$ There are 6 possibilities when $z = 1$.

Case 3: $z = 2$

(i) becomes $x + 10y = 7$

Clearly $x = 7$ and $y = 0$ is the only solution when $z = 2$

Hence total number of ways in which 107 Misos can be paid is $11 + 6 + 1 = 18$ ways.

Series	111	222	333	444
Key	3	2	1	4

Q.5

Let the amount on the cheque be Rs.x and y paise.
Value of the amount with him initially = (100y + x) paise
Value of the amount with him after buying a toffee
= (100y + x – 50) paise
Given that 100y + x – 50 = 3 (100x + y)
$\Rightarrow$ 97 y – 299x = 50
$\Rightarrow$ 97 (y – 3x) = 8x + 50
To satisfy the equation above, 8x + 50 must be divisible by 97 and also it is even. Hence the least possible value of 8x + 50 = 97(2) = 194
In this case x = 18
$\therefore$ Choice (4) is a valid statement.

Series	111	222	333	444
Key	4	3	2	5

Q.6

$$\frac{1}{m}+\frac{4}{n}=\frac{1}{12}$$

$\Rightarrow 12n + 48\,m = mn$

$\Rightarrow m(n - 48) - 12(n - 48) = (12)\,(48)$

$\Rightarrow (m - 12)\,(n - 48) = 2^6 \times 3^2$

Given that n is odd and less than 60.

Hence, n – 48 is odd and less than 12.

$\therefore$ n – 48 = 1 or 3 or 3^2

$\therefore$ (m, n) has three possibilities.

Series	111	222	333	444
Key	5	4	3	1

Q.7

The average weights of the two sections and the number of students in the two sections are shown below.

Section	I	II
Av. Wt	$W_1 = 45 - x$	$W_2 = 45 + x$
No	50	50

[The total deviation from 45 has to be 0]
After the two changes, Deepak moving to section I, and Poonam to section II, the averages get switched, as shown below.

Section	I	II
Av. Wt	45 + x	45 – x
No	49, Deepak	49, Poonam

In section I, Poonam is replaced by Deepak and the av.wt increases by 2x, i.e., the total weight changes from 50 (45 – x) to 50 (45 + x)
∴ D's weight (d) exceeds P's weight (p) by 100x
i.e., d – p = 100 x ..... (1)
From (A), x = 0.5, i.e., d – p = 50
But we can't get p.
From (B) alone, the averages are as shown below.

Section	I	II
Av. Wt	45	45
No	50 Deepak	49

Initially, the total weight of section I is 50(45 – x)
After D joins, it is 51 (45) = 50(45) + 45
∴ d = 45 + 50x
We can say (from (1)) that p = 50x – 5 but we don't know x.
By combining A, B we can conclude that p = 50(0.5) – 5 = 20. Choice (3)

Q.8

The outer radius R = 5 m

From (A), the inner radius r > 4 m

The capacity (V) = $\frac{4}{3}\pi r^3$

If r = 4 m, V ≈ $\frac{4}{3}\left(\frac{22}{7}\right)(64)$ m^3

= $256\left(\frac{22}{21}\right) m^3 \approx 268\ m^3$

If r = 5 m, V ≈ $\frac{4}{3}\left(\frac{22}{7}\right)(125)\ m^3$

= $\left(\frac{22}{21}\right)(500)\ m^3 \approx 524\ m^3$

So we can't say whether V ≥ 400 m^3 or not.

From (B), the volume of the material of the tank

= $\frac{3(10^3)}{3}\ cm^3 = 10\ m^3$

The total volume occupied by the tank is known to be 524 m^3.

∴ The tank capacity is 514 m^3 which is adequate.

Choice (2)

Q.9

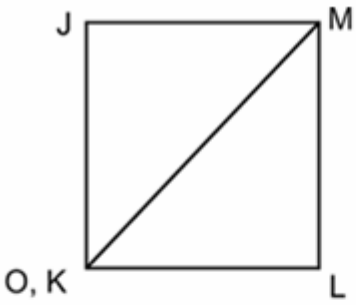
From (A), the minimum value of $x^2 + y^2 + z^2$ is attained when x, y, z are as close to each other as possible, i.e. two of them are 30 and the third is 29.

Hence, the minimum value of $x^2 + y^2 + z^2 = 30^2 + 30^2 + 29^2 = 2641$.

B alone is not a sufficient criterion to arrive at a unique answer.

Choice (1)

Q.10



Given a segment JK and JM is perpendicular to JK.
From (A), there is a point O on JK such that OM = 2OL
If we suppose that it is possible for Rahim to draw a square JKLM, the perpendicular distance of M from JK should be equal to JK
Let P be the midpoint of JK and O be a variable point on JK.
If O = P, OM = OL and OM/OL = 1. As O moves down towards K, OM/OL increases.
When O = K, OM/OL would be $\sqrt{2}$
If O moves up towards J OM/OL decreases.
When O = J, OM/OL = $\frac{1}{\sqrt{2}}$

Hence $\frac{1}{\sqrt{2}} \leq \frac{OM}{OL} \leq \sqrt{2}$

$\therefore$ OM cannot be 2 times of OL.
Hence from (A), we can find why Rahim is unable to draw the intended square. Choice (1)

Q.11 Let T hr be the time gap
and V kmph be the plane cruising speed.

$$\therefore \frac{3000}{V-50} + t = 7 \rightarrow (1) \text{ [when travelling from B to A]}$$

$$\frac{3000}{V+50} - t = 4 \rightarrow (2) \text{ [when travelling from A to B]}$$

$$(1) + (2) \Rightarrow \frac{3000}{V-50} + \frac{3000}{V+50} = 11$$

$$\Rightarrow 3000\,(2V) = 11(V^2 - 2500)$$
$$\Rightarrow 11V^2 - 6000V - 27500 = 0$$
$$\Rightarrow 11V^2 - 6050V + 50V - 27500 = 0$$
$$\Rightarrow 11(V - 550) + 50\,(V - 550) = 0$$

$$\Rightarrow V = 550 \text{ or } \frac{-50}{11}$$

As V is positive V = 550

$$\therefore t = 7 - \frac{3000}{500} = 1$$

t = 1 hour.

Series	111	222	333	444
Key	4	3	2	1

Q.12 Let T hr be the time gap
and V kmph be the plane cruising speed.

$$\therefore \frac{3000}{V-50} + t = 7 \rightarrow (1) \text{ [when travelling from B to A]}$$

$$\frac{3000}{V+50} - t = 4 \rightarrow (2) \text{ [when travelling from A to B]}$$

$$(1) + (2) \Rightarrow \frac{3000}{V-50} + \frac{3000}{V+50} = 11$$

$$\Rightarrow 3000\,(2V) = 11(V^2 - 2500)$$
$$\Rightarrow 11V^2 - 6000V - 27500 = 0$$
$$\Rightarrow 11V^2 - 6050V + 50V - 27500 = 0$$
$$\Rightarrow 11(V - 550) + 50\,(V - 550) = 0$$

$$\Rightarrow V = 550 \text{ or } \frac{-50}{11}$$

As V is positive V = 550

$$\therefore t = 7 - \frac{3000}{500} = 1$$

v = 550

Series	111	222	333	444
Key	2	1	4	3

Q.13 Let Rs.x, Rs.y and Rs.z be the amount invested in option A, option B and option C respectively.

Here, in order to calculate the return of the investment we have to consider two cases namely a rise in the market and a fall in the market. If there is a rise in the market, the return of investment is 0.1% of (x) + 5% of (y) – 25% of (z) ———— (1)

If there is a fall in the market the return of investment is 0.1% of (x) – 3% of (y) + 2% of (z) ———— (2)
Let 'R' be the guaranteed return of investment. Clearly R is the minimum of the expressions (1) and (2).

Now 'R' will be maximum when (1) = (2)
i.e., $0.1x + 5y - 25\%\, z = 0.1\%\, x - 3\%\, y + 2\%\, z$
$\Rightarrow 8\%\, y = 4.5\%\, z$
$\Rightarrow 16\, y = 9\, z$
$\Rightarrow 16\, y = 9\, z$
$\therefore \frac{y}{z} = \frac{9}{16}$ ———— (3)

Let us take the entire amount to be Rs.100
Cleary if the entire amount is put in option A the return of investment is 0.1%. alternatively if the entire amount is put in option B and option C the maximum return of investment is obtained by investing Rs.36 in option B and Rs.64 in option C (from (3))
∴ In this case
R = 5% (36) – 2.5% (64) [from (1)]
i.e., R = 0.2
∴ In this case return of investment is 0.2%
Hence if the entire amount is invested in option A we get R = 0.1% and if the entire amount is invested in option B we get R = 0.2%
∴ Maximum guaranteed return is 20%, since any combination of option A, B and C will give a return of investment between 0.1% and 0.2%.

Series	111	222	333	444
Key	3	2	1	4

Q.14 Let Rs.x, Rs.y and Rs.z be the amount invested in option A, option B and option C respectively.

Here, in order to calculate the return of the investment we have to consider two cases namely a rise in the market and a fall in the market. If there is a rise in the market, the return of investment is 0.1% of (x) + 5% of (y) – 25% of (z) ———— (1)

If there is a fall in the market the return of investment is 0.1% of (x) – 3% of (y) + 2% of (z) ———— (2)
Let 'R' be the guaranteed return of investment. Clearly R is the minimum of the expressions (1) and (2).

Clearly from the previous question it is clear that we get maximum return of investment when the entire investment is made in option B and option C.
Also the investments in option B and option C are in the ratio 9 : 16
∴ 36% in option B and 64% in option C will maximize the guaranteed return.

Series	111	222	333	444
Key	2	1	5	3

Q.15 From the definition of S clearly, the number of elements of S is ${}^{n}C_{2}$.

Let us consider a member (i, j) of S. Now the enemies of (i, j) will be the pairs which do not contain i and j hence excluding i and j from the remaining (n – 2) numbers we get ${}^{(n-2)}C_{2}$ pairs.

∴ The number of enemies for each member of S is ${}^{(n-2)}C_{2}$ i.e $\frac{(n-2)(n-3)}{2}=\frac{1}{2}[n^2-5n+6]$

Series	111	222	333	444
Key	4	3	2	5

Q.16 Let us consider the common friends of (i, j) and (j, k). Clearly (i, k) is a common friend to both (i, j) and (j, k). Also all the pairs which contain 'j' as one of the element will be common friends to both (i, j) and (j, k). There will be (n – 1) pairs that contain 'j' as one of the element out of which (i, j) and (j, k) are also members. So excluding them we will have (n – 3) pairs containing 'j' as an element.

∴ Total number of common friends number of common friends in (n – 3) + 1 = n – 2

Series	111	222	333	444
Key	4	3	2	5

Q.17 Since there are n teams with k players in each team the total number of players will be $n \times k$ provided there are no common players. But it is given that there is exactly one common player in the teams (T_1, T_2) (T_2, T_3) ----- (T_n, T_1)

Hence the total number of common players is n.

$\therefore$ Total number of players is $nk - n = n(k - 1)$

Series	111	222	333	444
Key	1	5	4	2

Q.18 Let the number 'N' be denoted by aabb

$N = aabb$

$N = 1000a + 100a + 10b + b$

$N = 11 [100a + b]$

$\therefore$ 'N' is a multiple of 11. Also it is given that 'N' is a perfect square. 'N' has to be an even multiple of 11 because if 'N' is an odd number and a perfect square, the unit's digit will be odd and ten's digit will be even.

$\therefore$ N is an even multiple of 11 and also a perfect square.

Hence N is a multiple of 22^2.

$\therefore$ The possible values of N are 22^2, 44^2, 66^2 and 88^2

But of them $88^2 = 7744$ is the only number that is of the form aabb.

Series	111	222	333	444
Key	5	4	3	1

Q.19 The production cost for 20 units is 400c + 20b + 240 ---- (1)
The production cost for 40 units is 1600c + 40b + 240 ---- (2)
The production cost for 60 units is 3600c + 60b + 240 ----- (3)
Given that,

$$1600c + 40b + 240 = \frac{5}{3}(400c + 20b + 240)$$

$280c + 2b = 48$ ----- (4)
Also given that

$$3600c + 60b + 240 = \frac{3}{2}(1600c + 40b\ 240)$$

$$\therefore c = \frac{1}{10}$$

From (4) and $c = \frac{1}{10}$, we have b = 10.
Now if 'x' units are produced the profit of Mr. David is given by
$30x - (cx^2 + bx + 240)$

$$= 30x - \left(\frac{1}{10}x^2 + 10x + 240\right)$$

$$= \frac{1}{10}[-x^2 + 200x - 2400]$$

For this to be maximum, $-x^2 + 200x - 2400$ must be maximum and the maximum value of the quadratic expression is obtained at $x = -\left(\frac{200}{2(-1)}\right)$

= 100.
∴ Mr. David should produce 100 units to maximize the profit.
Note: The maximum value of the quadratic expression $ax^2 + bx + c$ $(a < 0)$ is obtained when $x = -b/2a$

Series	111	222	333	444
Key	2	1	4	3

Q.20 Maximum profit $= \frac{1}{10}[-(100)^2 + 20(100) - 2400]$

$= \frac{1}{10}[-10,000 + 20,000 - 2400]$

$= \frac{1}{10}[7600] = 760$

Series	111	222	333	444
Key	4	3	2	1

Q.21 If n = 100,
100 + 0.10n = 110.
And 89 + 0.15n = 104.
∴For $n \leq 100$, the prices of these two varieties of tea will not be equal.
From the 100th day onwards, the price of Darjeeling tea will be Rs.110 per kg

Now for 89 + 0.15n to be equal to 110, $n = \frac{21}{0.15} = 140$.

∴ On the 140th day of 2007, the required situation will arise
i.e., on $(31 + 28 + 31 + 30 + 20)^{th}$ day i.e., on May 20, 2007, the required situation will arise.

Series	111	222	333	444
Key	3	2	1	4

Q.22 For $\angle AQP$ to be minimum possible value, A and B must be as close as possible [i.e., they are nearly the same point], then the angle would be approximately zero.
For $\angle AQP$ to be maximum possible value, each circle must pass through the centre of the other circle, in which case, the required angle is 60°.
Hence $0° < \angle AQP < 60°$

Series	111	222	333	444
Key	3	2	1	4

Q.23 Let $f(x) = ax^2 + bx + c$
Given $f(0) = 1$
$\therefore c = 1$
$f(1) = a + b + c = 3$
$\therefore a + b = 2$ —— (1)

As f(x) is maximum at x = 1, $\frac{-b}{2a} = 1$ —— (2)

Solving (1) and (2), a = –2 and b = 4
$\therefore f(x) = -2x^2 + 4x + 1$
$\therefore f(10) = -159$

Series	111	222	333	444
Key	2	1	5	3

Q.24 The sequences a_n and b_n are defined by different expressions for even and odd values of n. The definitions are recursive, ie., to evaluate the term for a certain value of n, we need the terms with lower values of n. For both a_n and b_n, the reference term is b_{n-1} (for even n) and a_{n-1} (for odd n)
∴ We will find it convenient to tabulate the values of a_n and b_n as shown below.

				$a_n + b_n$	
				for odd n	for even n
$a_1 = p$		$b_1 = q$		$p + q$	
	$a_2 = pq$		$b_2 = q^2$		$q(p + q)$
$a_3 = pq$		$b_3 = pq^2$		$pq(p + q)$	
	$a_4 = p^2q^2$		$b_4 = pq^3$		$pq^2(p + q)$
$a_5 = p^3q^2$		$b_5 = p^2q^3$		$p^2q^2(p + q)$	

We see that for even values of n, $a_n + b_n = q(pq)^{\frac{n}{2}-1}(p + q)$.

Series	111	222	333	444
Key	1	5	4	2

Q.25 The sequences a_n and b_n are defined by different expressions for even and odd values of n. The definitions are recursive, ie., to evaluate the term for a certain value of n, we need the terms with lower values of n. For both a_n and b_n, the reference term is b_{n-1} (for even n) and a_{n-1} (for odd n)
∴ We will find it convenient to tabulate the values of a_n and b_n as shown below.

				$a_n + b_n$	
				for odd n	for even n
$a_1 = p$		$b_1 = q$		$p + q$	
	$a_2 = pq$		$b_2 = q^2$		$q(p + q)$
$a_3 = pq$		$b_3 = pq^2$		$pq(p + q)$	
	$a_4 = p^2q^2$		$b_4 = pq^3$		$pq^2(p + q)$
$a_5 = p^3q^2$		$b_5 = p^2q^3$		$p^2q^2(p + q)$	

$p = \frac{1}{3}$, $q = \frac{2}{3}$ and n is odd

$$\therefore a_n + b_n = (pq)^{\frac{n-1}{2}}(p+q) = \left(\frac{2}{9}\right)^{\frac{n-1}{2}}$$

$$\text{We see that } a_7 + b_7 = \left(\frac{2}{9}\right)^{\frac{7-1}{2}} = \frac{8}{729} > \frac{8}{800} = 0.01$$

$$\text{But } \left(\frac{2}{9}\right)^{\frac{9-1}{2}} = \frac{16}{6561} < \frac{16}{6400} = \frac{0.01}{4}$$

∴ The smallest odd value of n for which $a_n + b_n < 0.01$ is 9.

Series	111	222	333	444
Key	4	3	2	5

Section 2

Q.26 The mixture must contain 10% minerals. As there are only two ingredients (O and Q) with 10% minerals, the diet can be prepared in only one way.
As O and Q have 30% protein each, they can be mixed to form the diet. Choice (1)

Q.27 None of the choices among (1), (2) and (3) can be used to form the diet with 10% fat and at least 30% protein. For Q and S to form the diet with 10% fat and at least 30% protein, if they are mixed in the ratio $x : y$ (say)

$$\frac{x(50)+y(0)}{x+y} = 10,\ x : y = 1 : 4$$

$$\therefore \text{ Cost per unit } = \frac{1(200)+4(100)}{5} = \frac{600}{5} = 120$$

Similarly, the ratio for R and S is 1 : 3 and cost per unit is $\frac{800}{4} = 200$.

$\therefore$ The cost per unit is the least for Q and S.

Choice (4)

Q.28 The diet should have at least 60% carbohydrate. Further in the mixture formed by P, Q and S, the proportion of P should be the maximum and the other two should be minimum to get the lowest per unit cost.
Among the given options only choices (2) and (5) satisfy the condition of having 60% carbohydrate and of these choice (5) has the lower per unit cost.

Choice (5)

Q.29 O and P when mixed in equal proportions, the protein content will be only $\frac{30+20}{2} \Rightarrow 25\%$, which is less than required. R and S when mixed in equal proportion, the carbohydrate content will be only $\frac{5+45}{2} = 25\%$, which is less than required.
Similarly P and S and Q and R when mixed in equal proportion the combination will have less than the required amount of minerals and carbohydrate respectively.
Only O and S when mixed in equal proportion would yield a mixture with all the contents in the required amounts. Choice (5)

Q.30 From A, as 60% of the top academic performers were not athletes, the remaining 40% of the top academic performers were athletes. It is given that 10 athletes were among the top academic performers.
$\therefore$ 40% = 10 $\Rightarrow$ 100% = 25.
Hence A alone is sufficient.
B gives no data, it is just an assumption. Choice (1)

Q.31

From A and the given condition,
Either Bala or Dev got the highest rank.
Hence, A alone is not sufficient.
From B and the given condition, either Dev or Atul can be the highest ranker.
Hence, B alone is not sufficient.
Combining A and B, Dev must get the highest rank.

Choice (4)

Q.32

It is given that,
30% of the employees are males, which implies 70% of the employees are females. Also 10% of the female employees have an engineering background .
$\Rightarrow$ 10% (70%) $\Rightarrow$ 7% of the employees are females with engineering background.

From A,
25% of the employees have engineering background.
Hence 25 – 7 = 18% of the employees are males with engineering background.
So, A alone is sufficient.

From B,
Number of male employees having an engineering background = 120% of female employees with engineering background.
As 7% of employees are females with engineering background, 120% (7%) $\Rightarrow$ 8.4% of the employees are males from engineering background. So B alone is also sufficient.

Choice (3)

Q.33 Clearly A alone is not sufficient, as we do not know how many goals did the opponent score.

B alone is also not sufficient, as we do not know how many goals did Mahindra and Mahindra club score.

Combining A and B,

If the score at the half-time is 0 – 3, then the match would have ended in a 4 – 4 draw. So, Mahindra and Mahindra club cannot win. If the score at the half-time is 1 – 4, then at the end it is 5 – 4. So, Mahindra and Mahindra club can win. So, we cannot answer even after combing both the statements. Choice (5)

Q.34

If one observes the values given for the different parameters, the values that were varying with production i.e. value was increasing when production increased and value decreasing when production decreased are Material, Labour and Operating cost of machines.

All the remaining costs i.e., Rent of building, Consumables, Rates and taxes, Repair and maintenance expense and selling and marketing expenses are fixed. Hence there will be no change in these costs. The total fixed cost = 1200 + 400 + 800 + 5800 + 1400 = 9600.
Now the cost/unit for different variable costs is as follows.

Material = Rs.50 per unit
Labour = Rs.20 per unit
Operating cost of machines = Rs.30 per unit

Total = Rs.100 per unit
Selling price per unit = Rs.125

Total cost/unit for 1400 units is Rs.100 (i.e., variable cost) + $\frac{9600}{1400}$ = Rs.107. Choice (2)

Q.35 If one observes the values given for the different parameters, the values that were varying with production i.e. value was increasing when production increased and value decreasing when production decreased are Material, Labour and Operating cost of machines.

All the remaining costs i.e., Rent of building, Consumables, Rates and taxes, Repair and maintenance expense and selling and marketing expenses are fixed. Hence there will be no change in these costs. The total fixed cost = 1200 + 400 + 800 + 5800 + 1400 = 9600.
Now the cost/unit for different variable costs is as follows.

Material = Rs.50 per unit
Labour = Rs.20 per unit
Operating cost of machines = Rs.30 per unit

Total = Rs.100 per unit
Selling price per unit = Rs.125

For one product,

Selling price	= Rs.125
Variable cost	= Rs.100
Difference	= Rs. 25

Now to avoid loss, the company has to offset the fixed cost (i.e. 9600). For which it has to manufacture a total of $\frac{9600}{25}$ = 384 units. Choice (3)

Q.36 The reduction in selling price per unit = 5% of 125 = 6.25. New selling price = 118.75
Total fixed cost = Rs.9600
Variable cost/unit = Rs.100
Now the total profit increases with the increase in number of units sold, the maximum profit is obtained when the company sells 2000 units. Choice (5)

Q.37

The given condition is that if the company sells upto 1400 units, the selling price/unit is Rs.125 and if the company sells 1700 units, the selling price/unit for all the units is Rs.120/unit.

The profit of the company increases upto a production figure of 1400 units, from 1400^{th} unit to 1401^{th} unit the total profit decreases drastically and from 1401^{th} to 1700^{th} unit the profit again increases.

Hence, the profit can be maximum at the production figure of 1400 units or at 1700 units. Let us consider both the cases.

Production	1400 Units	1700 Units
Selling price / unit(S)	Rs.125	Rs.120
Variable cost / unit(V)	Rs.100	Rs.100
S – V	Rs.25	Rs.20
(S – V) × production	25 × 1400 = 35000	20 × 1700 = 34000
Total Fixed cost	9600	9600
Total profit	25400	24400

The maximum profit is Rs.25400 Choice (1)

Q.38 With the given information we can deduce the number of males and vegetarians in the different sections as follows

	Total	Male	Vegetarian
Class 12	80	48	32
Class 11	80	44	40
Secondary section	640	288	352
Total	800	380	424

Percentage of male students in the secondary section

$= \frac{288}{640} \times 100 = 45\%$ Choice (2)

Q.39 With the given information we can deduce the number of males and vegetarians in the different sections as follows

	Total	Male	Vegetarian
Class 12	80	48	32
Class 11	80	44	40
Secondary section	640	288	352
Total	800	380	424

Vegetarians in class 12 = 32

Male vegetarians = $\frac{25}{100} \times 32 = 8$

$\therefore$ Female vegetarians = 32 – 8 = 24.

Male non-vegetarians = 48 – 8 = 40.

Required difference = 40 – 24 = 16 Choice (5)

Q.40 With the given information we can deduce the number of males and vegetarians in the different sections as follows

	Total	Male	Vegetarian
Class 12	80	48	32
Class 11	80	44	40
Secondary section	640	288	352
Total	800	380	424

Percentage of vegetarian students in class 12

$= \frac{32}{80} \times 100 = 40$ Choice (1)

Q.41 With the given information we can deduce the number of males and vegetarians in the different sections as follows

	Total	Male	Vegetarian
Class 12	80	48	32
Class 11	80	44	40
Secondary section	640	288	352
Total	800	380	424

It is given that in secondary section, 50% of the students are vegetarian males.

$\Rightarrow$ 320 students in secondary section are vegetarian males.

This contradicts with the actual information given. Hence, the question should be ignored. (Ignored)

Q.42

The cost for angioplasty, hip replacement and knee replacement in the different countries are

(in thousand dollars)

	India	Thailand	Malaysia	Singapore	USA
Angiopasty	11 + 5	13 + 5	11 +6	13 +4	57
Hip replacement	9 + 7	12 +5	10 +8	12 +5	43
Knee replacement	8.5 + 9	10 +6	8 +4	13 + 4	40
Total	49.5	51	47	51	140

The cheapest is in Malaysia Choice (3)

Q.43 As given in the previous question, the total cost will be highest in India (8,500 + 9,000 = 17,500) Choice (1)

Q.44 Cost in India = 3000 + 5000 = 8000
Cost in Thailand = 4500 + 6000 = 10500
Difference = 2,500 $\times$ 32.89 = 82225
Cost of travel = 15,000
$\therefore$ Required difference = 67,225 $\cong$ 67500

Choice (4)

Q.45

Cost in India with dollar at 40.92 = 5500×40.92
= 2,25,000

Cost in India with dollar at 35 = $\frac{2,25,000}{35} \cong 6500$ dollars

Cost in Singapore = 9000
Required difference= 2500 Choice (2)

Q.46

Let us check the possible shorter routes from A to J

	Total Cost	Total distance
A $\frac{\text{Rs.670}}{\text{560 km}}$ B $\frac{\text{Rs.2275}}{\text{2300 km}}$ J	Rs.2945	2860 km
A $\frac{\text{Rs.1250}}{\text{850 km}}$ D $\frac{\text{Rs.2450}}{\text{1650 km}}$ J	Rs.3700	2500 km
A $\frac{\text{Rs.1700}}{\text{1345 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2850	2315 km
A $\frac{\text{Rs.2450}}{\text{1350 km}}$ G $\frac{\text{Rs.890}}{\text{830 km}}$ J	Rs.3340	2180 km
A $\frac{\text{Rs.1850}}{\text{1950 km}}$ H $\frac{\text{Rs.425}}{\text{400 km}}$ J	Rs.2275	2350 km
A $\frac{\text{Rs.1350}}{\text{790 km}}$ C $\frac{\text{Rs.430}}{\text{410 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2930	2170 km

The shortest possible route is A – C – F – J. The cost is Rs.2930 Choice (4)

Q.47 Let us check the possible shorter routes from A to J

	Total Cost	Total distance
A $\frac{\text{Rs.670}}{\text{560 km}}$ B $\frac{\text{Rs.2275}}{\text{2300 km}}$ J	Rs.2945	2860 km
A $\frac{\text{Rs.1250}}{\text{850 km}}$ D $\frac{\text{Rs.2450}}{\text{1650 km}}$ J	Rs.3700	2500 km
A $\frac{\text{Rs.1700}}{\text{1345 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2850	2315 km
A $\frac{\text{Rs.2450}}{\text{1350 km}}$ G $\frac{\text{Rs.890}}{\text{830 km}}$ J	Rs.3340	2180 km
A $\frac{\text{Rs.1850}}{\text{1950 km}}$ H $\frac{\text{Rs.425}}{\text{400 km}}$ J	Rs.2275	2350 km
A $\frac{\text{Rs.1350}}{\text{790 km}}$ C $\frac{\text{Rs.430}}{\text{410 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2930	2170 km

The route with least cost is A – B – J, with a total cost of Rs.2275. As the cost of the new flight is 5% less than Rs.2275, it should be
= 2275 – (5% of 2275)
= 2275 – 113.75
= 2161.25 Choice (2)

Q.48 Let us check the possible shorter routes from A to J

	Total Cost	Total distance
A $\frac{\text{Rs.670}}{\text{560 km}}$ B $\frac{\text{Rs.2275}}{\text{2300 km}}$ J	Rs.2945	2860 km
A $\frac{\text{Rs.1250}}{\text{850 km}}$ D $\frac{\text{Rs.2450}}{\text{1650 km}}$ J	Rs.3700	2500 km
A $\frac{\text{Rs.1700}}{\text{1345 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2850	2315 km
A $\frac{\text{Rs.2450}}{\text{1350 km}}$ G $\frac{\text{Rs.890}}{\text{830 km}}$ J	Rs.3340	2180 km
A $\frac{\text{Rs.1850}}{\text{1950 km}}$ H $\frac{\text{Rs.425}}{\text{400 km}}$ J	Rs.2275	2350 km
A $\frac{\text{Rs.1350}}{\text{790 km}}$ C $\frac{\text{Rs.430}}{\text{410 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2930	2170 km

If C, D and H are closed, then the minimum cost of travel is for A – F – J i.e. Rs.2850. Choice (3)

Q.49

Let us check the possible shorter routes from A to J

	Total Cost	Total distance
A $\frac{\text{Rs.670}}{\text{560 km}}$ B $\frac{\text{Rs.2275}}{\text{2300 km}}$ J	Rs.2945	2860 km
A $\frac{\text{Rs.1250}}{\text{850 km}}$ D $\frac{\text{Rs.2450}}{\text{1650 km}}$ J	Rs.3700	2500 km
A $\frac{\text{Rs.1700}}{\text{1345 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2850	2315 km
A $\frac{\text{Rs.2450}}{\text{1350 km}}$ G $\frac{\text{Rs.890}}{\text{830 km}}$ J	Rs.3340	2180 km
A $\frac{\text{Rs.1850}}{\text{1950 km}}$ H $\frac{\text{Rs.425}}{\text{400 km}}$ J	Rs.2275	2350 km
A $\frac{\text{Rs.1350}}{\text{790 km}}$ C $\frac{\text{Rs.430}}{\text{410 km}}$ F $\frac{\text{Rs.1150}}{\text{970 km}}$ J	Rs.2930	2170 km

We want the $\frac{\text{Price}}{\text{Distance}}$ to be as minimum as possible.

It is less than 1 in only three cases i.e. A – H, B – J, C – D. Considering the cases involving above routes:

Route	Price/Distance	Taking margin of 10% into account
A – H – J	$\frac{2275}{2350}$	$\frac{2275}{2350} \times \frac{10}{11}$
A – B – J	$\frac{2945}{2860}$	$\frac{2945}{2860} \times \frac{10}{11}$

It will be the least for A – H – J and is $\frac{2275}{2350} \times \frac{10}{11}$

$\approx \frac{207}{235} = 0.88$ Choice (2)

Q.50

The cost/kilometer is the least for A – H – J and the distance is 2350 km. Choice (4)

Section 3

Q.51

The central idea of the passage is that human society is structured on functional relationships (reciprocal roles) that coordinate human behaviour, rather than on biological relationships (which may not even be necessary). This is presented in the first paragraph, and elaborated on in the rest of the passage.

Choice 1 is inappropriate since it presents reciprocal roles as the basis, in the absence of biological links, ie. as substitutes – the passage looks at reciprocal roles as the essential basis.
Choice 2 is inappropriate since it presents biological links as the basis, in the absence of reciprocal roles – the passage does not look at the absence of reciprocal roles at all.
Choice 3 excludes both and Choice 4 includes both – these choices are therefore inappropriate.
Choice 5 focuses on the central idea. Choice (5)

Q.52 The author presents the view that reciprocal roles are defined by the expectations that each party to a relationship has of the others in the relationship (and, therefore, that society has of them).
We can infer, then, that when expectations are met (or not) we, in society, would be satisfied (or offended). We can also infer that if social links were only biological they would not be based on expectations, and there would then be no social perceptions, either of satisfaction or of offence.

Choice 1 is inappropriate since, if biological linkages were the basis for social structure, they would also be the basis for a mother's role.
Choice 2 is correct – it presents the inference explained above.
Choice 3 is inappropriate – it is contrary to the hypothetical situation presented in the question.
Choice 4 is inappropriate – it is an example of a reciprocal role.
Choice 5 is not relevant to the context.

Choice (2)

Q.53

Q.54 The line quoted in the question is from the first paragraph of the passage, in which the author indicates that 'in such a culture' the arts do not look as much at 'width' as they do 'depth', and do not create new experience but "deepen and purify' the old. The example of the differences between 2 new horizons (meaning that we are looking at different things) refers to new experiences. The example of the differences between 2 madonnas (representations of Mary) refers to different evaluations of the same experience.

Choice 1 is irrelevant – artistic licence is not discussed in the passage.
Choice 2 is appropriate – it refers to the feature explained above
Choice 3 is inappropriate – the idea conveyed in the passage is that art evaluates experience
Choice 4 is inappropriate – as explained above, the example of the madonnas help explain the author's view of 'depth' only, not 'width'.
Choice 5 is irrelevant – there is no reference to the modern day singer.

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Key	2	2	3	2

Q.55 Statement A is incorrect because the expression 'once an economy is actually in recession' is a parenthetical expression. Hence 'so' should be followed by a comma. C is erroneous because the word slump should be preceded by the article 'a'. D is incorrect because 'by a temporary stimuli' is incorrect not only because it needs the singular 'stimulus', but because you move something with' something and not 'by something'. Hence, the correction is 'with a temporary stimulus'. Statement E is incorrect because it has two errors. Firstly, it is incorrect to say 'in the longer term'. The standard phrase is 'in the long term'. Further, the usage of the word 'affect', which is a verb, is incorrect here. The correct word which should be used here is the noun 'effect'.

Choice (5)

Q.56 Statement A is incorrect because it is wrong to say 'it is sometimes told', the correction is 'it is sometimes said'. Statement C is erroneous because 'handed' should be followed by down in order to mean passed down as a legacy. Statement E is incorrect because of the word 'hence'. It should be replaced by 'but', in order to bring out the contrast implied in the sentence. Hence statements A, C and E are erroneous and B and D are grammatically correct. Choice (3)

Q.57 The line quoted in the question is from the first paragraph of the passage, in which the author indicates that 'in such a culture' the arts do not look as much at 'width' as they do 'depth', and do not create new experience but "deepen and purify' the old. The example of the differences between 2 new horizons (meaning that we are looking at different things) refers to new experiences. The example of the differences between 2 madonnas (representations of Mary) refers to different evaluations of the same experience.

Choice 1 is irrelevant – artistic licence is not discussed in the passage.
Choice 2 is appropriate – it refers to the feature explained above
Choice 3 is inappropriate – the idea conveyed in the passage is that art evaluates experience
Choice 4 is inappropriate – as explained above, the example of the madonnas help explain the author's view of 'depth' only, not 'width'.
Choice 5 is irrelevant – there is no reference to the modern day singer.

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Key	2	2	3	2

Q.58 The author uses the sea metaphorically, to refer to the vast areas of experience that practitioners of the arts (such as poets) draw on, and give us their interpretations of. In such manner these areas of experience periodically contribute by providing us (in society) with perceptions that enliven our existence. The example of the oarsman and the singer support this, as well as Rilke's conclusion at the end of the last paragraph.

Choice 1 is therefore the correct choice.
Choice 2 is inappropriate – the example serves to support the idea explained above.
Choice 3 is inappropriate – the actual idea is that artistic endeavour serves a valuable purpose.
Choice 4 is inappropriate – it is not about his understanding the elements that we have to deal, but his understanding the importance and place of artistic effort.
Choice 5 is inappropriate – the reference to the sea is in the manner of metaphor only. Choice (1)

Q.59 The central idea of the passage is the significance of artistic endeavour. The author explains how the arts help us with fresh perceptions of what we may already know. Through the example of The Renaissance he also explains how the arts can remind society of forgotten experience, with new and valuable perceptions. He concludes by confirming the significance of the artist in society and culture.

Q.60 The paragraph talks of how accounts are presented, with specific reference to accounts that organisations present about themselves, related as if by person(s). Since they are bodies and therefore cannot present content in the first person, they give themselves a persona (personify themselves) to be able to present their own account in a manner that can be well understood.

Choice 1 is inappropriate – it moves away from the discussion of an organisation to a feature of what is required for effective presentation, in general.
Choice 2 is inappropriate – the paragraph refers to an organisation that personifies itself as the actor, and not to particular actors in the account being presented.
Choice 3 is inappropriate – it says personification is required for uniformity of presentation, whereas the paragraph shows that the organisation would not have a voice otherwise.
Choice 4 is inappropriate – it moves away from the idea provided in the paragraph, that Characters (and therefore personifications) are part of deep structure.
Choice 5 is correct – it completes the paragraph in a manner that provides the reader with the entire idea, as explained above. Choice (5)

Q.61

The paragraph (clearly an extract, since it begins with 'nevertheless') talks of the value (magical allure) that photographs have always had. It then recounts the changes in technology and the way they are viewed, and the effect that these changes have had on recent generations.

Choice 1 is correct – it completes the paragraph effectively by saying that the changes we have seen do not detract from the essential value that they still have – as reminders of those we care about.
Choice 2 is inappropriate – it speaks of the value to specific persons only, and is not in keeping with the idea of value to all of us.
Choice 3 is inappropriate – while it presents a idea similar in some aspects to that in choice 1, choice 1 is better because of the connective phrase 'yet, despite these developments..'.
Choice 4 is inappropriate - it introduces a feature that developments have made possible, but does not bring the discussion to a close.

Choice 5 is irrelevant to the content and tone of the paragraph – it makes a skewed reference to the speedy passage of time. Choice (1)

Q.62 The paragraph talks of Mm Ramotswe and her detective agency – first of its physical assets, and then of the abilites that she herself has.

Choice 1 is inappropriate – the landscape, or view, can only add value to a location, not to the agency.
Choice 2 is correct – Mm Ramotswe's abilities are clearly of value to the agency (what else does a detective agency really need?) though they cannot be assets of the agency itself.
Choice 3 is inappropriate – Mm Ramotswe has intelligence in abundance, implies that she has as much as the agency needs. The statement about her intelligent secretary then serves no purpose.
Choice 4 is inappropriate – it brings in a personal attribute (good woman) that has little bearing on the discussion of her professional abilities.
Choice 5 draws attention – the paragraph does not indicate or imply that there was any 'lack' of possessions. In fact, it indicates that an agency does not really need more physical assets.

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Key	2	3	2	2

Q.63 The passage examines the different aspects that go into the makeup of a scientific tradition, and the manner in which these are sometimes related to, sometimes independent of, each other.

Choice 1 is correct – through the views expressed, the author attempts to illustrate the relationships between these different aspects.
Choice 2 is inappropriate – the discussion on how a historian would isolate a particular 'loci' is only to explain how the relationships can be discovered or understood.
Choice 3 is inappropriate – the discussion on the extent of shared beliefs presents only one of the aspects of the scientific tradition.
Choice 4 is inappropriate – the passage discusses the features that could help explain the relationships within, not the ways of understanding the tradition.
Choice 5 is inappropriate – the frustration, as opined by the author is in attempting to search for sets of rules. Choice (1)

Q.64 In paragraph 1 the author examines the isolation of 'the particular loci' with reference to 'a given specialty'. He also explains what he considers would be the paradigms of this specialty (or 'corresponding community' 'mature community') and that these can be identified without much difficulty. These paradigms are then to be compared so as to determine which of them are broadly accepted in the community.

Choice 1 and 2 are inappropriate – the reference in the passage is not to groups of scientists in one or more research laboratories, but to the shared beliefs of scientists of a common specialty.
Choice 3 is correct – it reflects the idea discussed above.
Choice 4 and 5 are inappropriate – the reference in the passage is not to global trends or evolving trends, but to the shared beliefs of scientists of a common specialty.

Choice (3)

Q.65 Choice 1 is inappropriate – it is seen from the last paragraph paradigms guide scientific research, they do not define a tradition. Definition, or establishment of firm parameters, would amount to rules.

Choice 2 is inappropriate – paragraph 2 indicates how rules may sometimes be abstracted from paradigms, to be used in research. Whether the research would benefit as a result is not indicated. Thereafter, the last paragraph indicates that the lack of rules will not prevent a paradigm from guiding research.

Choice 3 is inappropriate – the passage does not indicate that the acceptance of a tradition by renowned scientists is a prerequisite for the emergence of a paradigm. What it indicates is that scientists may sometimes accept the ideas of more renowned scientists as composites of their paradigms.

Choice 4 is inappropriate – there is no reference to or indication of different isolation mechanisms to be chosen from.

Choice 5 is correct – It is clear from the passage that paradigms are sets of commonly shared beliefs. Paragraph 2 (in the lines explaining that rules can be abstracted from paradigms) shows that paradigms represent those views from which rules may be drawn. Choice (5)

Q.66 The cricket council here is taken as plural because the sentence further goes on to describe the council as being 'at sixes and sevens over new rules i.e., the members were divided (in disagreement with each other) over the new rules. Hence it is 'were' and 'are'

Critics 'censure' or criticize 'To censor' is to remove or prohibit after inspection or examination and hence does not apply.

The first three options are B B B.

An account of something or an explanation would be 'credible' i.e., believable.

'Discrete' means distinct ', whereas 'discreet' means 'cautious' or tactful which is more appropriate is this context

Thus B B B B A is correct. Choice (3)

Q.67 'Farther' is used when we talk about distance. 'Further' means 'more' which is the meaning in which it is used in this context. Hence it has to be The further he pushed---------'

It was a 'historic' event or an event considered important and likely to remain in memory. 'Historical 'means something connected with the past and hence is incorrect to use in this context.

It was a healthy distrust meaning doubt or suspicion. 'Mistrust is when persons are not trusted, is not appropriate in the context. The use of 'healthy warrants the use of 'distrust.

Hence it is A B A

It is appropriate to say ' a true story', not a real story.

'Compliment' is a flattering remark or a comment whereas 'complement' means a companion or an addition. Thus ABABA is correct Choice (5)

Q.68 'Regretful' means to feel apologetic Here the person is 'regretful' or apologises for not accepting the invitation. Regrettable means that you consider something wrong or improper. Hence 'regretfully' is the apt choice.
'Sensuous' means appealing to the senses and is more apt whereas sensual refers to physical pleasure.
'Beside yourself with something' is an idiomatic expression and it means you are unable to control yourself because of the strength of your emotions. Hence 'beside himself' is the correct expression.
'Stationary' means something that is static which is the appropriate word to be used in this context.
Water rose above the danger mark' as 'above' here refers to the level and hence is more appropriate. Thus B B B A B is correct.

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Q.69 The answer to this question is drawn from paragraph 2 (A methodology that has proved useful…..) onwards till the first 2 sentences of paragraph 3 (…. within each of the continents.) These lines explain that areas have different resource strengths (endowments), as exemplified by the studies of the Polynesian islands. It is useful to compare the situations between continents and it would help even more to consider comparisons between the larger islands (size) which are quite isolated, examples being Japan, etc., and continents This points to the view that 'valuable insights' (clear understanding) can be gathered in this manner.

These ideas are best represented in Choice 4.

Choice 1 is inappropriate – it does not give a reason for value, only that aspects of difference may interest us.

Choice 2 is inappropriate – it mentions that historians would have more study points, but not of how this would amount to valuable insights.

Choice 3 is inappropriate – for the same reasons as choice 1

Choice 5 is inappropriate – arousing curiosity is not a reason why the islands can provide valuable insight. Choice (4)

Q.70 The difficulties in prediction are spoken of in paragraph 1 (To varying degrees each of……. become averaged out). In essence, a variety of factors – the inability to experiment, the complex and numerous variables that mean each system is unique and universal laws cannot be formulated, and the difficulty in estimating the characteristics and behaviour patterns that could develop. Hampered by these features, prediction in history can only be very broad.

Choice 1 is inappropriate – broad explanations are presented as the reasons for difficulty in prediction, rather than the other way round (as explained above).
Choice 2 is correct – it reflects the ideas discussed above.
Choice 3 is inappropriate – There is no indication that historical sciences are 'not interested" in a multitude of minor factors. As the passage goes on to explain, the difficulties in prediction mean that the historical sciences can only make broad predictions when the unique features of a multitude of small events become averaged out.
Choice 4 is incorrect – historians can make broad predictions only (not long term), as explained above. This does not imply that they are 'not interested' in anything else.
Choice 5 is incorrect – This looks at only one of the limiting factors, and not the rest (as explained above). Choice (2)

Q.71 The answer to this question is drawn from the same content used for Q.69 – the ideas in which are reflected in Choice 2. The author expresses the view that complex societies on large islands offer good opportunities for study.

Choice 1 and 3 are inappropriate as the passage does not imply that significant opportunities have been missed. On the other hand, it points to the opportunities available.

Choice 4 is incorrect – the passage talks of the difficulties that the historians face and suggests some methods that can be used. It does not indicate the 'inability' of historians.

Choice 5 is inappropriate – while paragraph 2 does explain that cultural anthropologists study long terms developments that have occurred in specific communities (referred to as 'natural experiments'), there is no idea that they have thereby 'overcome' the problem of confounding variables.

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Key	2	3	2	2

Q.72 Obviously E follows A as it carries the idea (expressed in A) forward. C follows E as 'it' in C refers to the 'academic literature' mentioned in E. Statement B cites an instance to show that the academic literature is 'inconclusive'. Hence C and B are linked. Statement D which says that regardless of any particular piece of work, it is difficult to establish connections between family changes and economic factors, ideally sums up the paragraph. Hence ECBD is the correct order of sentences which follow A. Choice (4)

Q.73 Clearly E has to follow A because it is a continuation of A as it talks about a 'third discourse'. 'These frameworks' in statement D refers to the frameworks mentioned in E. Hence E and D are linked. Statement B follows D by talking about yet another feature of contemporary reproduction and motherhood. It also expresses the idea that constructions of good mothering have not always been conceived in the manner expressed in the preceding sentences. Statement C elaborates on this idea by citing the example of 'historical work' and concludes the paragraph by saying that the changes mentioned have led to a reframing of modern discourses that pattern pregnancy and motherhood, thus leading to an acceptance of the need for expert management. Hence EDBC. Choice (1)

Q.74 Statement B ideally follows A by elaborating on the 'dramatic shifts' which have taken place in the governance of Indonesia ever since the fall of Soeharto's regime. Statement C is a continuation of B as it talks about changes, other than those mentioned in B. 'Such developments' in D refer to the 'developments' mentioned in B and C. Statement E is conclusive in nature. Hence BCDE is the correct order of sentences.

Choice (5)

Q.75 C is a better statement to follow A as it explains who the 'squatters' are and how they came to occupy the author's land. Statement B which explains how the squatter's land was different from the rest of the farm, by giving an example of the maize crop, follows statement C. E is a continuation of B as it gives a vivid description of other crops which were cultivated on the farm. Statement D which, begins with the line 'The Kikuyu also grew….', makes it obvious that D is the concluding statement, hence CBED is the correct order of sentences.

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Key	3	2	2	3