

# Mock CAT 2014 - 19

## Section I: QA & DI

1. A person has just sufficient money to buy either 30 guavas, 50 plums or 70 peaches. He spends 20% of the money on travelling, and buys 14 peaches, 'x' guavas and 'y' plums using rest of the money. If  $x, y > 0$ , what is the minimum value of the sum of x and y?

(a) 20

(b) 22

(c) 24

(d) 26

1. a Let the total money (in Rs.) with the person be  $k \times \text{LCM}(30, 50, 70)$  i.e.  $1050k$ . Therefore, the price of a guava, a plum and a peach will be  $35k$ ,  $21k$  and  $15k$  respectively.

$$14 \times 15k + x \times 35k + y \times 21k = 0.8 \times 1050k$$

$$\Rightarrow 5x + 3y = 90$$

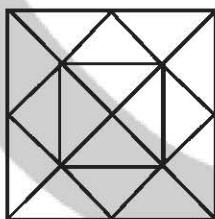
For ' $x + y$ ' to be minimum,  $x$  has to be maximum. Since 90 is a multiple of 5, in order to maximise the value of  $5x$ , the value of  $3y$  has to be the lowest multiple of 5.

$$3y = 15 \Rightarrow y = 5$$

$$\therefore x = 15$$

Hence, the minimum value of the sum is 20.

2. The square shown below has been divided into 16 non-overlapping congruent triangles. If the side of the square is 2 units, what is the sum of the perimeters (in units) of the 16 triangles?



(a)  $16(\sqrt{2} - 1)$

(b)  $16(\sqrt{2} + 1)$

(c)  $8(\sqrt{2} - 1)$

(d)  $8(2 + \sqrt{2})$

2. b Each of the sixteen triangles is an isosceles right-angled triangle with hypotenuse 1 unit. Therefore, the length of each of the other two sides will be  $\frac{1}{\sqrt{2}}$  units.

Hence, the answer =  $16 \times \left(1 + 2 \times \frac{1}{\sqrt{2}}\right) = 16(1 + \sqrt{2})$  units.

3. A sum doubles itself in one year at a certain rate of interest, compounded annually. In how many years will a sum become six times itself under the same investment scheme?

(a) 3

(b) 2.5

(c)  $\log_6 2$

(d)  $\log_2 6$

3. b If a sum doubles itself in 1 year, the rate of interest has to be 100%. Therefore, the sum will become four times in 2 years under the scheme.

Now, it can be observed that if the sum has to become six times, the required time will be more than 2 years but less than 3 years.

Let the sum be  $x$  and the time in which four times of the sum becomes six times be ' $t$ ' months.

$$\frac{4x \times 100 \times t}{100 \times 12} = 2x \Rightarrow t = 6.$$

Hence, the required time is 2 years 6 months i. e. 2.5 years.

4. In a class, students use three mobile applications – Whatsapp, Line and WeChat. The number of students who use Whatsapp, Line and WeChat is 80, 54 and 66 respectively. Twelve students use Whatsapp and WeChat, but not Line. Six students use Whatsapp and Line, but not WeChat. Twenty two students use Line and WeChat. The total number of students in the class is ten times the number of students who use all the three applications. If 16 students use none of the three applications, then find the number of students in the class.

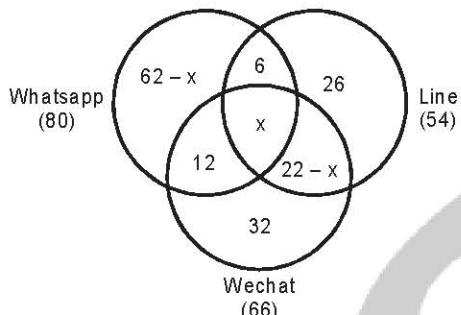
(a) 144

(b) 192

(c) 176

**(d) 160**

4. d Let the number of students who use all the three applications be  $x$ .  
Now, the given information can be depicted as shown below.



$$\therefore 62 - x + 26 + 32 + 12 + 6 + 22 - x + x + 16 = 10x$$

$$\Rightarrow x = 16$$

Hence, the number of students in the class =  $10 \times 16 = 160$ .

5.  $E = 25^{6k} - 1$ , where  $k$  is a natural number. Which of the following numbers will always divide  $E$ ?

(a) 336

(b) 504

(c) 936

**(d) All of these**

5. d  $E = 25^{6k} - 1 = (25^6)^k - (1)^k$

So  $E$  must be multiple of  $(25^6 - 1)$

$$\begin{aligned} \text{and } (25^6 - 1) &= (25^3)^2 - 1 = (25^3 + 1)(25^3 - 1) \\ &= (25 + 1)(25^2 - 25 + 1)(25 - 1)(25^2 + 25 + 1) \\ &= 26 \times 601 \times 24 \times 651 = 2^4 \times 3^2 \times 7 \times 13 \times 31 \times 601 \end{aligned}$$

Now if we check the options

$$336 = 3 \times 2^4 \times 7$$

$$504 = 2^3 \times 3^2 \times 7$$

$$936 = 2^3 \times 3^2 \times 13$$

So, we can see that all of the options are factors of  $E$ .

**Directions for questions 6 to 8:** Answer the questions on the basis of the information given below.

There are three textile mills –  $M_1$ ,  $M_2$  and  $M_3$  – in Sariska, a laidback town situated on the scenic banks of river Skirasa. The number of workers in  $M_1$  is 30 less than that in  $M_2$  but 20 more than that in  $M_3$ . In  $M_2$ , the number of unskilled male workers is equal to the number of unskilled female workers. The number of male workers in  $M_1$  is equal to the number of female workers in  $M_3$  and the number of skilled male workers in  $M_2$  is equal to the number of unskilled female workers in  $M_3$ . Also, thrice the number of skilled male workers in  $M_3$  is equal to the total number of unskilled male workers in  $M_2$ , which, in turn, is equal to the number of skilled female workers in  $M_3$ . The number of unskilled male workers in  $M_3$  is 80% of the number of skilled female workers in  $M_1$ . Twice the number of unskilled male workers in  $M_1$  is equal to the number of unskilled male workers in  $M_3$ , which, in turn, is equal to two-fifths the number of skilled female workers in  $M_2$ . It is also known that, in  $M_1$ , the number of skilled female workers is equal to the number of unskilled female workers and the total number of workers in three mills taken together is 370.

6. Which mill has the highest number of skilled male workers?  
 (a)  $M_1$                                        (b)  $M_2$                                        (c)  $M_3$    (d) Cannot be determined
7. The number of skilled female workers in  $M_3$  is what percentage of that in  $M_2$ ?  
 (a) 60%    (b) 40%    (c) 50%    (d) 70%
8. What is the absolute difference between the total number of female workers and that of the male workers in the three mills taken together?  
 (a) 10    (b) 20    (c) **30**   (d) 40

**For questions 6 to 8:** Let the number of workers in  $M_1$  be  $x$ .

$$\therefore x + x + 30 + x - 20 = 370 \text{ or } x = 120.$$

Let the number of skilled male and female workers in  $M_1$  be 'a' and 'b' respectively, and the number of skilled and unskilled male workers in  $M_2$  be 'c' and 'd' respectively.

Now, the given data can be tabulated as shown below.

Number of workers	Male		Female		Total
	Skilled	Unskilled	Skilled	Unskilled	
$M_1$	a	0.4b	b	b	120
$M_2$	c	d	2b	d	150
$M_3$	$d/3$	0.8b	d	c	100

Given that,

$$a + 0.4b = d + c$$

$$\therefore 2b = d/3 + 0.8b + 20 \text{ and } 2b + d = d/3 + 0.8b + 50$$

Solving above equations, we get,

$$d = 30, b = 25, c = 40, a = 60$$

6. a M<sub>1</sub> has the highest number of skilled male workers.

7. a The percentage =  $\frac{30}{50} \times 100 = 60\%$ .

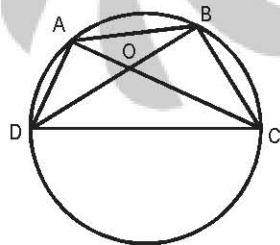
8. c The difference  

$$= (a + c + d/3 + 0.4b + d + 0.8b) - (b + 2b + d + b + d + c) = (a + 1.2b + c + 4d/3) - (4d + c + 2d)$$
  

$$= 60 + 1.2 \times 25 + 40 + 4 \times 30/3) - (4 \times 30 + 40 + 2 \times 30) = 30.$$

9. A, B, C and D are four points on the circumference of a circle such that DC is a diameter of the circle. The point of intersection O of AC and BD lies inside the circle. If  $\angle ACB = x^\circ$ ,  $\angle ABD = (x - 10)^\circ$  and  $\angle BDC = (x + 10)^\circ$ , then the measure of  $\angle DOC$  is  
 (a)  $100^\circ$     (b)  $90^\circ$    (c) **120°**   (d) Cannot be determined

9. c



Since DC is the diameter of the circle,  $\angle DBC = \angle DAC = 90^\circ$ .

$\angle BDC = \angle BAC = (x + 10)^\circ$  and  $\angle ABD = \angle ACD = (x - 10)^\circ$  (angles in the same segment)

Now,  $\angle DAB + \angle DCB = 180^\circ$  (opposite angle of cyclic quadrilateral)

$$\Rightarrow \angle DAC + \angle BAC + \angle DCA + \angle ACB = 180^\circ$$

$$\Rightarrow 90 + x + 10 + x - 10 + x = 180 \text{ or } x = 30^\circ.$$

$$\angle DOC = 180 - (x + 10) - (x - 10) = 120^\circ.$$

10. Ram has 100 coins each, of the denominations – Re.1, Rs.5, Rs.10 and Rs.20. In how many ways can he pay a bill of Rs.25?

10. d Let the number of coins of the denominations Rs. 1, Rs. 5, Rs. 10 and Rs. 20 used for paying the bill be 'a', 'b', 'c', and

All the possible solutions of the above equation are tabulated below:

a	b	c	d
25	0	0	0
0	5	0	0
20	1	0	0
15	2	0	0
10	3	0	0
5	4	0	0
15	0	1	0
5	0	2	0
5	0	0	1
0	1	2	0
0	3	1	0
0	1	0	1
10	1	1	0
5	2	1	0

Hence, the number of ways = 14.

11. A bike running at 80 km/h initially is slowed down to 60 km/h as soon as the fuel indicator touches the half level mark. It keeps running at this speed till it runs out of fuel, thereby covering a total distance of 640 km in 10 hours. If the bike consumes 2 litres of fuel per hour, what is the capacity (in litres) of the fuel tank of the bike?

(a) 16      (b) 20      (c) 40      (d) 32

$$\therefore 60x + 80(10 - x) = 640 \Rightarrow x = 8$$

12. How many pairs of natural numbers are there such that their LCM is 20 and HCF is not 4?

12. a The possible pairs of numbers that satisfy the given conditions are (20, 1), (20, 2), (20, 5), (20, 10), (20, 20), (10, 4) (5,

13. Rohit rides to his school from his home at a uniform speed. While returning, he covers two-sevenths of the total distance at two-sevenths of the speed maintained during the onward journey. Then he increases his speed by 50% and covers three-fifths of the remaining distance at this speed. He finally reduces his speed by 66.67% and maintains this speed till he reaches his home. If his average speed for the to-and-fro journey is 14km/h, find the speed (in km/h) at which Rohit rides to the school.

(a) 28

(b) 21

**(c) 35**

(d) 14

13. c Let the distance between Rohit's house and school be  $7x$  km and the speed at which he rides to his school be  $7y$  km/h.  
Total distance covered =  $14x$

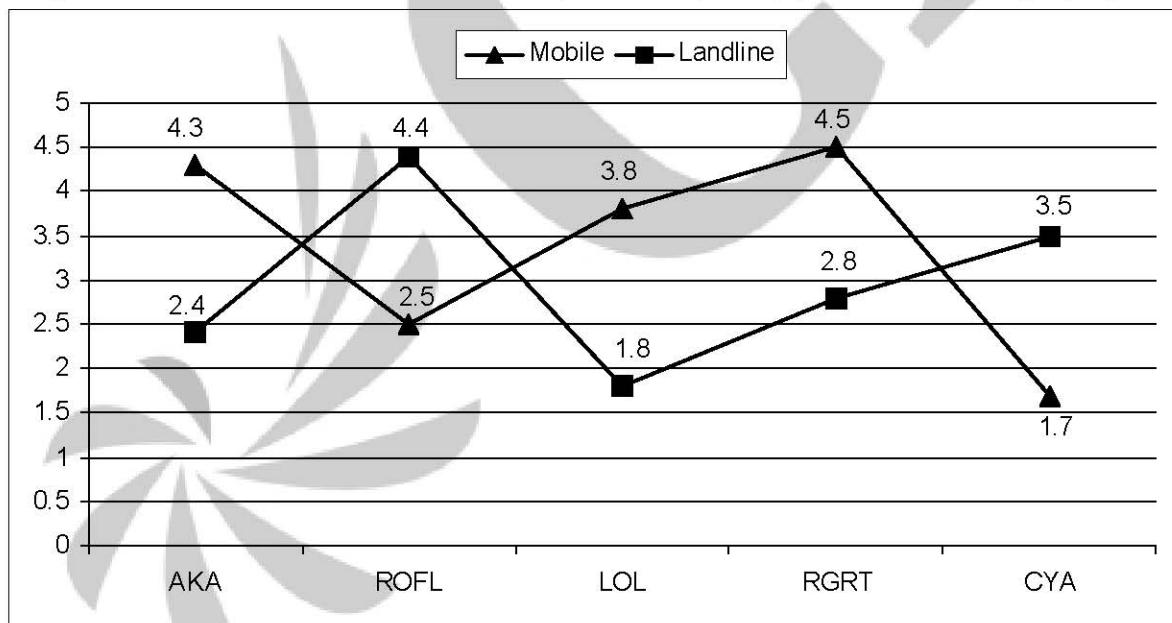
$$\text{Total time taken} = \frac{7x}{7y} + \frac{2x}{2y} + \frac{3x}{3y} + \frac{2x}{y} = \frac{5x}{y}$$

$$\therefore \text{Average speed} = \frac{14x}{5x/y} = 14 \Rightarrow y = 5$$

$$\text{Hence, the speed} = 7 \times 5 = 35 \text{ km/h.}$$

**Directions for questions 14 to 16:** Answer the questions on the basis of the information given below.

The line diagram given below shows the revenues (in million Rs.) generated by five telecom companies through Mobile and Landline services. The table gives the percentage break-up of the revenues generated through Mobile and Landline services of the five companies in corporate (C) and non-corporate (NC) segments.



Company	Mobile		Landline	
	C	NC	C	NC
AKA	70	30	80	20
ROFL	60	40	50	50
LOL	90	10	70	30
RGRT	80	20	60	40
CYA	50	50	90	10

A company 'X' is said to dominate another company 'Y', either in Mobile market or in Landline market, only if company X's sales are more than company Y's sales in each of the two segments (C and NC) individually.

14. How many of the given companies dominate ROFL in Mobile market as well as in Landline market?
- (a) 0    (b) 1    (c) 2    (d) 3
15. How many companies are definitely not dominated by any other company in Landline market?
- (a) 0    (b) 1    (c) 2    (d) 3
16. What is the absolute difference (in million Rs.) between the revenue generated by the five companies in corporate segment through Mobile services and that in non-corporate segment through Landline services?
- (a) 5.79     (b) 7    (c) 7.69    (d) None of these

**For questions 14 to 16:**

The information given in the graph and table can be tabulated as shown below.

Company	Revenue (in million Rs.)					
	Mobile			Landline		
	Total	C	NC	Total	C	NC
AKA	4.3	3.01	1.29	2.4	1.92	0.48
ROFL	2.5	1.5	1	4.4	2.2	2.2
LOL	3.8	3.42	0.38	1.8	1.26	0.54
RGRT	4.5	3.6	0.9	2.8	1.68	1.12
CYA	1.7	0.85	0.85	3.5	3.15	0.35

14. a From the table it can be observed that none of the companies dominates ROFL in both the segments.
15. c There are two companies which are definitely not dominated by any other company and these are ROFL and CYA.
16. c The required difference (in million Rs.) =  $(3.01 + 1.5 + 3.42 + 3.6 + 0.85) - (0.48 + 2.2 + 0.54 + 1.12 + 0.35) = 7.69$ .
17. A date shown in DD/MM/YYYY format has a peculiarity: DD, MM and YYYY, in that order, form a Geometric Progression. If  $2 < DD < 8$  and  $DD \neq MM \neq YYYY$ , then how many such dates are possible?
- (a) 10    (b) 9    (c) 7    (d) 14

17. a The observations made on the basis of the information given in the question can be tabulated as shown below.

Value of DD	The possible values of common ratio	Number of dates
3	2, 3 and 4	3
4	0.5, 1.5, 2, 2.5 and 3	5
5	2	1
6	2	1
7	Not possible	0

Hence, the number of dates =  $3 + 5 + 1 + 1 = 10$ .

18. Sixteen persons –  $P_1$  to  $P_{16}$  – are to be seated at a square table, which has four chairs along each side. What is the probability that  $P_7$  and  $P_{13}$  sit on two adjacent chairs on the same side?

(a)  $\frac{1}{4}$

(b)  $\frac{1}{10}$

(c)  $\frac{2}{15}$

(d)  $\frac{1}{20}$

18. b The number of ways in which 16 people can sit at the given table =  $4 \times 15!$

The number of ways in which A and B can sit adjacent to each other on the same side of the table =  $3 \times 2 = 6$

The number of ways in which 16 people can sit at the given table when A and B sit adjacent to each other on the same side =  $6 \times 14!$

Hence, the probability =  $\frac{6 \times 14!}{4 \times 15!} = \frac{1}{10}$ .

19. 'abc' is a three-digit number, where 'a', 'b' and 'c' are distinct single digit natural numbers. If 'bc' (a two-digit number) is divisible by 'a' and  $5 < a < 8$ , then how many values can 'abc' assume?

(a) 22

(b) 24

(c) 20

(d) 26

19. c The table given below enlist all the possible values of 'bc' that are feasible corresponding to the values of 'a'.

Value of 'a'	Values of 'bc'
6	12, 18, 24, 42, 48, 54, 72, 78, 84
7	14, 21, 28, 35, 42, 49, 56, 63, 84, 91, 98

Hence, the number of values that 'ab' can assume =  $9 + 11 = 20$ .

20. ABCD is a trapezium in which  $AB \parallel DC$ . AP and BQ are perpendiculars drawn on DC, and O is the point of intersection of AC and BD. If  $AB = 5$ ,  $DP = 3$  and  $QC = 4$ , find the ratio of the areas of  $\triangle AOB$  and  $\triangle ODC$ .

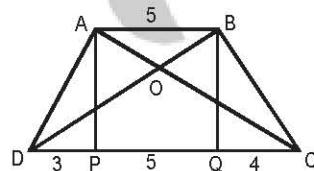
(a)  $\frac{25}{81}$

(b)  $\frac{25}{144}$

(c)  $\frac{5}{12}$

(d)  $\frac{25}{49}$

20. b In the figure given below,  $\triangle AOB \sim \triangle COD$ .



Hence, the ratio =  $\frac{\text{ar}(\triangle AOB)}{\text{ar}(\triangle COD)} = \frac{AB^2}{CD^2} = \frac{25}{144}$ .

21. The roots of the equation  $x^2 + bx - 14 = 0$  are  $x_1$  and  $x_2$ . If  $4x_1 + 3x_2 = 13$ , then which of the following may be true?

(a)  $b = \frac{-31}{12}$       (b)  $x_1 = -2$       (c)  $x_2 = 14$       (d) Either (a) or (b)

21. d We have,

$$\begin{aligned} x^2 + bx - 14 &= 0 \\ \therefore x_1 + x_2 &= -b && \dots(i) \\ \text{and } x_1 \times x_2 &= -14 && \dots(ii) \\ \text{Also, } 4x_1 + 3x_2 &= 13 && \dots(iii) \end{aligned}$$

Solving the above three equations, we get:

$$x_1 = -2, x_2 = 7, b = -5 \text{ or } x_1 = \frac{21}{4}, x_2 = -\frac{8}{3}; b = -\frac{31}{12}.$$

Hence, either (a) or (b) may be true.

22.  $(N)_{10}$  represents a number 'N' written in base 10. If  $(N)_{10} = (aaa)_3$ , where 'a' is a single digit number, then 'N' must be a multiple of

(a) 9      (b) 3a      (c) 13      (d) 26

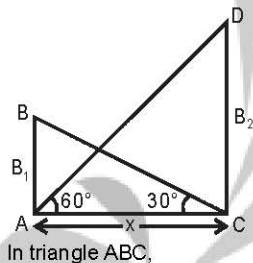
22. c  $(N)_{10} = (aaa)_3 = (a \times 3^2 + a \times 3 + a)_{10} = (13a)_{10}$   
 $\Rightarrow N = 13a$

Hence, N is always divisible by 13.

23. The angle of elevation of the top of building  $B_2$  from the foot of building  $B_1$  is  $60^\circ$  and that of  $B_1$  from the foot of  $B_2$  is  $30^\circ$ . The ratio of the height of  $B_1$  to that of  $B_2$  is

(a)  $\sqrt{3} : 1$       (b)  $\sqrt{2} : 1$       (c) 3 : 1      (d) None of these

23. d



In triangle ABC,

$$\tan 30^\circ = \frac{AB}{x} \Rightarrow AB = \frac{x}{\sqrt{3}}$$

In triangle ADC,

$$\tan 60^\circ = \frac{CD}{x} \Rightarrow CD = \sqrt{3}x$$

Hence, the ratio =  $AB : CD = \frac{x}{\sqrt{3}} : \sqrt{3}x = 1 : 3$ .

**Directions for questions 24 to 26:** Answer the questions on the basis of the information given below.

The table given below shows some data regarding the production and per head consumption of wheat and rice for six farming families in a village named Hoshiarpur in the year 2012.

Surplus = Production – Consumption

Family	Number of members	Wheat Produced (in kg)	Rice Produced (in kg)	Per head consumption of wheat (in kg)	Per head consumption of rice (in kg)
Sharma's	6	600	520	91.2	83.2
Sen's	4	440	260	100.8	60
Srivastava's	7	800	560	108.4	78.4
Sehgal's	8	600	640	74.4	75.2
Srinivasan's	5	480	500	80	96.8
Suri's	7	520	460	63.2	64

24. For how many families was the surplus of Wheat and Rice together greater than 73.5 kg?  
 (a) 1                          (b) 2                          (c) 0                          **(d) 3**
25. A relative of Sehgal's family joined it at the beginning of the year 2012 and stayed till the end of the year. If the amount of wheat consumed by the relative was 68 kg, by what amount must the family have reduced its per head consumption of wheat to meet the requirement with the produced quantity only?  
 (a) 7.10 kg                          (b) 7.43 kg                          **(c) 7.90 kg**                          (d) None of these
26. What was the total combined surplus of wheat and rice of all the families put together at the end of the year?  
 (a) 296 kg                          (b) 404.8 kg                          **(c) 411.6 kg**                          (d) None of these

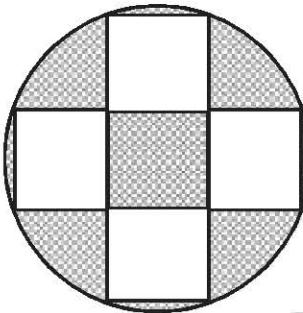
For questions 24 to 26: The given information can be tabulated as shown below.

Family	Number of members	Production (in kg)		Per head consumption (in kg)		Total consumption (in kg)		Surplus (in kg)		
		Wheat	Rice	Wheat	Rice	Wheat	Rice	Wheat	Rice	Total
Sharma's	6	600	520	91.2	83.2	547.2	499.2	52.8	20.8	73.6
Sen's	4	440	260	100.8	60	403.2	240	36.8	20	56.8
Srivastava's	7	800	560	108.4	78.4	758.8	548.8	41.2	11.2	52.4
Sehgal's	8	600	640	74.4	75.2	595.2	601.6	4.8	38.4	43.2
Srinivasan's	5	480	500	80	96.8	400	484	80	16	96
Suri's	7	520	460	63.2	64	442.4	448	77.6	12	89.6

24. d There were three families whose surplus of Wheat and Rice together was more than 73.5 and those families were Sharma's Srinivasan's and Suri's.
25. c The required reduction =  $74.4 - (600 - 68)/8 = 7.9$  kg.
26. c The required surplus =  $73.6 + 56.8 + 52.4 + 43.2 + 96 + 89.6 = 411.6$  kg.

27. In the figure given below, the unshaded region shows four identical squares. Two vertices of each of the squares lie on the circumference of the circle and the rest two are common with the vertices of two adjacent squares. What is the ratio of the area of the shaded region to that of the circle? (Take  $\pi = \frac{22}{7}$ )

$$\pi = \frac{22}{7}$$



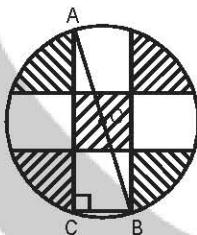
(a)  $\frac{37}{55}$

**(b)  $\frac{27}{55}$**

(c)  $\frac{13}{33}$

(d)  $\frac{23}{33}$

27. b In the figure given below, O is the centre of the circle and AB is the diameter



Let the side of the squares and the radius of the circle be 'a' and 'r' units respectively.  
 $\therefore (2r)^2 = (3a)^2 + (a)^2$

$$\Rightarrow a^2 = \frac{2}{5}r^2$$

$$\text{Hence, the ratio} = \frac{\pi r^2 - 4a^2}{\pi r^2} = \frac{\pi r^2 - \frac{8r^2}{5}}{\pi r^2} = \frac{27}{55}.$$

28. What is the number of integer values of x that satisfy the inequality  $\frac{1}{x-7} + \frac{1}{x+3} \leq 0$ , where  $x > -7$ ?

(a) 7

**(b) 8**

(c) 9

(d) 10

28. b  $\frac{1}{x-7} + \frac{1}{x+3} \leq 0$

$$\Rightarrow \frac{x-2}{(x-7)(x+3)} = \frac{(x-2)^2}{(x-7)(x+3)(x-2)} \leq 0$$

$$\Rightarrow (x-2)(x-7)(x+3) \leq 0 \Rightarrow x < -3 \text{ or } 2 \leq x < 7$$

As x is an integer greater than -7, the values that x can assume are -6, -5, -4, 2, 3, 4, 5 and 6. Hence, there are 8 values of x that satisfy the given inequality.

29. If  $f(x) = \min(3x - 1, x - 2)$ , find the maximum value of  $f(x)$ .
- (a)  $-\frac{1}{2}$       (b)  $-\frac{5}{2}$       (c) Infinity      (d) None of these
29. c We have,  
 $f(x) = \min(3x - 1, x - 2)$   
It can be observed that both the functions -  $(3x - 1)$  and  $(x - 2)$  are increasing i.e. their values increase with increase in the value of  $x$ . Hence, the maximum value of the function will be infinity.
30. The number of members in Aditya's family is  $(20 + k)\%$  more than that in Shobhit's family, where  $k$  is a real number. The number of members in Gautam's family is 25% less than that in Aditya's family. What is the minimum number of members in the three families taken together?
- (a) 10      (b) 9      (c) 15      (d) 8
30. d Let the number of members in Aditya's family be  $4x$  (a positive integer). Therefore, the number of members in Gautam's and Shobhit's families will be  $3x$  and  $4x[100/(120 + k)]$  respectively.  
In order to minimize the required value,  $x$  has to be 1.  
Since  $4 \times 1[100/(120 + k)]$  is a positive integer,  $(120 + k)$  should be a factor 400. It can be observed that the quantity  $4 \times 1 [100/(120 + k)]$  realises its minimum value (i.e. 1) at  $120 + k = 400$  or  $k = 280$ .  
Hence, the minimum number of members in the three families taken together =  $4 \times 1 + 3 \times 1 + 1 = 8$ .
31. The number of consecutive zeros at the end of  $k!$ , where  $k$  is a natural number, is 'a'. If  $4 < a \leq 6$ , then the number of values that 'k' can assume is
- (a) 0      (b) 5      (c) 10      (d) 15
31. b The number of consecutive zeros at the end of  $k!$  will be equal to the highest power of 5 contained in  $k!$ .  
Here,  $4 < a \leq 6$ , the value of  $a$  will be 5 or 6.  
Case 1: When  $a = 5$   
No value of  $k$  exists for which the number of zeros at the end of  $k!$  is 5.  
Case 2: When  $a = 6$   
There are 5 values of  $k$  for which the number of zeros at the end of  $k!$  is 6 and the values are 25, 26, 27, 28 and 29.
32. During his trip to England, Mr. Clockilal, a horologist, decided to visit 'The Cuckooland Museum' dedicated to the exhibition of cuckoo clocks. He entered the museum between 12 noon and 1 p.m. The moment he entered the museum, he observed that the angle between the minute hand and the hour hand of one of the clocks was  $20^\circ$ . While leaving the museum, he observed that the angle between the minute hand and the hour hand of the same clock was  $220^\circ$ . If he spent more than 3 hours and less than 4 hours in the museum, then how much time did he exactly spend in the museum?
- (a) 3 hours  $52\frac{8}{11}$  minutes      (b) 3 hours  $53\frac{4}{11}$  minutes  
(c) 3 hours  $38\frac{2}{11}$  minutes      (d) Either (a) or (c)

32. d Let the time at which Mr. Clockilal entered the museum be 'm' minutes past 12 noon.

$$\therefore \left| \frac{11}{2}m - 30 \times 0 \right| = 20 \Rightarrow m = 3\frac{7}{11}$$

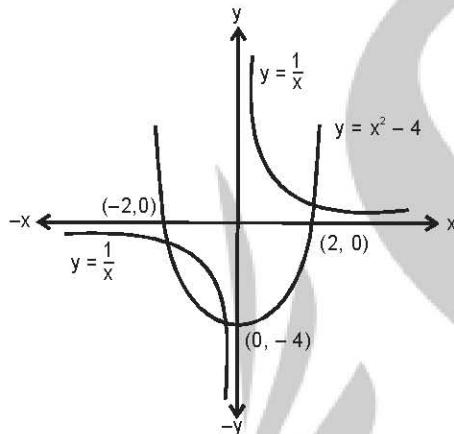
As he spent more than 3 hours and less than 4 hours in the museum, and the angle between the minute and hour hands at the time of leaving was  $220^\circ$ , he must have left the museum between  $3:3\frac{7}{11}$  p.m. and 4 p.m.  
Let the time at which he left the museum be 'n' minutes past 3 p.m.

$$\therefore \left| \frac{11}{2}n - 30 \times 3 \right| = 220 \Rightarrow n = 56\frac{4}{11} \text{ or } 41\frac{9}{11}$$

Hence, the time spent by Mr. Clockilal in the museum was either 3 hours  $52\frac{8}{11}$  minutes or 3 hours  $38\frac{2}{11}$  minutes.

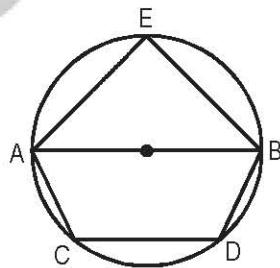


33. d The graphs of the two functions are shown below :



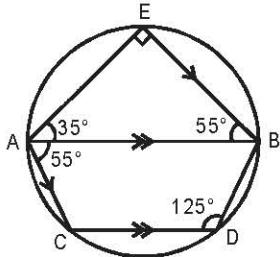
From the above figure, it is obvious that the graphs of the two functions intersect at three points.

34. In the figure given below, AB is a diameter of the circle. If  $AB \parallel CD$ ,  $AC \parallel BE$  and  $\angle BAE = 35^\circ$ , then the absolute difference between  $\angle CDB$  and  $\angle ABD$  is



- (a)  $90^\circ$       (b)  $70^\circ$       (c)  $55^\circ$       (d)  $125^\circ$

34. b



$$\angle AEB = 90^\circ \text{ (Angle in a semicircle)}$$

$$\therefore \angle ABE = 180 - (90 + 35) = 55^\circ$$

$$\therefore \angle BAC = 55^\circ \text{ (Alternate interior angles)}$$

$$\text{Now, } \angle CDB = 180 - 55 = 125^\circ \text{ (Sum of opposite angles of a cyclic quadrilateral is } 180^\circ\text{.)}$$

$$\therefore \angle ABD = 180 - 125 = 55^\circ$$

$$\text{(Sum of interior opposite angles is } 180^\circ\text{.)}$$

$$\text{Hence } \angle CDB - \angle ABD = 125 - 55 = 70^\circ.$$

35. If  $E = 3 + 8 + 15 + 24 + \dots + 195$ , then what is the sum of the prime factors of E?

(a) 29

**(b) 31**

(c) 33

(d) 23

$$35. b \quad E = 3 + 8 + 15 + 24 + \dots + 195 = 1 \times 3 + 2 \times 4 + 3 \times 5 + 4 \times 6 + \dots + 13 \times 15$$

$$\therefore T_n = n(n+2) \text{ and } n = 13$$

$$\therefore E = \sum_{n=1}^{13} T_n = \sum_{n=1}^{13} n(n+2)$$

$$= \frac{n(n+1)(2n+1)}{6} + 2 \times \frac{n(n+1)}{2}$$

$$= \frac{13 \times 14 \times 27}{6} + 2 \times \frac{13 \times 14}{2} = 1001 = 7 \times 11 \times 13$$

$$\text{Hence, the sum of the prime factors of } E \\ = 7 + 11 + 13 = 31.$$

36. A man adds some quantity of water to 1 litre pure milk, and sells the resulting mixture at the cost price of milk, thereby making a profit of  $11\frac{1}{9}\%$ . If water comes free of cost, then the ratio of water to milk in the mixture is

(a) 1 : 9

(b) 7 : 6

(c) 2 : 7

(d) None of these

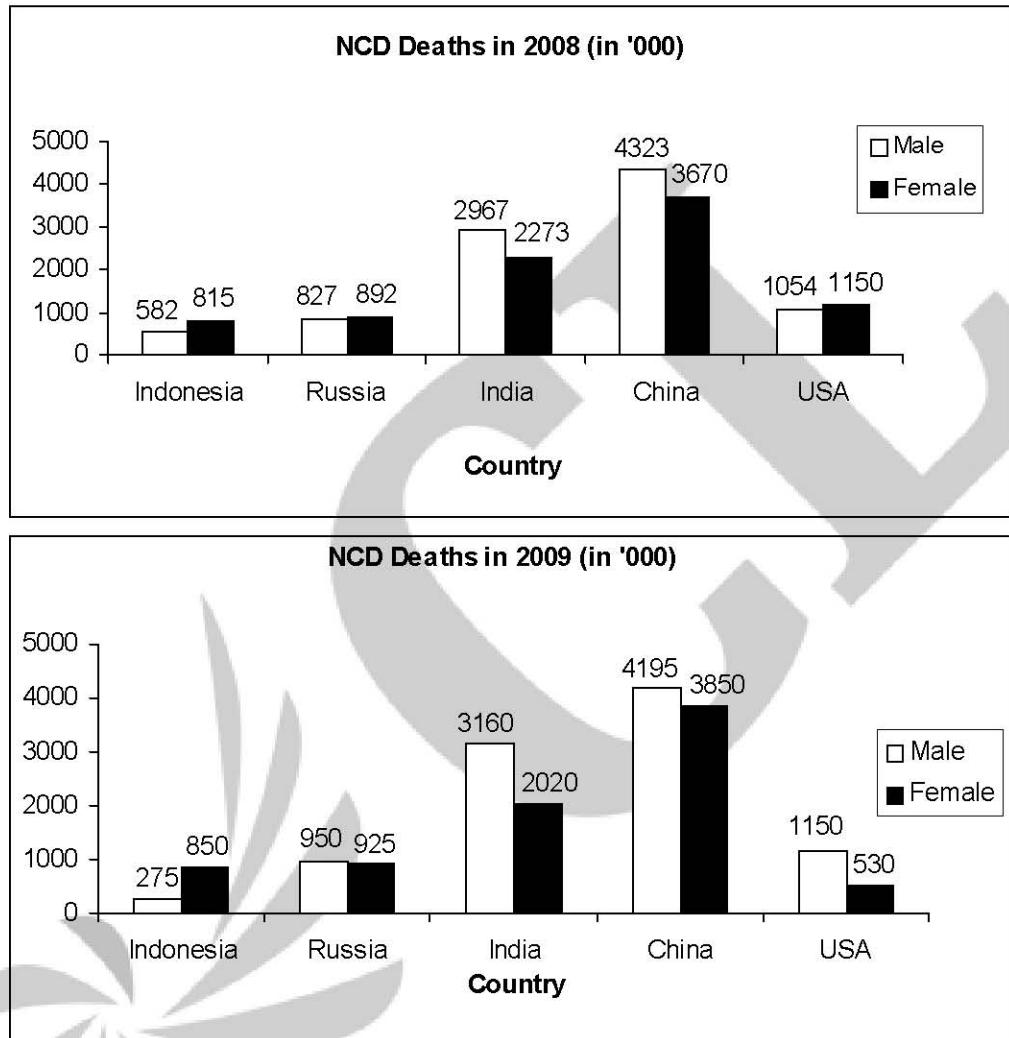
36. a Let the cost price of milk be Rs. x per litre and the ratio of water to milk in the mixture be k : 1.

The profit made by the shopkeeper on selling the mixture at the cost price of milk is  $11\frac{1}{9}\%$ .

$$\therefore x \times (1 + \frac{1}{9}) = (k + 1)x \Rightarrow k = 1 : 9.$$

**Directions for questions 37 to 39:** Answer the questions on the basis of the information given below.

The bar graphs given below show the gender-wise deaths (in '000) due to NCDs (Non Communicable Diseases) in five countries for the years 2008 and 2009.



37. In how many countries was the number of deaths due to NCDs in 2009 less than that in 2008?
- 1
  - 2
  - 3**
  - 4
38. By what percent was the total number of female deaths due to NCDs in the five countries put together in 2009 more/less than that in 2008?
- 7.10**
  - 6.40
  - 8.60
  - 7.90
39. What was the absolute difference between the total number of male deaths due to NCDs in the five countries put together in 2008 and 2009?
- 22500
  - 23000**
  - 24000
  - None of these

For questions 37 to 39: The given data can be tabulated as shown below.

Counties	NCD deaths in 2008			NCD deaths in 2009		
	Male	Female	Total	Male	Female	Total
Indonesia	582	815	1397	275	850	1125
Russia	827	892	1719	950	925	1875
India	2967	2273	5240	3160	2020	5180
China	4323	3670	7993	4195	3850	8045
USA	1054	1150	2204	1150	530	1680
<b>Total</b>	<b>9753</b>	<b>8800</b>	<b>18553</b>	<b>9730</b>	<b>8175</b>	<b>17905</b>

37. c In three countries, viz. Indonesia, India and USA, the number of deaths due to NCDs in 2009 was less than that in 2008.

38. a Required percentage =  $\frac{8800 - 8175}{8800} \times 100 = 7.10.$

39. b Required difference =  $(9753 - 9730) \times 1000 = 23000.$

40. In a triangle ABC, right angled at B, a median BE and an angle bisector BD are drawn. The lengths of DE, AD and EC, in the same order, are in Arithmetic Progression. If the length of AC is 10 cm and  $AB < BC$ , then what is the length (in cm) of BC?

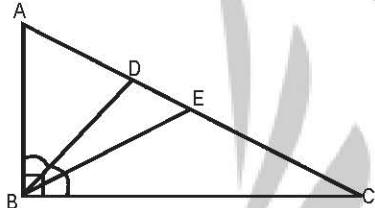
(a) 6

(b) 4

(c)  $2\sqrt{5}$

(d)  $4\sqrt{5}$

40. d



As  $AB < BC$ , the point D on AC has to be nearer to A than C. So it can be concluded that  $DE < AD < EC$ . Let the length of AD be 'a' cm.

$DE = AE - AD = 5 - a$  ( $\therefore AE = 5$ )

DE, AD and EC are in AP.

$$\therefore a - (5 - a) = 5 - a \Rightarrow a = \frac{10}{3}$$

As BD is the angle bisector,

$$\frac{AD}{DC} = \frac{AB}{BC} \Rightarrow \frac{\frac{10}{3}}{5 + \frac{5}{3}} = \frac{AB}{BC} \Rightarrow BC = 2AB.$$

In  $\triangle ABC$ ,

$$AB^2 + BC^2 = 10^2 \Rightarrow AB^2 + 4AB^2 = 100$$

$$\Rightarrow AB = 2\sqrt{5} \text{ cm}$$

$$\text{Hence, } BC = 4\sqrt{5} \text{ cm.}$$

41. Let  $S = \{1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12\}$ . The number of subsets of  $S$  comprising composite number(s) only and that of those comprising prime number(s) only are  $N_1$  and  $N_2$  respectively. What is the absolute difference between  $N_1$  and  $N_2$ ?
- (a) 0      (b) 32      (c) 48      (d) 24
41. c The given set  $S$  has 6 composite and 4 prime numbers.  
The number of subsets of  $S$  comprising composite numbers only =  $2^6 - 1$   
The number of subsets of  $S$  comprising prime numbers only =  $2^4 - 1$   
Hence, the required difference =  $(2^6 - 1) - (2^4 - 1) = 48$ .
42. A shopkeeper sells shirts at a discount of 25%. Additionally, if a customer purchases 3 shirts at a time, he gives a pair of socks, which costs him Rs. 150, free apart from the discount. One day, only three customers visit his shop — one of them buys 3 shirts and the other two buy one shirt each. The profit earned by the shopkeeper on that day is 20%. If each shirt costs Rs. 500 to the shopkeeper, then what is the mark-up percentage?
- (a) 60%      (b) 69.6%      (c) 68%      (d) 72.6%
42. b The total cost of five shirts and a pair of socks to the shopkeeper =  $5 \times 500 + 150 = \text{Rs. } 2650$ .  
Let the marked price of each shirt be Rs.  $x$ .  
. The total selling price of 5 shirts after the discount of 25% on each =  $(5x) \times 0.75$   
The shopkeeper makes a profit of 20% on the whole transaction.  
.  $0.75 \times (5x) = 1.2 \times 2650 \Rightarrow x = 848$   
Hence, the mark-up percentage  
$$= \frac{848 - 500}{500} \times 100 = 69.60.$$
43. 'ab' is a two-digit prime number such that one of its digits is 3. If the absolute difference between the digits of the number is not a factor of 2, then how many values can 'ab' assume?
- (a) 5      (b) 3      (c) 6      (d) 8
43. b Since 'ab' is a two-digit prime number and one of its digit is 3, it can assume any of the values among 13, 23, 31, 37, 43, 53, 73 and 83.  
As the absolute difference between the digits of the number is not a factor of 2, the number among the obtained numbers that satisfy the aforementioned condition are 37, 73 and 83. Hence, the number of values that 'ab' can assume is 3.
44. Let  $f(x) = ax^2 + bx + c$ , where  $a, b$  and  $c$  are real numbers and  $a \neq 0$ . If  $f(x)$  attains its maximum value at  $x = 2$ , then what is the sum of the roots of  $f(x) = 0$ ?
- (a) 4      (b) -2      (c) 8      (d) -4
44. a The sum of the roots of  $ax^2 + bx + c = 0$  is  $\frac{-b}{a}$ .  
$$ax^2 + bx + c \text{ attains its maximum value at } x = \frac{-b}{2a}.$$
  
.  $\frac{-b}{2a} = 2 \Rightarrow \frac{-b}{a} = 4$   
Hence, the sum of the roots = 4.
45. How many triangles can be drawn by joining any three vertices of a pentagon?
- (a) 8      (b) 9      (c) 11      (d) 10

45. d ∵ No three points corresponding to the five vertices of a pentagon are collinear, by joining any of the three vertices of a pentagon, we get a triangle.

Hence, the number of triangles that can be drawn =  ${}^5C_3 = 10$ .

46. A spherical ball of the maximum possible volume is placed inside a right-circular cone of height 'h' units. If the radius of the base of the cone is equal to  $h/\sqrt{3}$  units, then the ratio of the volume of the sphere to that of the cone is

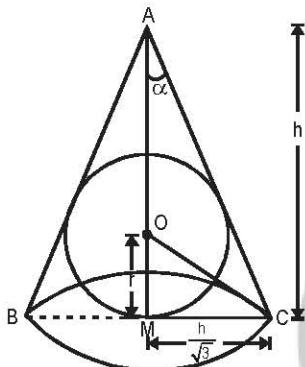
(a) 4 : 9

(b) 5 : 9

(c) 1 :  $\sqrt{3}$

(d) 2 :  $3\sqrt{3}$

46. a



Let the semi vertical angle of the cone be  $\alpha$ .

$$\tan \alpha = \frac{h/\sqrt{3}}{h} \Rightarrow \tan \alpha = \frac{1}{\sqrt{3}} \Rightarrow \alpha = 30^\circ$$

The vertical angle of the cone =  $60^\circ$

Therefore, the triangle ABC is an equilateral triangle.

The given case i.e. placing of a sphere of the maximum volume inside a cone will be identical to the case of inscribing a circle inside a triangle. Therefore, the center (O) of the circle will coincide with the centroid of the triangle ABC.

In triangle ACM, OC is angle bisector of  $\angle ACM$ .

$$\therefore \angle OCM = 30^\circ$$

In  $\triangle OCM$ ,

$$\tan 30^\circ = \frac{r}{h/\sqrt{3}} \Rightarrow r = \frac{h}{3}$$

Hence, the ratio of the volume of the sphere to that of the cone =  $\frac{\frac{4}{3}\pi\left(\frac{h}{3}\right)^3}{\frac{1}{3}\pi\left(\frac{h}{\sqrt{3}}\right)^2 \times h} = 4 : 9$ .

47. E is a point on the side AB of a rectangle ABCD, the adjacent sides of which are in the ratio 2 : 1. If  $\angle AED = \angle DEC$ , then what is the measure of  $\angle AED$ ?

(a)  $15^\circ$

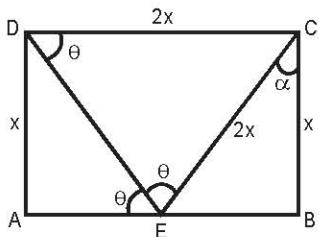
(b)  $45^\circ$

(c)  $75^\circ$

(d) Either (a) or (c)

47. c Let the two sides of the rectangle be  $x$  and  $2x$  and  $\angle AED$  be  $\theta$ .

$$\therefore \angle DEC = \theta$$



$$\therefore \angle CEB = 180 - 2\theta$$

Also,  $\angle EDC = \angle AED = \theta$  (AB is parallel to CD.)

In  $\triangle DEC$ ,

$$\angle DEC = \angle EDC \Rightarrow CD = EC = 2x$$

In  $\triangle BCE$ ,

$$\cos \alpha = \frac{x}{2x} \Rightarrow \alpha = 60^\circ$$

Now, in  $\triangle BCE$

$2\theta = 90^\circ + 60^\circ$  (Exterior angle is equal to the sum of opposite interior angles.)

$$\Rightarrow \theta = 75^\circ.$$

**Directions for questions 48 to 50:** Answer the questions on the basis of the information given below.

The table given below shows the data related to a few key financial indicators for fourteen European countries in the FY 2011-12.

Country	Inflation (%)	Long-term interest rate (% p.a.)	Debt to GDP ratio (in %)	Fiscal-deficit (as a % of GDP)
Austria	2.2	3.4	70.2	4.8
Belgium	3.4	3.9	100.8	4.8
Cyprus	2.2	4.6	61.1	5.7
Denmark	2.2	3	46.6	4.6
Estonia	2.4	5.7	7.7	1.7
Finland	1.1	3.1	45.4	3.4
France	1.5	3.3	83.5	8
Germany	1.9	2.9	74.8	4.5
Italy	1.4	4.6	118	5.1
Latvia	1.2	7.5	48	8.6
Malta	1.7	4.4	72	3.8
Netherlands	1.1	3.1	64.6	5.6
Poland	2.4	5.9	53.9	7.3
Portugal	1.1	6.5	83.2	7.3

48. If the Fiscal-deficit of France was  $x$  Euros, which was 50% more than that of Belgium in FY 2011-12?  
 (a)  $13x$                               (b)  $7x$                               (c) **14x**                              (d)  $6.5x$

48. c Let the GDP of Belgium be  $y$  Euros.

$$\therefore y \times \frac{4.8}{100} \times 1.5 = x \Rightarrow y = \frac{100}{7.2} x$$

$$\text{Hence, the debt (in Euros) of Belgium} = \frac{100.8}{100} \times \frac{100}{7.2} x = 14x.$$

49. The countries with the Long-term interest rate less than 4% per annum, Debt to GDP ratio less than 60% and Fiscal-deficit not more than 4.6% were given a AAA rating. The number of countries rated AAA among the fourteen in FY 2011-12 was

- (a) 0                                      (b) 1                                      (c) **2**                                      (d) None of these

49. c Two countries, viz. Denmark and Finland, were rated AAA.

50. If the GDP (in Euros) of Finland was 50% more than that of Italy, then by what percent was the Fiscal-deficit (in Euros) of Italy more/less than that of Finland in FY 2011-12?

- (a) **0**                                      (b) 1.5                                      (c) 0.5                                      (d) Cannot be determined

50. a Let the GDP (in Euros) of Italy be  $x$ .

Therefore, the GDP (in Euros) of Finland =  $1.5x$ .

The fiscal-deficit of:

Italy =  $0.051x$

Finland =  $0.034 \times 1.5x = 0.051x$ .

Hence, the required percentage = 0.

## Section II: VA & LR

**Directions for questions 51 to 54:** The passage given below is followed by a set of four questions. Choose the most appropriate answer to each question.

Narcissism is said to be the ‘Hysteria’ of the 20<sup>th</sup> century. Among other related social illnesses, more and more people claim disturbance of self-esteem and a feeling of great emptiness. The “modern” narcissism however, seems not to be originated in the early childhood as once described by Freud, but to be enforced and constructed by society. Economic and technological changes, as well as changes in social values are all contributing factors to increased narcissism in post modernity.

“Mirror mirror on the wall, who is the fairest of them all?”

The queen, in the fairy tale Snow White, values her “self” according to the mirror’s opinion. Not being the “fairest” is unacceptable, and she is willing to kill to change that. The mirror is, of course, a metaphor for the reflection of the self in other people, which is used by the narcissist to value his own “self”. The narcissistic individual is disinterested in others and only acting for his personal advantage. Alice Miller describes the narcissist as constantly striving for grandiosity, which then is reflected in the admiration of others and so confirms superiority and raises the individual’s self-esteem. Through admiration and approval, the uncertain self-worthiness is bolstered. If the individual does not experience admiration, it is likely to suffer from depression and a feeling of severe emptiness emerging from this low self-esteem. However, narcissism is not about self-love but self-hatred. The narcissistic individual has an empty self with no identity of its own. Thus, the reflection of the self in other people is a search for self-identity and a way of filling the inner emptiness.

Admiration and approval that support self-esteem are often achieved through the external image of the self. Society today is dominated by appearance. The invention of mass media has created new powerful sources for ideals and values and has become the single most powerful cultural influence on young people in western societies. Some of the strongest ideals are the body image, the sexual image and the status image related to economic success.

Postmodern society is bringing out narcissistic characteristics, enforcing existing “healthy” narcissism. Today’s mostly prevailing narcissism is not a psychological disturbance of early childhood, but an on-going socially constructed characteristic shared by members of most western societies. The empty “self” seems to be a mass symptom of the western society and is medicated with consumption and objective status symbols to fill the inner emptiness. Self-identity has perhaps always been related to appearance and achievement in the reflection of others, but post-modernity and modern mass media have greatly increased the burden of the worldly mirror, and by doing so it has taken narcissism to a completely new level.

51. Which of the following statement is/are true, as per the passage, about narcissism?
- Narcissism develops as a symptom of low self-esteem and need for identity.
  - Narcissism is not a psychological disturbance of childhood, as was believed earlier.
  - The emergence of postmodern society has led to a shift in the age group at which symptoms of narcissism are first observed in an individual.
- (a) 1 and 3      (b) 1 and 2      (c) 2 and 3      (d) Only 1
51. d The entire passage talks about narcissist as an individual who has an empty self and no identity of its own. He looks for admiration and approval from others in order to confirm superiority and raise his self-esteem. Thus, statement 1 follows. Statement 2 is an incorrect inference. The author states that “modern” narcissism is not originated in early childhood but is enforced and constructed by the society. This doesn’t mean to say that narcissism in general can no longer be linked

to psychological disturbance of childhood but only means that narcissism, in its present form, is caused due to the social values and changes in society. It is also possible that in earlier times narcissism was a childhood psychological disturbance but due to change in society and values, the illness has newer causes. Statement 3 finds no basis in the passage. There is nothing in the passage that suggests that there is a shift in the age group at which symptoms of narcissism are first observed in an individual. Hence, option (d), only 1 is the correct answer.

52. Which of the following statements can be inferred from the given passage?
- (a) A narcissist seeks approval from the very people over whom he needs to establish superiority.
  - (b) A narcissist will be satisfied with an image of self that is unprepossessing if that image is approved by others.
  - (c) Society promotes narcissism and compels an otherwise normal person to turn narcissistic.
  - (d) Admiration from others is the fuel that feeds the narcissist's self-esteem.**
52. d The author states at several places that admiration and approval enable a narcissist, who has no image of self, to raise his self-esteem. Thus, option (d) can be inferred from the passage and is correct. Option (a) is incorrect; the passage only states that a narcissist looks for admiration and approval from people in order to confirm his superiority over others in general. It cannot be inferred from here that he seeks approval from the very people (as in a specific set of people) over whom he needs to establish superiority. Option (b) cannot be inferred from the passage as just being approved is not sufficient, the image projected by a narcissist must also be admired. For it is grandiosity that is reflected in the admiration of others, the narcissist cannot be satisfied with an unprepossessing image. Option (c) is incorrect as the society doesn't actually promote narcissism but creates conditions that are conducive for narcissistic behavior to develop. Moreover, it cannot be inferred from the passage that an "otherwise normal person" can turn "narcissistic".
53. Why does the author refer to the queen in the tale of Snow White?
- (a) To introduce narcissism
  - (b) To elucidate narcissism**
  - (c) To provide an analogy for his idea
  - (d) To refute a previous association of an idea
53. b The question asks for the purpose of using a particular instance/object in the text. The author has mentioned the example of queen in the tale of Snow White in order to explain what narcissism is. Thus, option (b) is the correct answer. Option (a) is incorrect as the author has already introduced narcissism before he talks about the queen. Option (c) is incorrect as the author doesn't mention the queen as an analogy for his idea but as an example of a narcissistic individual. Analogy refers to a comparison of objects of different classes; like car with a person or an experience with an object. The mention of the queen in the passage doesn't qualify as an analogy. This option could have been eliminated even if the author had used an analogy as the question asks for 'why' and not 'what'. Option (d) is incorrect as the author uses the example of the queen to substantiate his idea and not refute it.
54. The author of the passage is most likely to agree with which of the following statements?
- (a) In the absence of external approval, the narcissist's self-love changes to self-hatred.
  - (b) The need for self-image can be so great so as to make the person destructive.
  - (c) It is possible to be so involved in oneself that one forgets morality.
  - (d) Values of the postmodern society seem to have contributed to the increasing narcissism.**
54. d The passage states that narcissism is not self-love but self-hatred. That is, it stems from dissatisfaction (hatred) from one's existing self-image. Thus, it is not that in absence of approval or admiration, the narcissist's self-love changes to self-hatred, but it is always dis-satisfaction with oneself. Option (b) is incorrect as the need is for approval of the image of self and not of the self -image. The passage only tells us that a narcissist can go to extreme lengths in order to gain admiration (like queen willing to kill). The need for admiration is a characteristic and there is nothing to suggest that this need is growing and reaches a point where a person turns destructive. Option (c) is incorrect for the word 'morality' as it finds no evidence in the passage to support it. Option (d) can be directly inferred from the first paragraph where the author has stated that a change in the social values of the post modern society has contributed to increasing narcissism in the society. Thus, option (d) is the correct answer.

**Directions for questions 55 to 58:** The passage given below is followed by a set of four questions. Choose the most appropriate answer to each question.

There is no better way to understand what political philosophy is and why we need it than by looking at Lorenzetti's magnificent mural. We can define political philosophy as an investigation into the nature, causes, and effects of good and bad governments, and our picture not only encapsulates this quest, but expresses in striking visual form the three ideas that stand at the very heart of the subject.

The first is that good and bad governments profoundly affect the quality of human lives. Lorenzetti shows us how the rule of justice and the other virtues allows ordinary people to work, trade, hunt, dance, and generally do all those things that enrich human existence, while on the other side of the picture, tyranny breeds poverty and death. So that is the first idea: it really makes a difference to our lives whether we are governed well or badly. We cannot turn our back on politics, retreat into private life, and imagine that the way we are governed will not have profound effects on our personal happiness.

The second idea is that the form our government takes is not predetermined: we have a choice to make. Why, after all, was the mural painted in the first place? It was painted in the Sala dei Nove – the Room of the Nine – and these Nine were the rotating council of nine wealthy merchants who ruled the city in the first half of the 14th century. So it served not only to remind these men of their responsibilities to the people of Siena, but also as a celebration of the republican form of government that had been established there, at a time of considerable political turmoil in many of the Italian cities. The portrayal of evil government was not just an academic exercise: it was a reminder of what might happen if the rulers of the city failed in their duty to the people, or if the people failed in their duty to keep a watchful eye on their representatives.

The third idea is that we can know what distinguishes good government from bad: we can trace the effects of different forms of government, and we can learn what qualities go to make up the best form of government. In other words, there is such a thing as political knowledge. Lorenzetti's frescos bear all the marks of this idea. As we have seen, the virtuous ruler is shown surrounded by figures representing the qualities that, according to the political philosophy of the age, characterized good government. The frescos are meant to be instructive: they are meant to teach both rulers and citizens how to achieve the kind of life that they wanted. And this presupposes, as Lorenzetti surely believed, that we can know how this is to be done.

55. Why does the author mention 'Lorenzetti's magnificent mural' in the passage?
- To show how integral it is to the understanding of political philosophy
  - To eulogize its importance in conceiving, establishing and maintaining a good government
  - To show how the three ideas that form the core of political philosophy derive heavily from the mural
  - To explain the three ideas that form the core of political philosophy through the illustrations in the mural**
55. d The mural , according to the author, best explains the concept and need of political philosophy. The mural is only a medium of understanding this philosophy but is not essential to this understanding. Hence options (a) and (b) can be eliminated. The three ideas that form the core of political philosophy are depicted in the mural but have not been derived from it. Hence, option (c) is incorrect. Refer to the lines, 'and our picture not only encapsulates this quest, but expresses in striking visual form three ideas that stand at the very heart of the subject.' The author aims to describe the three ideas associated with political philosophy. Hence, option (d) is correct.
56. Which of the following is not true, as per the passage?
- The form of a government determines the quality of life that people lead.
  - People have the ability to know and learn the ingredients that make up a good government.

(c) Since the form of a government is not pre-determined, it is possible for us to have the kind of government we want.

**(d) The ways to acquire the qualities that make up a good government are depicted in the mural.**

56. d Refer to the lines, "The first is that good and bad government profoundly affects the quality of human lives." The author states that our lives and happiness cannot be disconnected from the kind of government we have. Governance, good or bad, will have an effect on our lives. This makes option (a) true. Refer to the lines, "the form our government takes is not.....we have a choice to make." The author states that the form of government a state takes is not pre-determined and people of that state can make a choice regarding that. This makes option (c) true. Refer to the last paragraph where the author states "The frescos are meant to be instructive: they are meant to teach both rulers and citizens how to achieve the kind of life that they wanted. And this presupposes, as Lorenzetti surely believed, that we can know how this is to be done." Hence, option (b) is true. Option (d) is not present in the passage. The mural only depicts the qualities necessary to make a good government but it is presupposed that the ways to acquire these qualities are known to us. Hence, the ways to acquire these qualities are not depicted in the mural.

57. Which of the following cannot be inferred from the passage?

1. The life of a citizen, regardless of his political indifference, gets affected by the political climate.
2. Political philosophy needs to be an integral part of a person's education for it helps him lead the life he wants.
3. Every individual has the knowledge required to achieve the form of government that he aspires for.
4. No better way than Lorenzetti's magnificent mural can be conceived to understand what political philosophy is.

(a) 2 and 3

(b) 2 and 4

(c) 1, 3 and 4

**(d) 2, 3 and 4**

57. d Refer to the lines, "imagine that the way we are ..... profound effects on our personal happiness." Hence statement 1 is correct. The author states that we cannot ignore the importance of political philosophy and hence it should be a part of our lives. He does not say that political philosophy should be taught as part of one's education. Hence, statement 2 is incorrect. Refer to the lines, "this presupposes, as Lorenzetti surely believed, that we can know how this is to be done." An individual does not have but can acquire the knowledge required. This makes statement 3 incorrect. The author tells us that the mural is best way to explain (refer to – "...no better way to understand what political philosophy is...") political philosophy. But the author does not state that a better way cannot be conceived. Hence, statement 4 is also incorrect. Hence, option (d) is the correct answer.

58. Which of the following can be inferred from the passage?

- (a) People can underrate the fact that the way they are governed has a profound effect on their personal happiness.**
- (b) The highpoint of Lorenzetti's magnificent mural is its unique ability to elucidate an abstruse concept like political philosophy in a striking visual form.
- (c) Lorenzetti's mural was the guiding light for the Nine who ruled the city in the first half of the 14<sup>th</sup> century and ensured good governance for the masses.
- (d) The Italian cities did not have access to the mural and thus could not extricate themselves from the political turmoil that engulfed them.

58. a The passage states that the mural tells us of the need for political philosophy. The author also talks about how the mural depicts what will happen in the absence of good governance. According to the author, one value of the mural is that it reminds us that we cannot be indifferent to the kind of government we have. Refer to the lines- "it was a reminder of what might happen if the rulers of the city failed in their duty to the people, or if the people failed in their duty to keep a watchful eye on their representatives." This reminder presupposes that it is possible for people to forget/not pay attention to the kind of government. According to the passage, this can happen because people feel that the governance does not affect their lives. Refer to the lines – "We cannot turn our back on politics, retreat into private life, and imagine that the way we are governed will not have profound effects on our personal happiness." Hence option (a) is correct.

**Directions for questions 59 to 61:** Answer the questions on the basis of the information given below.

Five persons—Aman, Ishan, Jayant, Leela and Shradha—boarded five different trains—Rajdhani, Duronto, Double-decker, Shatabdi and Garib Rath—from five different stations—Delhi, Bengaluru, Mumbai, Chennai and Lucknow—for five different destinations—Kolkata, Pune, Hyderabad, Patna and Dehradun, not necessarily in this order. It is also known that:

- (i) The destination of the person who boarded Rajdhani was Kolkata.
- (ii) Aman boarded Double-decker and his destination was Pune.
- (iii) Ishan boarded his train at Chennai and got down at Hyderabad.
- (iv) The destination of the person who boarded Duronto was Patna.
- (v) Leela and Shradha boarded their trains at Lucknow and Bengaluru respectively.
- (vi) Leela neither boarded Shatabdi nor was her destination Kolkata.
- (vii) The person who boarded his/her train at Bengaluru did not board Rajdhani.

59. Which of the following statements is definitely false?

- (a) Shradha boarded Duronto and her destination was Patna.
- (b) Aman boarded his train at Mumbai and his destination was Pune.
- (c) Jayant boarded Garib Rath and his destination was Dehradun.**
- (d) Ishan boarded Shatabdi.

60. The train boarded by Jayant was

- (a) Duronto
- (b) Garib Rath
- (c) Rajdhani**
- (d) Shatabdi

61. The destination of Shradha was

- (a) Patna
- (b) Dehradun
- (c) Kolkata
- (d) Either (a) or (b)**

**For questions 59 to 61:**

Preliminary table on the basis of the given information can be drawn as shown below.

Person	Train	Boarding Station	Destination
Aman	Double Decker		Pune
Ishan		Chennai	Hyderabad
Jayant			
Leela		Lucknow	
Shradha		Bengaluru	

From statements (i), (v), (vi) and (vii), it can be deduced that Jayant boarded Rajdhani. Further analysis leads to the following table:

Person	Train	Boarding Station	Destination
Aman	Double Decker	Mumbai/Delhi	Pune
Ishan	Garib Rath/ Shatabdi	Chennai	Hyderabad
Jayant	Rajdhani	Mumbai/Delhi	Kolkata
Leela	Duronto/Garib Rath	Lucknow	Patna/ Dehradun
Shradha	Duronto/Garib Rath/Shatabdi	Bengaluru	Patna/ Dehradun

59. c All the other statements except third are possible.

60. c The train boarded by Jayant was Rajdhani.

61. d The destination of Shradha was either Patna or Dehradun.

**Directions for questions 62 to 65:** The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

It is comforting to know that two of the foremost literary minds of this century, Paul Auster and JM Coetzee, spend a portion of their time writing letters to each other. Rather than being old-fashioned, however, a collection of their epistolary exchange seems to live up to its urgent title, *Here and Now*. When Nobel laureate Coetzee sat down to write a letter to Auster in July 2008, he decided to start by noting the importance of friendship. Paul Auster, who revolutionised contemporary American fiction with books such as *The New York Trilogy*, wasn't pompous in later replies. To seemingly demonstrate the otherwise philosophical exchange, Auster pointedly enquires if Coetzee's partner has recovered from the bronchitis she caught in Europe.

*Here and Now* gives you more than you expect. Predictable references to Plato are undercut by a mention of Johnny Depp. Their repartee proves true Auster's observation in his letter of April 8, 2009 — "The pleasure of competition [...] is most keen when the opponents are evenly matched." The communication, though, isn't all fun and cricket. They animatedly discuss the fallout of the global economic crisis as also the continuing relevance of the Middle East conflict. Their concern for the immediate reality they inhabit is perhaps best demonstrated in Coetzee's signature to a November 2010 letter — "Yours in dark times, John." While a reference to India in the early letters of 2011 can make the country's literary enthusiasts cheer, it does somehow seem fitting that Coetzee, a guest at the Jaipur literary festival, found ease staring at India's cows, not with Diggi Palace's "puzzled" audience.

A practised irreverence for the literary establishment seems evident in the honesty they demonstrate while penning their thoughts on Philip Roth's latest offering and while predicting the reception that Auster's *Invisible* (2009) would receive. Since *Here and Now* only collects their correspondence during 2008 and 2011, there is no evidence of Coetzee mocking a world bewildered to find he had named his 2013 novel '*The Childhood of Jesus*'. On the face of it, the only relation that Coetzee's narrative has to the story of Christ's early years is the fact that each has as its protagonist a precocious and seemingly gifted child.

62. What does the author indicate in the last line of the second paragraph?
- (a) Coetzee does not appreciate the literary knowledge at the Jaipur literary festival.
  - (b) Coetzee has a natural disregard for the literati and especially for those attending a literary festival.
  - (c) Coetzee's visit to India was mainly to imbibe the culture of the country and not to mingle with literary audiences.
  - (d) Coetzee has a natural disdain for the literati and hence states that he is more comfortable with animals than with this group of people.**
62. d Refer to the first line of the last paragraph. It states that both Coetzee and Auster have "a practised irreverence for the literary establishment". This indicates that Coetzee would not be comfortable with this group of people. The last line of the second paragraph also indicates that Coetzee found ease staring at cows as opposed to interacting with the "puzzled audience" at the literary festival. Option (a) is incorrect because there is no indication that Coetzee looks down upon the knowledge level of those present at the festival. An irreverence may not necessarily arise because of a lack in the knowledge level of a person or a group. Option (b) is incorrect because there is no indication in the passage that Coetzee has a special disregard for those attending a literary festival. Option (c) is incorrect because there is no information on the reason behind Coetzee's visit to India. Option (d) is the answer as it embodies all the points needed to explain the sentence in question.

63. Which of the following options best summarizes the given passage?
- (a) **Here and Now is a collection of correspondence between JM Coetzee and Paul Auster and a revelation of their ideas on both literary and non-literary subject matter.**
  - (b) Here and Now is an observation on varied subject matter ranging from Plato, to the Jaipur literary festival, to the books that each author has written.
  - (c) Here and Now is a successful publication of the correspondence between JM Coetzee and Paul Auster and is a rare insight into the workings of two great literary minds.
  - (d) Here and Now, a collection of correspondence between JM Coetzee and Paul Auster, provides insight not only on the opinions of each author but also on the latest publications by each author.
63. a The first paragraph introduces the publication, Here and Now, and indicates that it is a collection of correspondence between the two authors, JM Coetzee and Paul Auster. The second paragraph provides insight on the wide range of topics discussed in the book. The third paragraph provides an understanding on the time frame of the book – between 2008 and 2011. It also states that there is hence no mention of the latest (2013) novel by Coetzee. Option (a) is the answer as it rightly summarises the passage. Option (b) can be ruled out because it does not indicate that Here and Now is a collection of correspondence between the two authors. Option (c) is incorrect because there is no information in the passage that Here and Now is a “successful publication” or a “rare insight” into the workings of two great literary minds. Option (d) is incorrect because it cannot be inferred from the passage whether the book provides insight on (all) the latest publication by *each* author.
64. From the passage, it can be inferred that
- (a) Here and Now is an epistolary exchange between two friends.
  - (b) Here and Now includes critical reviews only of the works of contemporary writers.
  - (c) **Here and Now does not make a reference to The Childhood of Jesus.**
  - (d) the readers of The Childhood of Jesus have been unable to unravel the mystery behind the title of the book.
64. c Option (a) can be ruled out because the passage only provides information that the two writers, JM Coetzee and Paul Auster are contemporaries and competitors (refer to the second sentence of the second paragraph). However, there is no indication that they are friends, though when Coetzee wrote a letter to Auster in July 2008, he mentioned the importance of friendship. Option (b) is incorrect because one cannot infer, on the basis of the passage, that Here and Now only includes reviews of the works of contemporary writers. Option (c) is correct as it can be inferred from the penultimate sentence of the passage. Option (d) is incorrect because there is no mention of a mystery behind the title of the book, ‘The Childhood of Jesus’. In fact, in the last sentence, the author discusses an evident similarity between the book and Christ’s early years. The passage only states that the world was bewildered to find that Coetzee had named his book ‘The Childhood of Jesus’, which probably seemed to toe the line of acceptability. Moreover, the passage makes no reference to the unravelling of any mystery, whether conclusive or inconclusive.
65. The tone of the given passage can be best described as
- (a) laudatory
  - (b) sanguine
  - (c) **admiring**
  - (d) buoyant
65. c The author begins the passage by introducing the book Here and Now and calling it a “comforting” experience. He goes on to enumerate the features of the book which make him state that the book “gives you more than you expect”. He also admires the “honesty that the authors demonstrate” in their epistolary exchange. The entire passage is written in a positive and approving tone. Option (c), *admiring*, comes closest to this and is thus the correct answer. Option (a) is incorrect as the author hasn’t heaped praise on the book or the two authors. He is very subtle in his appreciation of the book. Option (b), ‘*sanguine*’, which means cheerful and happy is incorrect. Though the author has made a few light-hearted remarks, he also talks of some serious issues in the passage like the global economic crises. Option (d), *buoyant*, is incorrect for the same reason. The overall tone is indeed positive but not light-hearted at all places.

**Directions for questions 66 to 69:** The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

Despite the culture minister Ed Vaizey’s insistence that the 30% cut in the Arts Council’s budget is a temporary expedient, many of his Conservative colleagues consider any public funding of the arts a form of

grand larceny. Ivan Lewis, Labour's former culture spokesman, acknowledges that the case for the arts is yet to be won even within his party; and the new arts spokesman, Dan Jarvis, sees quantifying the value of the arts as one of his most urgent priorities. In the zero-sum economy of austere Britain, the arts are increasingly required to couch their case in terms appropriate to those basic services – social care, education, policing – with which they're in competition for dwindling public funds.

It wasn't always like this. When it was founded in 1946, the Arts Council could justify its activities in its own terms: it was there to widen access to the arts throughout the country, as well as to maintain and develop national arts institutions in the capital. Behind the latter policy lay a theory of artistic value that you could call patrician: art's purpose as ennobling, its realm the nation, its organisational form the institution, its repertoire the established canon and works aspiring to join it. In this the council was seeking to reverse a rising tide of populism (art's role as entertainment, its realm the marketplace, its form the business, its audience mass), a goal summed up in the founding chairman John Maynard Keynes's ringing declaration: "Death to Hollywood".

Over the following 30 years, this view of the value of the arts came under attack, not from the marketplace but from artists who were artistically and often politically oppositional. In the theatre in the late 1950s, on the BBC in the early to mid-1960s, and pretty much everywhere from 1968, patrician arts institutions were challenged and in many cases transformed by those who believed the arts weren't there to elevate or divert, but to provoke.

What both the patrician and the provocative shared was a primary concern for the people making the art. During the 80s, in the arts as in so many other spheres of life, Margaret Thatcher sought to shift power from the producer to the consumer, using the market to disempower the provocative (from political theatre groups to the high avant garde) in favour of the populist. This was seen most clearly in the cluster of forms that defined the cultural 80s. Popular in form and patrician in content, the heritage industry was cultural Thatcherism, promoting our country, our cultural heritage and our tourist trade.

66. Which of the following options best describes the purpose of the given passage?
- (a) To illustrate how the value of art as patrician has declined over the years
  - (b) To depict how art has moved from delivering a patrician value to presenting a provocative purpose
  - (c) To show how funding for the arts depends on the political climate and economic progress while the role art takes depends on their most influential aficionados
  - (d) To elucidate, while giving a background of the changing face of art, how publicly funded arts institutions are now under pressure to quantify the social benefits they bring**

66. d The passage starts with discussing the attitude of many politicians who think that public funding for the arts is a way of stealing resources. The rest of the first paragraph focuses on the need of arts to quantify their value in order to obtain public funding. The last line indicates that in terms of funds, arts face competition from basic services. The rest of the passage goes on to discuss that this was not always the situation. Arts could justify their existence, and their purpose changed from patrician to populist to provocative and then to patrician-populist in the 80s. Thus, the author aims to explain how arts now have to justify their case in a way which is more appropriate to other services. Option (d) encapsulates all this and is thus the answer.

Option (a) is incorrect as the author only states how arts have developed over the years, from which it cannot be inferred that the value of arts as patrician has declined. Even if true, this declining value of arts cannot be said to be the purpose of the passage.

Option (b) is not supported by the passage as the last paragraph indicates that, during the 80s, Margaret Thatcher disempowered the provocative in favour of the populist. Thus, it is far from being the purpose of the passage.

Option (c) is incorrect because the author hasn't compared the political climate in the past to that of today to show that funding for the arts depends on the political climate. Nor is there any mention of 'influential aficionados' determining the role of arts.

67. Which of the following does not highlight a point of difference between the patrician and the populist purposes of art?
- (a) The former placed importance on the producers of arts.
  - (b) The former was a competition to the established works of Hollywood.**
  - (c) The latter saw arts as leisure and as a way to enthrall the audience.
  - (d) The latter was not elitist and was made for the masses.
67. b Refer to the last three paragraphs. Option (a) can be inferred from the first line of the last paragraph. Option (c) can be inferred from the last line of the second paragraph (art's role as entertainment with reference to populism). Option (d) can be inferred from the last line of the second paragraph (its audience mass – with reference to populism) and from the second sentence of the last paragraph – "...to disempower the provocative (from political theatre groups to the high avant garde) in favour of the populist." This indicates that the populist form of art had mass appeal but wasn't elitist. The statement mentioned in option (b) cannot be inferred from the passage because there is no indication that the patrician form of art was competition to the works of Hollywood. The second paragraph indicates that the patrician form of art was different from the populist one, which laid stress on art's role as entertainment. The last line of this paragraph only suggests that the aim of the Arts Council was to reverse the rising tide of populism which was dubbed as "Death to Hollywood". Option (b) is thus the answer.
68. Which of the following correctly states the contribution made by Margaret Thatcher to art, as per the passage?
- (a) Thatcher was a populist leader who had her finger on the pulse of her people.
  - (b) Thatcher's populist policies extended to formal reforms in the field of arts.
  - (c) Thatcher's endeavours resulted in arts that were popular in structure and noble in substance.**
  - (d) Thatcher helped shift the focus of arts from the producer to the consumer.
68. c Refer to the last paragraph. The second line indicates that, in the arts, too, Margaret Thatcher tried to shift power from the producer to the consumer, hence leading to the prevalence of the populist form of art. However, this does not indicate that she shifted the focus of art from the producer to the consumer. In the passage, neither of the two has been stated as the focus (the center of attention) of art. Option (d) can thus be ruled out.
- Option (a) can be ruled out because it is general and does not specifically pertain to art.
- Option (b) can be ruled out because there is no indication of formal reforms in the arts sector. The last line indicates that art itself changed in Thatcher's times but there isn't enough information to infer that formal changes took place.
- Option (c) is the answer as it can be inferred from the last line of the paragraph. It states that the kind of art that emerged in the 80s as a result of Thatcher's efforts was "Popular in form and patrician in content..."
69. According to the passage, which of the following best describes the irony in the need of public funding for arts?
- (a) Art, which inherently is subjective, needs to quantify its value in order to attract public funding.
  - (b) Opposing political parties, which are usually at loggerheads with one another, are surprisingly on the same page when it comes to funding for arts.
  - (c) Arts need to state their purpose in order to acquire public funding; but it is because of the very absence of adequate funding that they struggle to find their purpose.
  - (d) Arts need to justify their case for public funding by stating it in a way more suited to some basic services, with which they are competing for funds.**
69. d Refer to the last sentence of the first paragraph. The author states that Arts have to put forward their case for public funding in "terms appropriate to those basic services...with which they're in competition..." The next paragraph illustrates how in previous times, Arts Council could justify its activities in its own terms. The irony lies in the fact that, in order to procure funding, art now has to present its case in a way which is more suited to its competitors than to itself. This is best brought out in option (d) which is the correct answer.
- Option (a) is incorrect as art being "inherently subjective" doesn't find any basis in the passage.
- Option (b), though ironical, is incorrect for the phrase "usually at loggerheads". It cannot be inferred from the passage

that opposing political parties are usually against each other. Moreover, it is not an irony in "the need of public funding for art" as asked in the question.

Option (c) is incorrect as the passage neither states that art is struggling to find its purpose nor that this struggle for the purpose can be attributed to the lack of adequate funding. The passage only states that over the years the purpose of art has changed, which cannot be inferred to be related to the funds available.

**Directions for questions 70 to 72:** Answer the questions on the basis of the information given below.

Seven books, each on a different subject among Physics, Chemistry, Mathematics, Biology, English, Hindi and Sanskrit, are kept in a stack, not necessarily in this order. The books are numbered 1 to 7 from bottom to top. It is also known that:

- (i) One has to remove at least 4 books from the top to reach the Chemistry book.
  - (ii) The number on the Physics book cannot be expressed as the arithmetic mean of any two numbers on the other books.
  - (iii) There are exactly three books between the English book and the Hindi book.
  - (iv) The Biology book is at one of the extreme ends of the stack.
  - (v) The Mathematics book occupies the 3<sup>rd</sup> position from one of the extreme ends of the stack.
70. The number of books between the books of Hindi and Chemistry is  
 (a) 0                      (b) 1                      (c) 2                      (d) Either (a) or (c)
71. Had the books been numbered 1 to 7 from top to bottom, what would have been the sum of the numbers on the books of English and Hindi?  
 (a) 8                      (b) 7                      (c) 5                      (d) 10
72. If the Biology book is at the bottom, and the numbers on the Physics and Sanskrit books are interchanged, what will be the new number on the Sanskrit book?  
 (a) 7                      (b) 4                      (c) 5                      (d) 2

**For questions 70 to 72:**

From the statement (ii), it can be concluded that the number on the Physics book is either 1 or 7. From statement (iv) along with the inference drawn, it can be concluded that the books at the top and bottom are Biology and Physics, not necessarily in this order. Now, from statement (iii), the numbers on the Hindi and English books have to be 2 and 6, not necessarily in this order.

From statements (i) and (v), it can be deduced that the numbers on the book Chemistry, Sanskrit and Mathematics are 3, 4 and 5 respectively.

After collating above drawn conclusions, the order of the books in the stack is:

Numbering	Books
7	Biology/Physics
6	English/Hindi
5	Mathematics
4	Sanskrit
3	Chemistry
2	Hindi/English
1	Physics/Biology

70. d The number of books between Hindi and Chemistry books is either 0 or 2.
71. a The sum of the numbers on the English and the Hindi book would have remained unaltered, had the numbers on books been 1 to 7 from top to bottom. Hence, the sum of the numbers on the English book and the Hindi book will be  $(2 + 6)$  i.e. 8.
72. a If the Biology book is at the bottom i.e. number on it is 1, then the number on the Physics book will be 7. Hence, in the event of interchange of numbers on the Physics and Sanskrit books, the number on the Sanskrit book will be 7.

73. The word given below has been used in the given sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is *incorrect or inappropriate*.

**Lash**

- (a) The black Komodo dragon lashed its tail furiously on seeing the hunter.  
(b) The gift was lashed down with a heavy nylon cord and a buckle.  
(c) He lashed out at his attacker and kicked him in the ankle.  
**(d) The police officer pulled the lashes, but the dog continued to attack his suitcase.**

73. d The usage of the word 'lashed' in sentence (a) is correct. It means to move something quickly and violently from side to side. In sentence (b), 'lashed down' is a phrasal verb, which means to have been secured with ropes and has been correctly used in the sentence.

Sentence (c) is correct because 'lashed out' is a phrasal verb, which means to try to hit somebody suddenly and the usage is correct in the given sentence.

Sentence (d) is incorrect because of the wrong use of the noun 'lashes' in the sentence. The correct noun that should have been used here is 'leash' which means 'a long piece of leather, chain or rope used for holding and controlling a dog'. Hence, option (d) is the correct answer.

74. Four sentences are given below labeled (a), (b), (c) and (d). Of these, three sentences need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the one that does not fit the sequence.

- (a) Inadequate indigenous technological capability was a corollary of this stunted development.  
**(b) The pattern appears to corroborate the view that technology intensity does not explain foreign presence, challenging the premise that foreign collaboration is needed to access advanced technology.**  
(c) In the event, Indian industrialization was dependent on imports of both technology and capital equipment.  
(d) The constraints on industrialization under colonialism meant that organized industry in India contributed very little to GDP, was limited in terms of diversification and was handicapped by the lack of a capital goods industry of any significance.

74. b Option (d) is the first sentence as it introduces the topic. Options (d) and (a) make a mandatory pair as the "this stunted development" mentioned in option (a) refers to the limitations and handicaps suffered by the Indian industry, mentioned in option (d). Option (c) is next in the sequence as it mentions the consequences of the "stunted development" that has been outlined in the earlier two options. Option (b) does not fit in the sequence as it corroborates a viewpoint contrary to what has been mentioned in the other three options and is thus, the correct answer.

**Directions for questions 75 to 77:** Answer the questions on the basis of the information given below.

A psychiatrist analysed the results of a test conducted to assess three personality traits—Patience, Compassion and Honesty—on five of his patients—A, B, C, D, and E. He evaluated each of the personality traits on a scale of 1 to 5 (integers only). It is also known that:

- (i) Scores of no two patients were same in any of the traits.  
(ii) No patient was assigned the same score in all the three traits.  
(iii) Only two patients were assigned the same score in two traits.  
(iv) The score of A in Compassion was equal to that of C in Honesty which was 4.  
(v) The score of E in Compassion was 1 more than his score in Patience, which, in turn, was 2 less than his score in Honesty.  
(vi) Neither A's nor B's score in any of the traits was 5.  
(vii) The score of D in Patience was equal to that of A in Compassion, and the score of C in Compassion was the same as that of A in Honesty.

75. The score assigned to A in Patience was  
 (a) 2                                  (b) 3                                  (c) 5                                  **(d) Cannot be determined**
76. For which of the following pairs of traits can we be sure that no patient had the same score?  
 (a) Patience and Compassion    (b) Compassion and Honesty  
 (c) Patience and Honesty    **(d) None of these**
77. How many patients scored less than or equal to A in each of the three traits?  
**(a) 0**    (b) 2    (c) 1    (d) 3

**For questions 75 to 77:**

Let the score of E in patience and that of A in honesty be  $x$  and  $y$  respectively. Now, preliminary table on the basis of the given information can be drawn as shown below.

Patients	Patience	Compassion	Honesty
A		4	$y$
B			
C		$y$	4
D	4		
E	$x$	$x + 1$	$x + 2$

Since scores of no two patients were same in any of the traits, the value  $x$  of must have been 1. From statements (vi) and (vii), it is obvious that the scores of B and C in Compassion could not be 5. So the score of D in Compassion as well as in Honesty was 5. From statements (iii) and (vi), it can be deduced that the score C in Patience was 5.

Further analysis leads to the following table.

Patients	Patience	Compassion	Honesty
A	3/2	4	1
B	2/3	3	<b>2</b>
C	5	1	4
D	4	5	5
E	1	2	3

75. d The score of A in patience cannot be determined.  
 76. d The pairs of traits given in the options could have the same score.  
 77. a No patient scored less than or equal to A in each of the three traits.  
 78. Five sentences are given below labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate one.
- A. As the government prepares for its home-run dash leading up to next year's parliamentary elections, India's key financial administrators and macro-managers are stuck with major headaches.
  - B. There is no gainsaying the fact of the significance of prices in an election year.
  - C. The same amount of money buys fewer goods.
  - D. Economic theory calls this phenomenon a fall in real income.
  - E. Inflation may have moderated a tad in the last few months, but there have been very few periods in India's contemporary history when prices have remained so stubbornly high for such a long period.

**(a) AECDB**

**(b) EDCAB**

**(c) ECDAB**

**(d) ABECD**

78. a AECD forms a mandatory sequence. Statement A talks about the government preparing for next year's parliamentary elections and then goes on to say how India's key financial administrators are "stuck with major headaches". These "headaches" are mentioned in statements E ("prices have remained so stubbornly high for such a long period") and C ("The same amount of money buys fewer goods."). Further, the word "phenomenon" mentioned in statement D refers to the fact that has been stated in statement C. This makes CD a mandatory pair. Finally, statement B ends the paragraph by concluding that the significance of prices in an election year cannot be denied. Hence, option (a) is the correct answer.
79. Given below are five sentences or parts of sentences that form a paragraph. Identify the sentence(s) or part(s) of sentence(s) that is/are *incorrect* in terms of grammar and usage. Then, choose the most appropriate option.
- A. I left home for Glasgow when I was 18.
  - B. Edinburgh was much nearer, but Glasgow was where I wanted to be – an ambition born in boyhood when visits to relatives meant passing through a city where trams queued in the streets and ships filled the river, and a shop called the Clyde Model Dockyard always had a crowd of fathers and sons looking in at the window.
  - C. Of course, by the time I was 18 I knew about the other stuff – tenements, poverty and crime – but none of it detracted the prospect of living there.
  - D. I was a Fife boy who wanted to be a Glaswegian, to be part of this great black city that seemed inexhaustibly interesting.
  - E. Hemingway and his friends invested no greater emotion to Paris.

(a) A and B

(b) C and D

**(c) C and E**

(d) B and E

79. c Sentences A, B and D are grammatically correct. Sentence C is incorrect because of the absence of the preposition 'from' after detract. 'Detract from' is the correct phrasal verb that should be used in this sentence. It means 'to make something seem less good or enjoyable'. Therefore, the correct sentence is "...but none of it detracted from the prospect of living there." Statement E is incorrect because the use of the preposition 'to' is improper in the given context. The correct phrase is to 'invest' something 'in' something. It means 'to spend time, energy, effort, etc. on something that you think is good or useful'. Thus, the correct sentence is – "Hemingway and his friends invested no greater emotion in Paris." Hence, option (c) is the correct answer.
80. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.

The valleys are located in a strange, pincer-shaped \_\_\_\_\_ of land \_\_\_\_\_ from the northeast corner of Afghanistan.

(a) accessory, protruding  
(c) island, stretching

(b) piece, located  
**(d) appendage, jutting**

80. d Although 'protruding' is apt in the second blank, option (a) is incorrect because the word 'accessory' is inappropriate in the first blank. 'Accessory' refers to an object or a device that is not essential in itself but adds something to the convenience or effectiveness of something else. Option (b) is incorrect because 'from' is not the correct preposition to be used with the word 'located' as given in the option. The correct phrase would be '...land located in the northeast...' Option (c) can be negated because the phrase 'island of land' does not make sense. An 'island' in itself means a piece of land that is surrounded by water. So, using the phrase 'of land' with it makes it redundant. Further, the word 'stretching' is also incorrect in the second blank as the phrase 'stretching from', which means spreading over an area, should ideally be followed by the prepositional phrase 'to something'. Thus, the correct statement would have been '...land stretching from the northeast corner of Afghanistan to Pakistan's border.' Option (d) is the correct answer as 'appendage', which means a smaller or less important part of something larger, fits into the first blank perfectly and 'jutting', which means to stick out further than the surrounding surface, objects, etc. or protruding, is also appropriate in the second blank.

81. A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.

Observations from field visits indicated that while sanitation facilities were insufficient, a bigger problem was the condition of existing facilities. Public and community toilets could have been designed better. Problems such as unplanned spaces, selection of construction material, leaking taps, broken toilet pans, inaccessible toilets, lack of ventilation, clogged networks and insufficient water and electricity, figured prominently. Most facilities were found to be unfit for use by the dependent population like children, the elderly and the differently-abled. \_\_\_\_\_

- (a) The lessons learnt in the early stages of this exercise can help in better planning and implementation of sanitation services in other States as well.
- (b) The striking observation during these visits was the lack of administrative responsibility in providing sanitation facilities.
- (c) Communities were divided when it came to deciding a solution for the lack of these facilities.
- (d) It was clear that the expansion of facilities could not take place with the existing design of toilets.**

81. d The paragraph has been written in a negative tone and discusses the dismal conditions of the existing sanitation facilities. Option (a) can be ruled out because it has a rather positive tone. Also, it talks about the lessons learnt while the paragraph is specifically about the problems that were observed from the field visits. Further, the paragraph discusses precise issues related to public and community toilets and not administrative issues. Hence, option (b) can also be negated. Option (c) is incorrect because the paragraph simply discusses a problem and there is no indication of a move towards a solution. Option (d) is the correct answer as it is a culmination of the information in the entire paragraph – “the expansion of facilities” links with the first sentence that talks of insufficient sanitation facilities, the third and the penultimate sentences indicate that the sanitation facilities are structurally flawed which is linked with the problem of “existing design” being talked about in the option.

82. There are two gaps in the sentence/paragraph given below. From the pairs of words given, choose the one that fills the gaps most appropriately.

Chile \_\_\_\_\_ Easter Island in 1888, but until 1953 it allowed a Scottish company to \_\_\_\_\_ the island as a giant sheep ranch.

- (a) procured, control
- (c) acquired, negotiate

- (b) annexed, manage**
- (d) captured, manipulate

82. b While both ‘control’ and ‘manage’ are appropriate for the second blank, option (b) is correct. ‘Annex’ which means ‘to take control of a country, region, etc. especially by force’ is appropriate for the first blank but ‘procure’ which means ‘to obtain something, especially with difficulty’ is inappropriate in the context of an island because one procures ‘objects and things’ like reports, pens, chairs, etc. Option (a) can thus be ruled out. Although ‘acquired’ is correct in the first blank, ‘negotiate’ which means ‘to try to reach an agreement by formal discussion’ is inappropriate for the second blank, which renders option (c) incorrect. In option (d), ‘captured’ fits in the first blank but ‘manipulate’ which means ‘to subtly control or influence somebody/something, often in a dishonest way’ does not fit in the second blank as the word cannot be used in reference to an island.

83. Four sentences are given below labeled (a), (b), (c) and (d). Of these, three sentences need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the one that does not fit the sequence.
- (a) This ignores the evidence that major policy shifts over the past two decades have fundamentally altered the economic environment, making neoliberal reform a possible explanation and not a solution for the current mess.
- (b) They have veered around to the view that the true measure of economic success is the willingness of foreign firms to enter the country and establish a strong presence.**
- (c) Confronted by signs of economic vulnerability, India's economic policy makers are blaming poor performance on inadequate reform.
- (d) Measures to appease and attract foreign capital are being advocated and announced as a solution to the country's problems.
83. b Options (c) and (d) make a mandatory pair as they are thematically related. While option (c) states that the policy makers are attributing poor performance to inadequate reform, option (d) talks about the measures that they are promoting to deal with the situation. Option (a) comes next as it further points out a flaw in the proposed solutions by mentioning how reforms may be a possible explanation for, but not a solution to, the country's economic woes. Option (b) mentions a point which is not being discussed here, i.e. what the policy makers consider to be a measure of economic success. Moreover, the sentence starts with the phrase "veered around to the view" which means they have digressed from the main viewpoint. This does not fit logically after option (c) – option (c) talks of "inadequate reforms" which can be easily linked to the "willingness of foreign firms" in option (b) and thus does not require the phrase mentioned above. Thus, option (b) does not fit the sequence and is hence, the correct answer.
84. A paragraph is given below from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.
- What is the secret of Gandhiji's world-wide fame and unquestioned influence? For one thing, his culture had all the traits of what is called the culture of character. He thought closely and seriously; he insisted on seeking fact or truth for one's self boldly and clearly, and not merely echo it as hearsay; he cherished, not fashions or expedients of thinking, but true convictions with a strength of feeling which neither the coaxing of friends nor the railleries and the rapier thrusts of opponents could weaken. Throughout his career in whatever continent, country or clime his activity for the time being lay – whether in South Africa, Sabarmati or Champaran—he carried to those among whom he worked unquestionable conviction that he could be trusted. \_\_\_\_\_
- (a) No wonder so many leaders of thought in Europe and America have been profoundly struck and influenced by his ideas of plain living.
- (b) He was like that watchman set unto the house of Israel referred to in Ezekiel.
- (c) If we are true to Gandhiji's teachings, nothing must deflect us from considering all classes, castes and communities as children of the same mother.
- (d) It was because he inspired such trust that he proved a determining force in the formation of public opinion.**
84. d The paragraph starts with a question that the subsequent lines seek to answer. It further attempts to delve into the reasons for Gandhiji's fame and influence. In doing so, it also reveals Gandhiji's ideologies and convictions and the effect that this had on others ("he worked unquestionable conviction that he could be trusted"). Option (d) logically completes the paragraph because it comments on the "unquestionable conviction" mentioned in the last line and also answers the question in the first line. Further, "such trust" refers to the trust factor that has been mentioned in the last line of the given paragraph.
- Option (a) is incorrect because it shifts the subject to the leaders of thought in Europe and America. Throughout the paragraph, the structure is such that Gandhiji remains the subject at all times.

Option (b) is an abstract statement and goes against the structure of the paragraph – clear statements of opinions or fact. Further, the allusion of the “watchman...of Israel” is not clear.

Option (c) can be negated because there is a shift in tone in this sentence. The paragraph has been written in an analytical tone while the sentence in option (c) has more of a prescriptive tone.

**Directions for questions 85 to 87:** Answer the questions on the basis of the information given below.

Four teams—T1, T2, T3 and T4—participated in a tournament of ‘Bat and trap’, an English bat-and-ball pub game. In the tournament, each team played exactly one match with each of the other teams. The matches were played on six consecutive days of a week from Monday to Saturday. Two points were awarded to the winner of a match and no points to the loser. No match in the tournament resulted in a tie/draw. It is also known that:

- I. T1 won only one match in the tournament and it was played on Monday.
  - II. The match played on Thursday was won by T4.
  - III. T3 won against T2 on Tuesday.
  - IV. T2, T3 and T4 definitely did not play on Wednesday, Monday and Saturday respectively.
  - V. T2 and T3 ended up with the same number of points at the end of the tournament.
85. How many points did T4 score in the tournament?  
(a) 2    (b) 4    (c) 6    (d) Cannot be determined
86. T3 lost its match against  
(a) T1    (b) T2    (c) T4   (d) Both T1 and T2
87. The match played on Friday was between  
(a) T1 and T2    (b) T2 and T3    (c) T1 and T4    (d) T2 and T4

**For questions 85 to 87:**

From statements (III) and (V), it can be concluded that both T2 and T3 ended up with either 2 or 4 points.

**Case 1:** When T2 and T3 scored 2 points each.

Since T3 won against T2, T3 must have lost its remaining matches and T4 must have won all its matches. Thus, T1 must have played on Monday against T3, but this was not the case as per the statement (IV). Hence, this case is invalid.

**Case 2:** When T2 and T3 scored 4 points each.

Since T2 lost against T3 on Tuesday, it must have won against T1 and T4. From statement (IV), T2 and T4 did not play on Wednesday and Saturday respectively. So T2 must have won its matches against T4 and T1 on Friday and Saturday respectively.

Further analysis leads to the following table.

Day	Match played between	Winner
Monday	T1 & T4	T1
Tuesday	T2 & T3	T3
Wednesday	T1 & T3	T3
Thursday	T3 & T4	T4
Friday	T2 & T4	T2
Saturday	T1 & T2	T2

85. a T4 scored 2 points.

86. c T3 lost against T4.

87. d The match played on Friday was between T2 and T4.

88. Four sentences are given below labeled (a), (b), (c) and (d). Of these, three sentences need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the one that does not fit the sequence.

- (a) **Nostalgia and wonder are the two emotions that dominate visitors' minds when they view the quaint collection of artwork harking back to an idyllic Bangalore, in Fernandes' small gallery, aPaulogy.**
- (b) Thus nostalgia works at several levels, and as humans think that the condition of their lives is improving as they head into the future, a part of their mind also harks back to a supposedly simpler time when life was more peaceful.
- (c) Nostalgia can exist only when there is a linear conception of time and modernity, with its notion of progress, is deeply intertwined with the concept of nostalgia.
- (d) And Fernandes' work satiates that hunger for nostalgia an old Bangalorean would have.

88. a Options (c) and (b) are a mandatory pair as the deep intertwining between modernity and nostalgia is summed up and explained in option (b). Similarly, options (b) and (d) are also a mandatory pair and 'that hunger' mentioned in option (d) refers to the harking back of the human mind to 'a supposedly simpler time' in the past 'when life was more peaceful'. This sequence therefore deals with nostalgia and how such a sense of nostalgia finds expression in the artist's work. Option (a), though on seemingly related lines, actually talks about the reaction of observers of the artist's work rather than how the work evokes such a reaction and therefore it does not fit into the sequence.

89. The word given below has been used in the given sentences in four different ways. Choose the option corresponding to the sentence in which the usage of the word is *incorrect or inappropriate*.

### **Buy**

- (a) The negotiators kept the gunman talking to buy time for the hostages.
- (b) She had never bought into the idea that to be attractive you have to be thin.
- (c) Joe finally bought it in a plane crash in Tunisia.
- (d) **Supermarkets have been buying out champagne for Christmas.**

89. d Option (a) has the correct usage of the word 'buy'. 'Buy time' means to delay something. Option (b) is also correct for 'bought into an idea' means to believe in an idea. 'Bought it', as mentioned in option (c), means to die. 'Buying out' means to pay somebody for their share in a business, usually in order to get total control of it for yourself or to pay money so that somebody can leave an organization before the end of an agreed period. It is incorrect in the given sentence and the correct usage is 'buying in', which means to buy something in large quantities. Therefore, option (d) is the correct answer.

90. Given below are five sentences. Each sentence has a pair of words that are *italicized*. From the italicized words, select the most appropriate words (A or B) to form correct sentences. The sentences are followed by options that indicate the words, which may be selected to correctly complete the set of sentences. From the options given, choose the most appropriate one.

- A. If things turned out badly, his first idea – to dash off abroad – might be considered *tantamount* (A)/*paramount* (B) to a confession of his involvement.
- B. One species of bird, the hooded pitohui, is *venomous* (A)/*poisonous* (B), secreting a neurotoxin onto its skin and feathers.
- C. Many Americans are the *prodigy* (A)/*progeny* (B) of immigrants.

- D. On 'Office Office', Hemant Pandey played a confident, articulate buffoon with a serious attitude and an *officious*(A)/ *official* (B) air.
- E. It was proposed that the club should meet more frequently instead of having a weekly meeting, hence, a *semi-weekly* (A)/ *bi-weekly* (B) meeting was suggested.

**(a) ABBA**

**(b) AABAB**

**(c) BABAB**

**(d) BABBA**

90. a The correct answer is option (a).

In sentence A, 'tantamount' means equivalent while 'paramount' means more important than anything else; so the correct word in the context of the given sentence is tantamount.

'Poisonous' means a substance (or organism) that is harmful if consumed or touched. 'Venomous', on the other hand, refers to an organism which produces venom that proves toxic if injected under the skin (by spiders, snakes, etc.). Since the sentence talks about the bird that secretes a toxic onto its skin, the correct word in sentence B is poisonous. 'Progeny' is the correct word in Sentence C; it means offspring or descendant. 'Prodigy' means a person with exceptional talent or powers.

In sentence D, 'officious' is the correct word that means meddlesome. 'Official' means something relating to an authority or a public body or an organisation.

'Semi-weekly' means twice in a week while 'bi-weekly' means every two weeks. The word bi-weekly, according to some dictionaries, also means twice in a week. However, choosing 'bi-weekly' over 'semi-weekly' makes the sentence ambiguous as the meaning implied in the sentence may not be clear. Hence, the appropriate word to be used in sentence E is 'semi-weekly'.

91. Five sentences are given below labeled A, B, C, D and E. They need to be arranged in a logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate one.

- A. We belong to a community of minds, developed over hundreds of thousands of years, to which our brains give us access but which is not confined to the stand-alone brain.
- B. It's enough to acknowledge that our consciousness is not tucked away in a particular space, but is irreducibly relational.
- C. You don't have to be a Cartesian dualist to accept that we are more than our brains.
- D. Studies that locate irreducibly social phenomena – such as "love", the aesthetic sense, "wisdom" or "Muslim fundamentalism" – in the function or dysfunction of bits of our brains are conceptually misconceived.
- E. What is more, our moment-to-moment consciousness – unlike nerve impulses – is steeped in a personal and historical past and a personal and collective future, in cultures that extend beyond our individual selves.

**(a) CBEAD**

**(b) ADCBE**

**(c) CBAED**

**(d) AEDCB**

91. a There is a clear CB link. Statement C states that one doesn't have to be a Cartesian dualist to acknowledge the fact that there is more to us than our brains. Statement B comments on this by saying that it is enough to acknowledge a fact related to our consciousness (which is more than our brains). CB thus forms a mandatory pair. Statement E follows statement B because it comments further on the consciousness - the hint is from the phrase that statement E begins with (What is more, our ... consciousness...). This helps to rule out options (c) and (d). Statement A follows statement E because the latter mentions the fact that our consciousness is a culmination of our past as well as our future and derives itself from our cultures. The statement indicates that our consciousness goes beyond our individual selves - an assertion corroborated and elaborated by statement A (indicating that we belong to a community of minds). Statement D furthers the discussion in statement A by discussing a concept of community and society - social phenomenon such as love and wisdom. The statement also comes in as a conclusion and states that studies that link social phenomenon with the stand-alone brain are flawed, indicating that such phenomena are beyond the individual selves. Option (a) contains this sequence and is thus the answer.

**Directions for questions 92 to 95:** The passage given below is followed by a set of four questions. Choose the most appropriate answer to each question.

A dissimilarity of perceptions has been an important characteristic of Western interpretations of India, and several different and competing conceptions of that large and complex culture have been influential in the West. The diverse interpretations of India in the West have tended to work to a considerable extent in the same direction and have reinforced each other in their effects on the internal identities of Indians. This is not because the distinct approaches to India are not fundamentally different; they certainly are very disparate. The similarity lies more in their impact – given the special circumstances and the dialectical processes – than in their content.

The analysis to be pursued here would undoubtedly invite comparison and contrast with Edward Said's justly famous analysis of 'Orientalism'. Said analyzes the construction of the 'Orient' in Western imagination. As he puts it: "The Orient is an idea that has a history and a tradition of thought, imagery and vocabulary that have given it reality and presence *in and for the West*." This essay has a much narrower focus than Said's but there is clearly an overlap of subject matter since India is part of the 'Orient'. The main difference is at the thematic level. Said focuses on uniformity and consistency in a particularly influential Western characterization of the Orient, whereas I shall be dealing with several contrasting and conflicting Western approaches to understanding India.

Said's work deals principally not with a correspondence between Orientalism and the Orient, but with the internal consistency of Orientalism and its ideas about the Orient. I would argue that unless one chooses to focus on the evolution of a specific conceptual tradition, 'internal consistency' is precisely the thing that is terribly hard to find. There are several fundamentally contrary ideas and images of India, and they have quite distinct roles in the Western understanding of the country and also in influencing the self-perception of Indians.

Attempts from outside India to understand and interpret the country's traditions can be put into at least three distinct categories, which I shall call *exoticist* approaches, *magisterial* approaches and *curatorial* approaches. The first category concentrates on the wondrous aspects of India. The second category strongly relates to the existence of imperial power and sees India as a subject territory from the point of view of its British governors. The third category is the most catholic of the three and includes various attempts at noting, classifying and exhibiting diverse aspects of Indian culture. Unlike the first, it does not look only for the strange and unlike the second, it is not weighed down by the impact of the ruler's priorities. For these reasons there is more freedom from preconceptions in this third category.

92. Which of the following statements can be inferred from the given passage?
- (a) The dialectical processes of Western studies about India have produced an incomplete understanding of the country in the West.
  - (b) Even though Western scholars have followed different approaches, they have reinforced each other's perceptions of India.
  - (c) Western interpretations of India have played a major role in determining the self-perception of Indians.
  - (d) In spite of touching upon several overlapping issues, the current essay is fundamentally different from Said's justly famous analysis of 'Orientalism'.

92. d The author clearly mentions in the given passage that his work is bound to have several overlapping areas with that of Edward Said since the author deals with India which is a subset of the Orient, which was the focus of Said's research. However, he goes onto clarify that the two works are fundamentally different on account of thematic differences between the two. Thus, option (d) is the correct answer.  
Option (a) is incorrect since the passage only talks about varied approaches to and interpretations of the study of India by Western scholars. There is no mention of such differences producing an incomplete study.  
Option (b) is negated as the passage clearly mentions that 'a dissimilarity of perceptions has been an important characteristic of Western interpretations of India'. Moreover, according to the passage, it is the self-perception of the Indians (the effect) that gets reinforced due to varying interpretations from the West and not the interpretations of the scholars themselves (the cause).  
Option (c) is incorrect as we only know that Western interpretations have certainly contributed to influencing the internal identities of Indians but we cannot infer whether they have played a 'major role' in this.
93. Why does the author call the curatorial approach as the 'most catholic' of the three categories of approaches from outside India to understand and interpret the country's traditions?  
(a) Because it is the most orthodox and traditional Western viewpoint with regards to the study of India's past and culture.  
(b) Because it is similar to Western patterns of thought regarding the noting, classifying and exhibiting of diverse aspects of Indian culture.  
**(c) Because it is a more open and objective approach to the study of Indian history and culture.**  
(d) Because it does not have a specific and limited objective for the research and is open to borrowing from other approaches and traditions.
93. c The word 'catholic' implies universality. This aspect of the curatorial approach is emphasized by the author when he says that this approach is neither limited in scope to looking out for the 'strange' in India nor was it prejudiced in its approach by the priorities of the British rulers. Thus, the curatorial approach was more open minded and objective. Option (c) can hence be inferred as the correct answer.  
Options (a) and (b) are incorrect as both of them do not find any basis in the passage.  
Option (d) is incorrect since it mentions that the curatorial approach does not have a limited and specific objective of its research. However, the passage is silent with regards to the objective of the curatorial approach and merely talks about the openness and liberality of it.
94. The author of the passage is most likely to agree with which of the following statements?  
**(a) Edward Said chose to focus on the evolution of a specific conceptual tradition.**  
(b) The comparison between Said's 'Orientalism' and the current essay is unfair since the two works differ at a fundamental thematic level.  
(c) Western studies of India – its historical, cultural and religious traditions – have served to promote a pluralistic view of Indian society.  
(d) Said's text 'Orientalism' is an exhaustive work on the tradition of thought, imagery and vocabulary of the Orient.
94. a The author clearly mentions that "unless one chooses to focus on the evolution of a specific conceptual tradition, 'internal consistency' is precisely the thing that is terribly hard to find." Since Said deals with such internal consistency in his work, it follows that he did indeed chose to focus on a specific conceptual tradition in Western thought. Thus, option (a) is the correct answer.  
Options (b) and (d) are incorrect as neither of them can be inferred from the information in the passage.  
Option (c) is incorrect since the passage clearly states that "the diverse interpretations of India in the West have tended to work to a considerable extent in the same direction", rather than promoting a pluralistic view.

95. Which of the following can be considered as the purpose of the author in composing the given text?
- (a) Making a comparison between Edward Said's and his own work on Orientalism
  - (b) Underlining the misconceptions and inconsistencies of thought in the various Western interpretations of India
  - (c) Highlighting the different approaches of Western scholarship to the study of India**
  - (d) Highlighting all attempts from outside India to underline and interpret the country's traditions

95. c The author has not set out to compare his work with that of Said, but merely states that others are likely to do so. Thus, option (a) is incorrect.  
Option (b) is negated as the author merely says that his work looks at several contrasting and conflicting Western approaches to understanding India. This does not necessarily imply that he is out to point inconsistencies and misconceptions in these interpretations. The tone is more of an objective analysis.  
Option (d) is negated since the author says that he intends to study 'several' Western approaches to the study of India but makes no attempt to say that his is an exhaustive work covering all Western thought and writing on India.  
The author clearly mentions in the passage that his work is thematically different from Said's, in spite of some overlap, and while "Said focuses on uniformity and consistency in a particularly influential Western characterization of the Orient" the author says that his work "shall be dealing with several contrasting and conflicting Western approaches to understanding India". Thus, option (c) is the answer.

96. Given below are five sentences or parts of sentences that form a paragraph. Identify the sentence(s) or part(s) of sentence(s) that is/are *incorrect* in terms of grammar and usage. Then, choose the most appropriate option.
- A. The touch of casanova in the word 'over' is what strikes me the most, I run about the pages, find that there is hardly any word in the language which has not linked itself with the word 'over'.
  - B. In the process, these words have gained new meanings, strong undertones, wide-ranging imports and throbbing vitality.
  - C. I am not overestimating the date-ability of this word and the time has come to play the word a tribute that is long overdue.
  - D. I find words like 'overlook' and 'overtake' themselves before me, hinting that I may spend ages without ever coming to know all the words which carry over the genetic strain of the word 'over'.
  - E. They wink and laugh and dance while making me admit that the word, 'over' has sent its tentacles deep into the very marrow of the language, has left, in its trail, new words, laden with its stamp, ever reminding mankind that one can never get over the feeling that 'over' is the word that matters.

- (a) A, C and E      (b) B, C and D      **(c) A, C and D**      (d) A, B and E

96. c Sentences B and E are correct.  
In sentence A, the preposition used for run should be 'through' instead of 'about'. 'Run through' means to read something quickly while 'run about' means to wander, stray.  
Sentence C is incorrect because the usual phrase is that one 'pays a tribute' and not 'play a tribute'. The only exception would be when the tribute is a music piece which is not the case in this sentence.  
In Sentence D, the phrase 'carry over' means to transfer or to persist to another time/situation and is inappropriate as per the sentence. The correct sentence should be "...carry the genetic strain..." Option (c) is the correct answer.

97. Given below are five sentences or parts of sentences that form a paragraph. Identify the sentence(s) or part(s) of sentences(s) that is/are *incorrect* in terms of grammar and usage. Then, choose the most appropriate option.
- India's Motor City of Chennai is an example of the stumbling blocks preventing exporters from exploiting rupee weakness.
  - The city is plagued by power cuts, so manufacturers rely at expensive onsite generation.
  - Chennai port is so congested that trucks often spend three days driving just 30 km from the factory district to the port.
  - A long-mooted expressway is delayed.
  - The boom during the last decade is not matched by increased infrastructure, so traders struggled to get their products to cargo ships on time.

(a) A and E

(b) A and C

(c) A, B and D

**(d) B and E**

97. d Sentences A, C and D are correct.  
 Sentence B is incorrect because the verb 'rely' is generally followed by the preposition 'on'. It would be incorrect to use 'at' instead.  
 Sentence E is incorrect because of tense inconsistency. The sentence begins in present tense (...last decade is not matched...) but ends in past tense (...traders struggled to get...). Thus, either the verb "struggle" should be in present tense or the first part of the sentence should be changed to past tense to make the sentence meaningful. The correct sentence, hence, should be "The boom during the last decade is not matched by increased infrastructure, so traders struggle to get their products to cargo ships on time." Thus, option (d) is the answer.

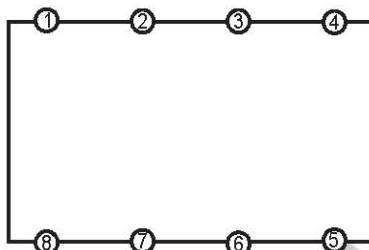
**Directions for questions 98 to 100:** Answer the questions on the basis of the information given below.

Eight persons are sitting at a rectangular table such that four persons are sitting along each of the longer sides of the table. Each person works in a different bank among PNB, SBI, HDFC, ICICI, CBI, BOB, BOI and Citi, and holds a different designation among IT Officer, Marketing Officer, Law Officer, Agricultural Officer, Rajbhasha Adhikari, Technical Officer, Finance Officer and HR Manager, not necessarily in the same order. It is also known that:

- The Finance Officer, who works in BOI, is sitting to the immediate left of the HR Manager.
  - The Marketing Officer, who works in SBI, is sitting opposite the Technical Officer.
  - The Agricultural Officer, who works in ICICI, is sitting diagonally opposite the Rajbhasha Adhikari, who is sitting to the immediate left of the Technical Officer.
  - The Law Officer, who works in HDFC, is sitting to the immediate left of the Marketing officer.
  - The persons who work in PNB and HDFC are sitting along the same side of the table.
  - The Rajbhasha Adhikari, who works in CBI, is sitting at one of the extreme ends in his row.
98. Who is sitting to the immediate right of the Finance Officer?  
 (a) Agricultural Officer (b) Technical Officer (c) Marketing Officer **(d) None of these**
99. For how many persons can we definitely determine the banks in which they work?  
 (a) 8 **(b) 6** (c) 4 (d) None of these
100. The person who is sitting opposite the Law Officer works in  
 (a) BOI (b) ICICI (c) BOB **(d) Cannot be determined**

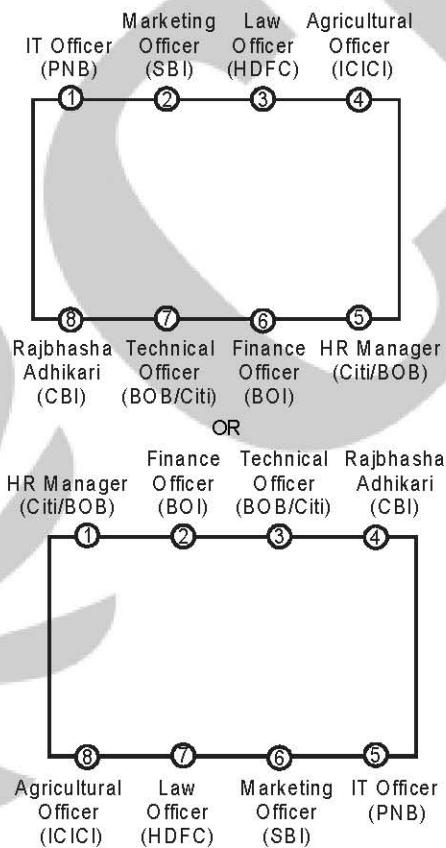
For questions 98 to 100:

Consider the following table with marked positions.



From statements (III) and (VI), Rajbhasa Adhikari is sitting on either chair 4 or chair 8. From statements (II), (IV) and (V), it can be deduced that the Law Officer, the Marketing Officer and the officer who works in PNB are sitting along the same side of the table. Now, from statements (I) and (III), it can be concluded that the Finance Officer, the HR Manager, the Technical Officer and the Rajbhasa Adhikari are sitting along the same side of the table. Therefore, IT Officer works in PNB.

Further analysis leads to the following arrangements.



98. d HR Manager is sitting to the immediate right of Finance officer.
99. b For six persons, we can definitely determine the banks in which they work.
100. a The person who is sitting opposite the Law Officer works in BOI.