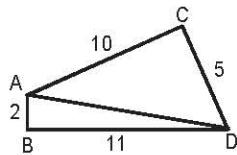


Proctored Mock CAT- 1 2014

Section I: QA&DI

On the basis of the given information, it can be observed that $11^2 + 2^2 = 10^2 + 5^2$. So the given quadrilateral can be divided into two right triangles as shown below.



$$\text{Hence, the required area} = \frac{1}{2} \times 10 \times 5 + \frac{1}{2} \times 11 \times 2 = 36 \text{ cm}^2.$$

2. d $a^a b^b$ is a multiple of 2000.

$a^a b^b = k \times 2000$, where k is a natural number

$$\Rightarrow a^a b^b = k \times 2^4 \times 5^3$$

From the above equation, it can be observed that 2^4 and 5^3 (or their multiples) must be contained in either a^a , b^b or some part in a^a and the rest in b^b . In order to minimise the value of $(a \times b)$, both 2^4 and 5^3 must be contained in either a^a or b^b . For the minimum value of $(a \times b)$,

$a = 1 \text{ & } b = 10$ or $a = 10 \text{ & } b = 1$

Hence, the minimum value of (a)

3. Study the following statements and select the correct answer from the given alternatives.

$$(1) \quad 5 > \sqrt{5} + \sqrt[3]{5} + \sqrt[7]{5}$$

$$(ii) \quad 8 > \sqrt{8} + \sqrt[3]{8} + \sqrt[4]{8}$$

- (a) Both the statements are correct
 - (b) Both the statements are incorrect
 - (c) Statement (i) is correct and statement (ii) is incorrect
 - (d) Statement (i) is incorrect and statement (ii) is correct**

3. d We know that

$$\sqrt{5} > \sqrt{4.84} (= 2.2)$$

$$\sqrt[3]{5} > \sqrt[3]{2.2} > \sqrt[3]{1.96} (= 1.4)$$

$$\sqrt[3]{5} > \sqrt[3]{5} > 1.4$$

$$\therefore \sqrt{5} + \sqrt[3]{5} + \sqrt[3]{5} > 2.2 + 1.4 + 1.4 (= 5)$$

$$\Rightarrow \sqrt{5} + \sqrt[3]{5} > \sqrt[3]{5} > 5$$

So, statement (i) is incorrect.

Similarly, $\sqrt{8} < \sqrt{9} (= 3)$

$$\sqrt[3]{8} = 2$$

$$\sqrt[3]{8} < \sqrt[3]{8} (= 2)$$

$$\therefore \sqrt{8} + \sqrt[3]{8} + \sqrt[3]{8} < 3 + 2 + 2 < 7 < 8$$

$$\Rightarrow \sqrt{8} + \sqrt[3]{8} + \sqrt[3]{8} < 8$$

So, statement (ii) is correct.

Hence, option (d) is the correct answer.

4. 'N' is a four-digit number in which each of the digits used appears at least two times. The number of different values that N can assume is

(a) 252

(b) 216

(c) 225

(d) 251

4. a There are two possible cases.

Case (i): When the number has exactly two distinct digits.

$$\text{The number of values that } N \text{ can assume when the digits used are non zero} = {}^9C_2 \times \frac{4!}{2!2!} = 216$$

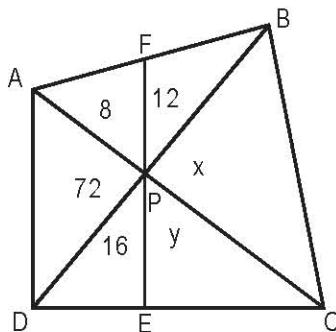
$$\text{The number of values that } N \text{ can assume when one of the two digits used is zero} = {}^9C_1 \times {}^3C_2 = 27$$

Case (ii): When all the digits used in the number are identical.

The number of values that N can assume = 9

Hence, the total number of distinct values that N can assume = $216 + 27 + 9 = 252$.

5. In the figure given below, quadrilateral ABCD is divided into six smaller triangles. The area (in cm²) of each of the smaller triangles is mentioned inside it. If DE : EC = 4 : 5, then find the value (in cm²) of x.



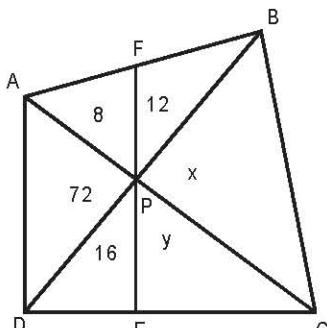
(a) 10

(b) 20

(c) 3.6

(d) None of these

5. a



In $\triangle DPC$, the two smaller triangles have the same altitude.

$$\therefore \frac{16}{y} = \frac{4}{5} \Rightarrow y = 20$$

In quadrilateral ABCD,

$$\text{Area of } \triangle APB \times \text{Area of } \triangle DPC = \text{Area of } \triangle APD \times \text{Area of } \triangle BPC$$

$$\Rightarrow 20 \times 36 = 72 \times x \Rightarrow x = 10$$

6. c As the product of digits is divisible by 7, one of its digit must be 7.
Let the other two digits be x and y.

1

$$x + y + 7 = \frac{1}{7}xy \times 7 \Rightarrow x + y + 7 = xy$$

$$\Rightarrow xy - x - y = 7$$

$$\Rightarrow xy - x - y + 1 = f + 1$$

$$\Rightarrow (x-1)(y-1) = 8 = 1 \times 8 = 2 \times 4$$

$$\Rightarrow x = 2 \text{ & } y = 9 \text{ or } x = 3 \text{ & } y = 5$$

Therefore, possible sets of digits used in the number are (2, 9).

Directions for questions 7 to 9: Answer the questions on the basis of the information given below.

The table given below shows the sales volume of five products A, B, C, D and E manufactured by a company named XUAC Pvt. Ltd. from February to July in the year 2013.

Month \ Product	February	March	April	May	June	July
A	6746	7813	8761	8093	9257	9809
B	4072	4239	6577	7081	7341	6958
C	4185	6164	6328	6961	6916	8011
D	2285	3015	3327	4239	6273	9036
E	3819	5648	5841	6179	7214	7645

$$7. c \quad \text{The percentage} = \frac{6164}{7813 + 4239 + 6164 + 3015 + 5648} \times 100 = 22.93.$$

8. Which product recorded the maximum percentage increase in its sales in any month, except February, over the previous month during the given period?

8. c From the data given in the table, it can be observed that the sales of B in April witnessed the maximum percentage increase among the five products during the given period and it was equal to $\frac{6577 - 4239}{4239} \times 100 = 55.15\%$.

9. In August 2013, the sales of D witnessed an increase of 25% over the previous month and the sales of E was the same as that of D. What was the percentage increase in the sales of E in August over the previous month?

- $$\therefore \text{The sales of E in August} = 11295$$

$$\text{Hence, the required percentage} = \frac{11295 - 7645}{7645} \times 100 = 47.74.$$

10. d Going by the options, 65 comes out to be the maximum value of N.

It can also be noted that for every value of N which is greater than 65 the number of multiples of 3 will be greater than that of 5 and 7.

11. Find the sum of the roots of the equation $x^{2013} + \left(\frac{1}{2} - x\right)^{2013} = 0$.

$$11. \text{ a} \quad x^{2013} + \left(\frac{1}{2} - x\right)^{2013} = 0$$

$$x^{2013} + (-1)^{2013} \left(x - \frac{1}{2} \right)^{2013} = 0$$

$$\Rightarrow x^{2013} + (-1)^{2013} \left[{}^{2013}C_0 x^{2013} + {}^{2013}C_1 x^{2012} \times \left(-\frac{1}{2}\right) + {}^{2013}C_2 x^{2011} \times \left(-\frac{1}{2}\right)^2 + \dots + \left(-\frac{1}{2}\right)^{2013} \right] = 0$$

$$\Rightarrow {}^{2013}C_1 x^{2012} \times \left(\frac{1}{2}\right) - {}^{2013}C_2 x^{2011} \times \left(\frac{1}{2}\right)^2 + \dots + \left(\frac{1}{2}\right)^{2013} = 0$$

$$\text{Hence, the sum of the roots} = \frac{-b}{a} = \frac{2013C_2 \times \left(\frac{1}{2}\right)^2}{2013C_1 \times \left(\frac{1}{2}\right)} = 503.$$

$$12. \text{ b} \quad 2^{2x} - 3^{2y} = 55$$

$$\Rightarrow (2^x)^2 - (3^y)^2 = 55$$

$$\Rightarrow (2^x - 3^y)(2^x + 3^y) = 1 \times 55 \text{ or } 5 \times 11$$

$$\Rightarrow 2^x - 3^y = 1 \text{ and } 2^x + 3^y = 55$$

$$\text{or } 2^x - 3^y = 5 \text{ and } 2^x + 3^y = 11$$

Case (i): $2^x + 3^y = 55$ and $2^x - 3^y = 1$

$$\Rightarrow 2^x = 28 \text{ and } 3^y = 27$$

This case is not acceptable as x will not be a natural number in this case.

Case (ii): $2^x + 3^y = 5$ and $2^x - 3^y = 11$

$$\Rightarrow 2^x = 8 \text{ and } 3^y = 3$$

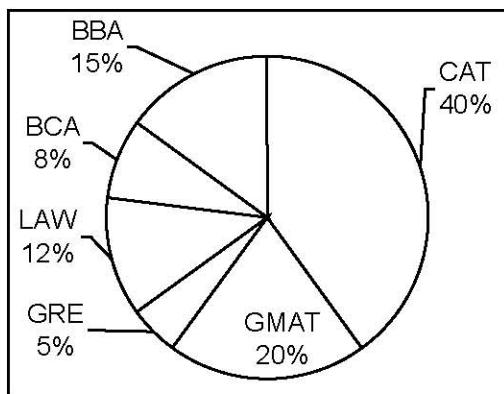
$$\Rightarrow x = 3 \text{ and } y = 1$$

Hence, the given equation has only one solution.

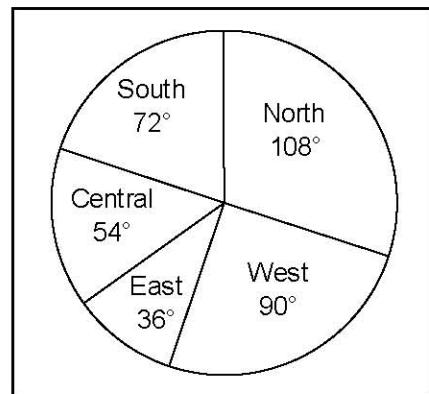
Directions for questions 13 to 15: Answer the questions on the basis of the information given below.

Pie-chart I shows the distribution of students across six different courses offered by an aptitude training institute named 'Customized Prep Educate' in the year 2013. Pie-chart II shows the region-wise distribution of the students enrolled with the institute in the same year.

Pie-chart I



Pie-chart II



13. In the institute, if none of the students who enrolled for CAT in 2013 was from North and Central regions, then at least what percentage of students from South region enrolled for CAT?
(a) 20 (b) 25 (c) 30 (d) 40

13. b In order to minimize the percentage of CAT students from South region, the percentage of CAT students from East and West regions must have been the maximum as none of the CAT students was from either North or Central region.

The percentage of CAT students was 40% and the total percentage of students with the institute from West and East regions put together was 35%. Thus, the percentage of CAT students from South region could not be less than 5% of the total number of students with the institute.

Hence, the required percentage = $\frac{5}{20} \times 100 = 25$.

14. a The total number of students = $\frac{12000}{12} \times 100 = 30000$

$$\text{The number of students from East region} = \frac{36}{100} \times 30000 = 3000$$

Hence, the required number = $\frac{50}{100} \times 3000 = 1500$.

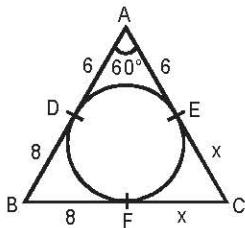
15. b From the given data, it can be observed that at least 3 regions were required to get 15% of the total students by taking 25% from each region.
Hence, the answer = $5 - 3 = 2$

16. Function $f(x)$ is defined for all natural numbers such that $f(x + y) = f(x \times y)$. If $f(1) = 2013$, then find the value of $f(2013)$.

16. c We have,
 $f(x + y) = f(x \cdot y)$
 $f(1) = 2013$
 $\therefore f(2) = f(1 + 1) = f(1 \times 1) = f(1) = 2013,$
 $f(3) = f(2 + 1) = f(2 \times 1) = f(2) = 2013$ and so on.
Hence, $f(2013) = 2013.$

17. The circle inscribed in triangle ABC, in which $\angle A = 60^\circ$, touches side AB at point D. If $AD = 6 \text{ cm}$ and $BD = 8 \text{ cm}$, then find the length (in cm) of AC.

17. a



Assume that the circle touches side BC at F and AC at E.

So, $AD = AE = 6$ and $BD = BF = 8$

Let $CE = x$ cm

Using cosine's rule,

$$\cos 60^\circ = \frac{(6+8)^2 + (6+x)^2 - (8+x)^2}{2 \times (6+8) \times (6+x)}$$

$$\Rightarrow \frac{1}{2} = \frac{(6+8)^2 + (6+x)^2 - (8+x)^2}{2 \times (6+8) \times (6+x)}$$

$$\Rightarrow 196 + 36 + x^2 + 12x - 64 - x^2 - 16x = 84 + 14x$$

$$\Rightarrow 168 - 4x = 84 + 14x$$

$$\Rightarrow x = 4.67$$

$$\therefore AC = 6 + 4.67 = 10.67 \text{ cm.}$$

18. How many of the first 1500 natural numbers are co-prime to 12?

(a) 300

(b) 500

(c) 600

(d) 750

18. b $12 = 2^2 \times 3$

Therefore, the numbers that are co-prime to 12 will neither be divisible by 2 nor 3.

Hence, the required number of numbers $= 1500 \times \left(1 - \frac{1}{2}\right) \times \left(1 - \frac{1}{3}\right) = 500$.

19. If a and b are two real numbers such that $a + b = 1$, then find the maximum possible value of the product of $(a^a b^b)$ and $(a^b b^a)$.

(a) 1

(b) $\frac{1}{2}$

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

(d) $\frac{1}{8}$

19. c $(a^a b^b) \times (a^b b^a) = a^{a+b} \times b^{a+b} = (ab)^{a+b} = a \times b$

Using AM \geq GM inequality,

$$\frac{a+b}{2} \geq \sqrt{ab} \Rightarrow \frac{1}{2} \geq \sqrt{ab} \Rightarrow \frac{1}{4} \geq ab \quad (\text{As } a+b=1)$$

Hence, the maximum value of 'ab' is $\frac{1}{4}$.

20. $\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$ are in Arithmetic Progression, where $a < b < c$. If $a = 20$ and c is divisible by b, then the number of values that ordered pair (b, c) can assume is

(a) 7

(b) 5

(c) 3

(d) 6

20. b Let $c = bk$, where k is natural number.

$\frac{1}{a}, \frac{1}{b}, \frac{1}{c}$ are in AP.

$$\therefore \frac{2}{b} = \frac{1}{a} + \frac{1}{c}$$

$$\Rightarrow \frac{2}{b} = \frac{1}{20} + \frac{1}{bk}$$

$$\Rightarrow \frac{2k - 1}{bk} = \frac{1}{20}$$

$$\Rightarrow k(40 - b) = 20$$

It is given that $a < b < c$.

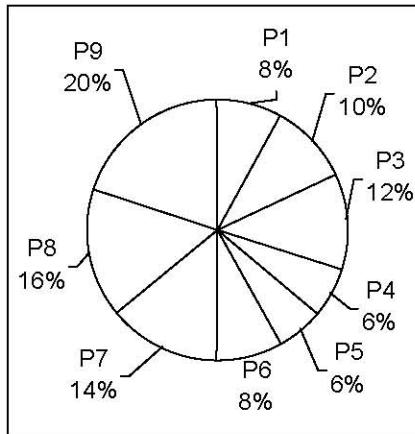
The following table gives possible sets of values of k and b .

k	b
2	30
4	35
5	36
10	38
20	39

Hence, the number of values that ordered pair (b, c) can assume is 5.

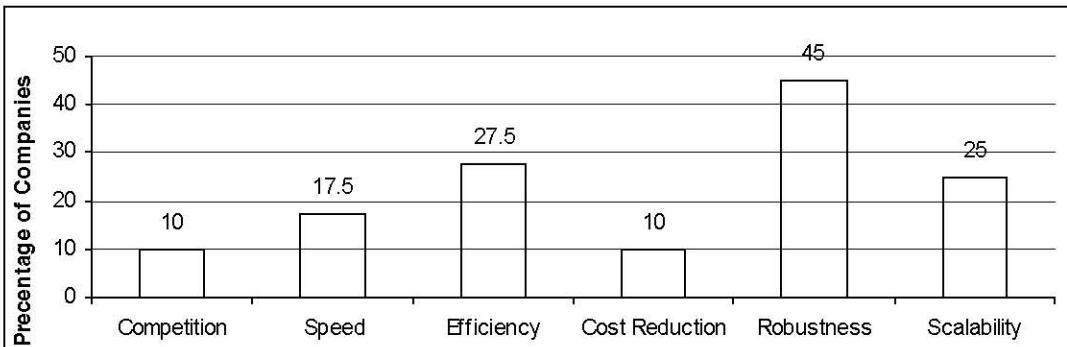
Directions for questions 21 to 23: Answer the questions on the basis of the information given below.

A survey was conducted among 1000 companies to gauge the prevalence of nine different packages of Enterprise Resource Planning (ERP) – P1, P2, P3, P4, P5, P6, P7, P8 and P9. The pie-chart given below shows the package-wise distribution of the 1000 companies. It is also known that each of the companies at the time of survey was using exactly one of the nine ERP packages.



The companies surveyed quoted one or more objectives out of the six – Scalability, Robustness, Cost

Reduction, Efficiency, Speed and Competition – for using the ERP packages. The bar graph given below shows the objective-wise distribution of the 1000 companies.



21. d The number of companies using P1 = 80

Let x% companies quoted all the six objectives

Therefore, percentage of companies who quoted 5 or less objectives = $(10 - x) + (17.5 - x) + (27.5 - x) + (10 - x) + (45 - x) + (25 - x) = 135 - 6x$.

$$\text{Also, } x + 135 - 6x \geq 100 \Rightarrow x \leq 7$$

Therefore, the maximum number of companies that could have quoted all the six objectives = $\frac{7}{100} \times 1000 = 70$

Hence, the maximum number of companies using P1 could have quoted all the six objectives = Min. (70, 80) = 70.

22. b The number of companies using either P2 or P4 = $\frac{(10 + 6)}{100} \times 1000 = 160$

The number of companies that quoted Cost Reduction as one of their objectives = $\frac{10}{100} \times 1000 = 100$

The number of companies using P8 quoted Cost Reduction as one of their objectives = 25% of 16% of 1000 = 40
Hence, the maximum number of companies using either P2 or P4 could have quoted Cost Reduction as one of their objectives = $100 - 40 = 60$

23. If all the companies using either P6 or P7 quoted the same set of objective(s) for using them, then which of the following could not be the quoted objective?

- (a) Scalability (b) Competition (c) Efficiency (d) Both (a) and (c)

23. b The percentage of companies using either P6 or P7 = $(14 + 8)\% = 22\%$

The objectives that were quoted by at least 22% of the companies were Efficiency, Robustness and Scalability. Thus, the objective(s) quoted by either P6 or P7 must have one or more out of Efficiency, Robustness and Scalability. Hence, Competition, along with Speed and Cost Reduction, could not be the quoted objective.

24. Each term, starting from the third term, of a sequence, which has 98 terms, is the sum of the two preceding terms. If the first two terms of the sequence are odd numbers, then what is the ratio of the number of odd valued terms to that of even valued terms?
 (a) 17 : 8 (b) 7 : 15 (c) **33 : 16** (d) 16 : 33

24. c The sequence in terms of nature of its elements is given below.

O, O, E, O, O, E, O, O, E, ..., up to 98 terms

Now, it can be observed that there is an even number after every two odd numbers.

As $98 = 3 \times 32 + 2$, the given sequence has 32 aforementioned cycles and two extra terms.

The number of odd valued terms = $2 \times 32 + 2 = 66$

The number of even valued terms = 32

Hence, the required ratio = $66 : 32 = 33 : 16$.

25. Ten-liter contents of a milk-water solution, which contains milk and water in the ratio 7 : 3, are removed and replaced with water to bring down the concentration of milk by 10 percentage points. The amount (in liters) of water that needs to be added to the resulting solution in order to reduce the concentration of milk to 50% is
 (a) 12 (b) 10 (c) 8 (d) **None of these**

25. d Let the volume of the original solution be 'x' liters.

$$\therefore \frac{60}{100} = \frac{70}{100} \left(1 - \frac{10}{x}\right) \Rightarrow x = 70$$

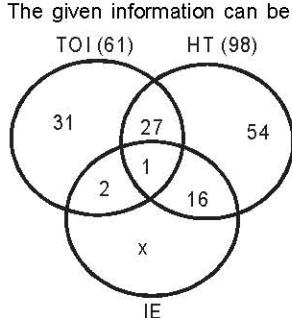
Amount of milk in resulting solution = 42 litres

Amount of water in resulting solution = 28 litres

Hence, the required amount of water = $42 - 28 = 14$ liters.

26. In a society of 280 families, a survey was conducted to gauge the readership of the three newspapers – The Times of India (TOI), The Hindustan Times (HT) and Indian Express (IE). It was found that sixty one families read TOI; ninety eight families read HT; twenty eight families read HT and TOI; fifty four families read only HT; three families read TOI and IE; eighty one families read HT but not IE; fifty eight families do not read any of the three newspapers. How many families in the society read only IE?
 (a) 61 (b) **91** (c) 59 (d) 88

26. b The given information can be depicted as shown below.



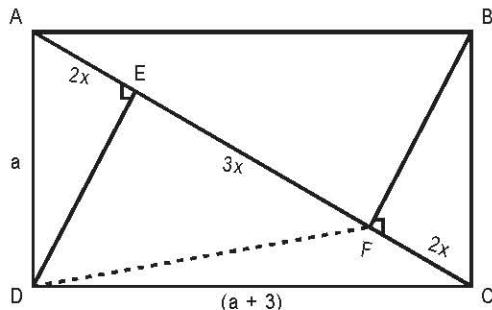
Let the number of families that read only IE be 'x'.

$$\therefore 61 + 54 + 16 + x = 280 - 58 = 222$$

$$\Rightarrow x = 91.$$

27. In rectangle ABCD, perpendiculars DE and BF are drawn on diagonal AC. The ratio of the area of $\triangle ADE$ to that of $\triangle EDF$ is 2 : 3. If the length of the rectangle is 3 cm more than its breadth, then what is its perimeter (in cm)?
- (a) $8 + 4\sqrt{10}$ (b) $20 + 4\sqrt{10}$ (c) $16 + 4\sqrt{10}$ (d) $14 + 4\sqrt{10}$

27. d Let the breadth of the rectangle be 'a' cm.



We have,

$$\frac{\text{Area of } \triangle ADE}{\text{Area of } \triangle EDF} = \frac{2}{3} \Rightarrow \frac{AE}{EF} = \frac{2}{3}$$

(Since the $\triangle ADE$ and $\triangle EDF$ are of the same height)

Also, $AE = CF$

Let $AE = 2x$ cm.

$\therefore FC = 2x$, $EF = 3x$ and $AC = 7x$.

In $\triangle CDA$ and $\triangle CED$, $\angle D = \angle E$ and $\angle C$ is the common angle. Therefore, $\triangle CDA$ and $\triangle CED$ are similar.

$$\therefore \frac{CD}{CE} = \frac{CA}{CD}$$

$$\Rightarrow \frac{(a+3)}{5x} = \frac{7x}{(a+3)} \Rightarrow (a+3)^2 = 35x^2 \quad \dots(i)$$

Similarly, $\triangle ADC \sim \triangle AED$.

$$\therefore \frac{AD}{AE} = \frac{AC}{AD}$$

$$\Rightarrow \frac{a}{2x} = \frac{7x}{a} \Rightarrow a^2 = 14x^2 \quad \dots(ii)$$

From (i) and (ii), we get,

$$\frac{(a+3)}{a} = \frac{\sqrt{5}}{\sqrt{2}}$$

$$\Rightarrow \frac{\sqrt{5}}{\sqrt{2}}a - a = 3$$

$$\Rightarrow a = \frac{3\sqrt{2}}{\sqrt{5} - \sqrt{2}} = \sqrt{2}(\sqrt{5} + \sqrt{2}) = 2 + \sqrt{10}$$

Hence, the perimeter = $2(a + 3 + a) = 2(7 + 2\sqrt{10}) = (14 + 4\sqrt{10})$ cm.

(a) 20

(b) 25

(c) 30

(d) Cannot be determined

28. a Let the cost price and marked price (in Rs.) of the cooker be 'C' and 'M' respectively.

$$\text{The SP for Zoheb} = \frac{80}{100}(M - 200)$$

$$\text{The SP for Karan} = \frac{80}{100}M - 200$$

Let the profit made by Zoheb be P.

∴ The loss incurred by Karan = P

$$\frac{80}{100}(M - 200) - C = P \quad \dots(i)$$

$$C - \left(\frac{80}{100}M - 200 \right) = P \quad \dots(ii)$$

Adding (i) and (ii), we get,

$$\therefore \frac{80}{100}(M - 200) - \left[\frac{80}{100}M - 200 \right] = 2P$$

$$\Rightarrow \frac{80}{100}M - 160 - \frac{80}{100}M + 200 = 2P \Rightarrow P = 20.$$

29. If the diagonals of a parallelogram are along the lines $x + 3y = 4$ and $6x - 2y = 7$, then the parallelogram must be a
 (a) Rectangle (b) Square (c) Cyclic quadrilateral (d) **Rhombus**

(a) Rectangle (b) Square (c) Cyclic quadrilateral (d) Rhombus

- $$29. \text{d} \quad \begin{aligned} x + 3y &= 4 && \dots(\text{i}) \\ 6x - 2y &= 7 && \dots(\text{ii}) \end{aligned}$$

$$\text{The slope of line (i)} = -\frac{1}{3}.$$

The slope of line (ii) = 3.

Since the product of the

Hence, the parallelogram must be a rhombus.

35. A certain number of taps are connected to a tank, the capacity of which is 7150 L. Each of the taps can discharge water at a rate of 120 L/hour. All the taps are opened simultaneously. At the end of the first hour, three taps are closed; at the end of the second hour, three more taps are closed; and the same process is repeated at the end of the third hour. If the tank gets filled completely in 3 hours 10 minutes, then the number of taps connected to the tank is

30. b Let the number of taps connected to the tank be 'x'.

$$\therefore 120x + 120(x-3) + 120(x-6) + 120 \times \frac{10}{60}(x-9) = 7100$$

$$\Rightarrow x = 22.$$

Section II: VA&LR

31. Five sentences are given below labelled 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. "He (Whatmore) has given me a lot of input and I, too, have a few things in my mind," Sohail said. "But I think you have to look at the comfort level of others too, and you can't simply do what you want to do."
 - B. Former international players Azhar Khan, Salim Jaffar and Farrukh Zaman will continue on the selection committee.
 - C. "Sohail's vision and experience will help build a strong team for the World Cup 2015," the PCB said in a statement.
 - D. Sohail said his main challenge would be to strengthen the numbers of backup players.
 - E. "We have to increase the pool of players and also improve the fitness of players," he said.

(a) CDAEB (b) ADEBC (c) BCDEA (d) BADEC

31. c DE forms a mandatory pair in the paragraph. Statement D states that the main challenge is to strengthen the numbers of backup players. Statement E substantiates this information by directly quoting Sohail. This helps rule out option (a). Since DE has been established as a mandatory pair, it is logical that statement A follows E as both are direct quotes from Sohail. Statement A also helps to close the sequence by presenting Sohail's general view of the work that has to be done for the World Cup. This helps to rule out options (b) and (d) and hence option (c) is the answer.

32. Five sentences are given below labelled 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. The current proviso to Article 3 was introduced by the Constitution (Fifth Amendment) Act, 1955.
 - B. This was a time-consuming process, allowing States to vacillate in responding, thereby frustrating the efforts of the government of India.
 - C. Before this amendment, the President could only introduce an Amendment Bill in Parliament after referring it to the State legislatures concerned for their views.
 - D. However, to treat the State's views as carrying merely formal value, as has been widely suggested, would render the constitutional process of consultation entirely nugatory in a matter of national importance.
 - E. This amendment was necessary to lay the groundwork for the smooth passage of the States' Reorganisation Commission Report that recommended a radical redrawing of State boundaries and creation of new States.

32. b AC forms a mandatory pair. Statement A refers to a provision (an amendment) that was made in Article 3. Statement C refers to 'this' amendment and states that, before this amendment was made, the President could only introduce an Amendment Bill if he first referred it to State legislatures for their views. Statement B comments on this procedure and explains that it was time-consuming. Hence, ACB form a direct link. This helps rule out options (a) and (c). Statement E continues to comment on the amendment that was made to Article 3 by explaining why it was necessary. With ACBE as a sequence, option (d) can also be ruled out. Option (b) is the answer.

33. 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.

A better picture of the women's world of work _____ if both principal and _____ work is counted and added up.

(a) emanates, nonessential
(c) materialises, trivial

(b) develops, inconsequential
(d) emerges, subsidiary

33. d The sentence indicates that a better picture appears if principal and another category of work are added up. 'Emanate' is used with reference to intangible things, such as light or ideas, spreading from a source. 'Emerge' indicates to come forth. The sentence here indicates that a better picture/idea comes forth or emerges. To 'materialise' is to bring into perceptible existence, become actual or real, be realized or carried out. This meaning does not fit in with the context of the sentence. To 'develop' is to cause to grow or expand, to elaborate or expand in detail, to bring into being. Option (b), however, can be ruled out on the basis of the second blank. The second blank must be complementary to principal, which, in the context, means first or highest in rank, importance, or value. Hence, the second blank should indicate 'of secondary nature'. Subsidiary, in option (d), is the correct answer as it means supplementary, subordinate or secondary. Option (d) is the answer. Nonessential, inconsequential and trivial are incorrect because they indicate something that is not necessary or lacking in importance. These words do not fit in the context and, hence, options (a), (b) and (c) are incorrect.

34. 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*.

Piece

- (a) His impatience soon got the better of him and he took the transistor into pieces in an effort to repair it himself.
(b) She loves picking up different objects on her travels and, in fact, every curio in her house is a conversation piece.
(c) The consultancy fee charged by the interior designer was all of a piece with the final result.
(d) The much-awaited holiday blockbuster was picked to pieces by all the critics.

34. a The correct idiomatic phrase is to take something to pieces, which means to disassemble something. A conversation piece is a strange or interesting object that people talk about. To be (all) of a piece is used in a situation where one is suitable or right for that thing. To pick someone or something to pieces is to criticize someone or something harshly or unduly. Hence, option (a) is the correct answer.

Directions for questions 35 to 37: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

All of this, of course, flies in the face of the classic stereotype of gamers as attention deficit-crazed stimulus junkies, easily distracted by flashy graphics and on-screen carnage. Instead, successful gamers must focus, have patience, develop a willingness to delay gratification, and prioritize scarce resources. In other words, they think.

The video game Tetris, among the earliest games to launch the industry, involves falling tile-like tetrominoes,¹ that a player must quickly manoeuvre so that they fit into the space at the bottom of the screen. In the early 1990s, Richard Haier, a professor of psychology at the University of California at Irvine, tracked cerebral glucose metabolic rates in the brains of Tetris players using positron-emission tomography² (PET) scanners.

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1. **tetrominoes (n)** : a tetromino is a geometric shape composed of four squares, connected orthogonally
2. **tomography (n)** : a technique for displaying a representation of a cross section through a human body or other solid object using X-rays or ultrasound
-

The glucose rates show how much energy the brain is consuming, and thus serve as a rough estimate of how much work the brain is doing. Haier determined the glucose levels of novice₃ Tetris players as their brains labored to usher the falling blocks into correct locations. Then, he took their levels again after a month of regular play. Even though the test subjects had improved their game performance by a factor of seven, Haier found that their glucose levels had decreased. It appeared that the escalating difficulty of the game trained the test subjects to manipulate the Tetris blocks mentally with such skill that they barely broke a cognitive₄ sweat completing levels that would have utterly confounded₅ them a month earlier.

Nearly a decade after Haier's study, Gee hit upon an explanation. He found that even escapist fantasy games are embedded with one of the core principles of learning—students prosper when the subject matter challenges them right at the edge of their abilities. Make the lessons too difficult and the students get frustrated. Make them too easy and they get bored. Cognitive psychologists call this the "regime of competence" principle. Gee's insight was to recognize that the principle is central to video games: As players progress, puzzles become more complex, enemies swifter and more numerous, and underlying patterns more subtle. Most games don't allow progress until you've reached a certain level of expertise.

35. Which of the following options best summarises the main idea of the passage?
- (a) A wave of research has helped understand how video games affect the cognitive ability of players.
 - (b) Due to the challenges that video games present, they exercise the mind the way physical activity exercises the body.
 - (c) Games are good for the mind, and are not just about improving hand-eye coordination but also about improving the health of the player.
 - (d) Games may help improve cognition and may ensure that players are constantly engaged and challenged.**
35. d The passage discusses the positive effects of gaming and how it affects the cognitive abilities of the player. The first paragraph refutes the charges that have been made against gaming. The second paragraph goes onto discuss the findings of research done on the effects that a specific game had on its players. It also mentions the fact that the specific game, Tetris, was built to challenge players at each level. Also, the cognitive ability of players improved as they played the game more and more. The last paragraph indicates that all games may follow a core principle of learning and challenge players at the edge of their abilities. Option (d) fits in with this. Option (a) is incorrect because the passage makes no reference to 'a wave of research'. There is reference to only one research that was conducted in the early 1990s. Option (b) can be ruled out because the passage only indicates that gaming exercises the mind. It does not compare the benefits (of gaming) on the mind with those (of physical activity) on the body. Option (c) is incorrect because it asserts that all games improve the health of the player. This is a generalisation that is not indicated in the passage. The findings of the research, mentioned in the passage, can only indicate that playing the game Tetris had a positive effect on the glucose levels of players. But this need not be true for all games.
36. Which of the following options best explains the 'regime of competence' principle?
- (a) The principle ensures that players don't progress in a game until they have reached a specific expertise level.
 - (b) The principle ensures that the game challenges, and subsequently improves, the ability of the player to the extent that they don't get bored or frustrated.**
 - (c) The principle ensures that a player's ability is constantly challenged and that he/she has improved cognition with each successive level.
 - (d) The principle ensures that the players constantly learn and improve their competence in areas such as cognition, patience and focus.

3.	novice (n)	:	a person new to and inexperienced in a job or situation
4.	cognitive (n)	:	relating to cognition (mental action or process of acquiring knowledge and understanding through thought, experience, and the senses)
5.	confound (n)	:	surprise or confuse

36. b The 'regime of competence' principle is explained in the last paragraph. Refer specifically to the third and fourth sentences of the paragraph. The author states that even fantasy games are embedded with a core principle of learning i.e. to constantly challenge the student at the edge of his abilities. This indicates that each level of a game (referred to as lessons in the paragraph) is built in such a manner that it is neither easy enough to bore the player nor difficult enough to frustrate them. Option (b) best explains this principle. Option (a) can be ruled out because it only restates the last sentence of the passage. It does not help to explain the principle. Option (c) is incomplete and can hence be ruled out. It states that a player's ability is constantly challenged but it fails to state that the games are built in a manner to ensure they are neither too easy nor too difficult. Option (d) incorrectly links the positive results of gaming with the principle itself. The 'regime of competence' allows for improvement in the abilities of the player while also ensuring that each level/lesson is not too easy or too difficult to tackle.
37. If the information in the passage is deemed to be true, then, which of the following options would also stand true?
- (a) **On standard tests that measure visual information-processing, seasoned gamers are likely to outperform novice gamers.**
- (b) Due to the challenging nature of video games, players are usually better at multi-tasking than non-players.
- (c) Visually intelligent people are always more likely to be attracted to video games in the first place.
- (d) Video games can help develop higher-order thinking skills, such as strategic thinking and interpretive analysis, that apply to real-world situations.
37. a The first paragraph lists some of the benefits that accrue to gamers – they must focus, have patience and prioritise scarce resources. The author links these benefits with the development of cognitive skills in gamers. The second paragraph describes a game and the development in its players as they moved on to successive levels. The first line of the second paragraph indicates that players have to process information quickly and as levels increased their information processing (cognitive) ability also increased. Since, the passage is about video games, the seasoned gamers would be better at visual information processing than novice gamers. Option (a) is the answer. Option (b) can be ruled out because, while it can be inferred that gamers multi-task while playing games, one cannot infer that non-gamers are not as good at multi-tasking in other facets of life. Option (c) is incorrect because the passage gives no information regarding who is more or less attracted to video games. Option (d) can be ruled out because the passage never makes a reference to how gamers benefit (from playing games) in real-life situations.

Directions for questions 38 to 40: Answer the questions on the basis of the information given below.

A group of twelve friends, comprising eight males, viz. Ajay, Chirag, Vinay, Vijay, Malay, Sagar, Vibhor and Sujay, and four females, viz. Reshma, Rita, Neha and Riya, went for a movie named 'KhoyeeYaadie'. The group had three married couples. They went for the movie in three cars, belonging one to each Ajay, Vijay and Reshma. The cars left from the same place between 9:00 and 9:30 PM such that no two car left the place at the same time. It is also known that:

- (i) Not more than five persons went in any of the cars.
- (ii) The number of persons that went in each car was distinct. The number of couples that went in each car was also distinct.
- (iii) The owner of each of the cars went in his/her own car.
- (iv) Both the members of a couple went in the same car.
- (v) Sujay and Rita, who went in the same car, did not go with Malay and Vinay, who went in two different cars.
- (vi) Neha and Vinay did not go in the same car.
- (vii) Chirag went in the car that did not have any married couple.
- (viii) Riya went in the car that had four persons in it.

For questions 38 to 40: From statements (i) and (ii), it can be deduced that the number of persons in the cars must have been 3, 4 and 5; the number of couples in the cars must have been 0, 1 and 2. From statements (v) and (xii), it can be concluded that Sujay, Rita and Sagar went in the same car. From statements (v) and (vi), it can be deduced that Neha went with Malay. Now, using statements (ix) and (x), it can be deduced that Ajay, Vinay and Chirag went in the same car. Further analysis leads to the following tables.

Departure		
First Car	Second Car	Third Car
Neha - Vijay	Ajay	Rita - Sagar
Malay	Vinay	Sujay - Reshma
Riya	Chirag	Vibhor

Departure		
First Car	Second Car	Third Car
Neha - Vijay	Ajay	Rita - Sagar
Malay	Vinay	Reshma - Vibhor
Riya	Chirag	Sujay

Departure		
First Car	Second Car	Third Car
Neha - Vijay	Ajay	Rita - Sagar
Malay - Riya	Vinay	Reshma
	Chirag	Vibhor
		Sujay

Pairs in the tables represent couples.

38. d From the above tables, Riya's marital status cannot be confirmed. Hence, option (d) is the correct answer.

39. c Reshma went in the car that was last to leave the venue.

40. d Neha and Vijay definitely represents a pair of couple.

41. Four sentences are given below labelled (a), (b), (c) and (d). Of these, three statements 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) He quit WWF in 1996 and embarked on the rice route.

(b) The rice man, that Deb is today, grew from a startling statistic he read in 1995: Since it started in 1965, the Green Revolution ruined 90 per cent of local rice varieties in the country.

- (c) Hundreds of heirloom₆ varieties are dying every year because a seed dies if it is left unsown for two years.
- (d) Deb, who then worked with World Wildlife Fund, realised that huge sums were spent on saving tigers but nothing to salvage rice varieties.
41. c Statements (d) and (a) form a mandatory pair. Statement (d) refers to a realisation that Deb had when he was working with WWF. Statement (a) refers to the result of that realisation – he quit the WWF in 1996. Statement (b) has to come before statement (d) because it states the fact (the Green Revolution ruined 90 per cent of local rice varieties) due to which Deb embarked on the rice route (mentioned in statement (a)). The correct sequence, therefore, will be bda. Statement (c) refers to the varieties of seed that are dying every year without specifying if this pertains to rice varieties. Also, statement (c) uses the present tense while statements (b), (d) and (a) use the past tense. Option (c) is, therefore, the correct answer.
42. 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.
- In the olden days, *khap* panchayats were more inclusive and *Sarvkhaps* comprised people of all castes and communities. Today, with their clout, diminished to the realm of social traditions, marriage practices and customs, *khap* panchayats represent the dominant Jat community in Haryana and parts of Uttar Pradesh and Rajasthan. They have become undemocratic, oppressive and in conflict with the law. But because Jats comprise almost 25 per cent of the population in Haryana, political parties are indulgent towards them. _____
- (a) The Jat community has, in recent times, opposed signs of change and progress in society and has been unmindful of legal action.
- (b) But the Supreme Court has declared these bodies illegal and unconstitutional.
- (c) **The AAP — which aims to form a government in Haryana later this year — it turns out is no different from the other parties in this respect.**
- (d) Activists in Haryana say that the opposition to same *gotra* or inter caste marriages by *khaps* is actually aimed at preventing the economic empowerment of girls.
42. c The paragraph starts by speaking of the inclusive nature of *khaps* in the olden days. The next few sentences discuss the contrast in *khaps* in present times and indicate that it is made up of fewer communities. The particular membership of the *khaps* also has an implication for political parties that, as a result, take a softer stand on the *khaps*. The blank should ideally substantiate this claim, made in the last sentence. Option (c) does so by bringing in the example of the AAP (a political party) and indicating that, like other political parties, it also takes a soft stand on *khap* panchayats. This option logically completes the point the author makes in the penultimate sentence. Option (a) only relates to the third sentence of the paragraph but it does not relate to *khaps* or the political indulgence that the *khaps* face. The main subject of the paragraph is the *khaps* and not the Jat community. Option (b) is incorrect because it presents a contrast with the penultimate sentence. Moreover, the penultimate sentence already begins with a contrasting word ‘but’, and so the next sentence should not, ideally, begin with ‘but’. Also, the author does not indicate that he will change track in the last sentence. Further, it is not clear which bodies are being referred to in option (b) – the *khaps* or the political parties or the Jats. Option (d) brings in the views of activists in Haryana. However, this group has not been referred to in the rest of the paragraph and hence, it cannot logically be placed in the last sentence.

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6. **heirloom (n)** : an old type of plant that is still available because individual people have continued to grow it for many years
7. **clout (n)** : influence or power, especially in politics or business
-

43. 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.

While the concerns expressed by well-meaning non-governmental organisations may be valid in principle, they should weigh the huge practical gains to be made from seeing through this Bill, rather than waiting for eternity for the perfect piece of legislation. Parliament could consider incorporating a provision in the new law, mandating that revenues from the levy on corporate social responsibility be channelled to promote employment for the disabled. The disabled are said to constitute the single largest minority in society, as per the World Health Organization and the World Bank report of 2011.

- (a) Legal protections would go a long way to promote their full participation in society as equal members.**

(b) The issue of disabilities has seldom in the past been regarded as politically divisive, and the Bill stands a fair chance of mustering the support of parties across the political spectrum.

(c) As many as 19 impairments are sought to be accorded legal protection, as opposed to seven under the 1995 Persons with Disabilities Act.

(d) Members of both Houses should demonstrate a strong sense of purpose, urgency and sensitivity to make a new law a reality.

43. a The paragraph presents arguments to support the passing of a particular Bill related to the disabled. The author, hence, feels that concerns related to the Bill, even if valid, should not hinder its progress. He himself gives a suggestion, in the second sentence, to address one of these concerns. In the penultimate sentence, the author states that the disabled are the single largest minority in society, adding to his previous argument that expediting this Bill will be beneficial. The author takes an argumentative approach in the paragraph and favours a speedy process to see the Bill through. Option (a) concludes the arguments made in the paragraph and supports the point that the author makes in favour of passing the Bill. Option (b) states that the Bill should muster support from the different parties. However, this does not logically fit in the paragraph because the author does not at all refer to the support of or opposition from political parties. Option (c) talks about the details of the bill which do not relate to the penultimate sentence of the paragraph. Option (d) is related to the paragraph but should come in a few lines after the last sentence (perhaps towards the end of the article that this paragraph is a part of). It does not have any link with the penultimate sentence.

44. 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. An indispensable feature of art is its ability to convey information with an evaluative manner.

B. Art is a combination of man's cognitive and evaluative attitudes to reality, recorded in words, colours, plastic forms or melodically arranged sounds.

C. Like philosophy, art also has a profoundly communicative function.

D. Through it people communicate to one another, one's feelings and one's most intimate, infinitely varied and poignant thoughts.

E. A common feature of art and philosophy are the wealth they both contain of cognitive, moral and social substance.

(A) A, B and C (B) D, E and F (C) A, C and E (D) A, B and E

8 divisive (adj.) : tending to cause disagreement or hostility between people

44. d Sentence A is incorrect because information is conveyed 'in' a particular manner. The correction will be "...ability to convey information in". Sentences B and C are correct in terms of grammar and usage. Sentence D is incorrect because the subject 'people' should take on the plural possessive pronoun 'their' and not the singular pronoun 'one'. The correct form will be "Through it people communicate to one another their feelings and their most intimate, infinitely varied and poignant thoughts." Sentence E is incorrect because of a subject-verb disagreement. The singular verb 'is' should be used with the singular subject 'a common feature'. The correct form will be "A common feature of art and philosophy is". The correct answer is option (d).

Directions for questions 45 to 48: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

The reasons for this caution are obvious. First, as of now, every significant country/region of the world is either still in the midst of stagnation or growth deceleration. The 'recovery' is largely because of a minor upturn from still lower levels in a bent graph. Hope, therefore, currently rests on predictions. But, as the *Financial Times* recently noted, "For the past four years, analysts have predicted an imminent, acceleration in the US economy, and got it wrong. The mediocre record is growth of 2.5 per cent in 2010, 1.8 per cent in 2011, 2.8 per cent in 2012 and something around 2 per cent in 2013."

The second is that interest rates in Japan, the US and the Eurozone are either near zero or extremely low. This implies that monetary policy to stimulate growth, in the form of a reduction in interest rates, has run its course there without much impact. On the other hand, the space for fiscal activism is seen as restricted. Getting a recovery going is, therefore, even more difficult.

Finally, in countries like China and India, besides other emerging markets, the growth slowdown is accompanied by a rise in inflation rates. That makes addressing the slowdown through demand stimulation that much more difficult. India's central bank has just "shocked" markets by raising the policy repo rate by 25 basis points to 8 per cent. This, the third increase in six months, was a declaration that fighting inflation must take precedence over stimulating growth.

Though RBI governor Raghuram Rajan has explained the policy in terms of domestic compulsions, especially the high retail inflation rate, the evidence is clear that across emerging markets central banks are under pressure to raise interest rates, despite slowdown in growth due to external reasons. The principal reason is that the 'taper₁₀' or gradual reduction in the Federal Reserve's bond purchase policy is expected to push up interest rates in the developed countries. This is forcing emerging markets to maintain high and rising interest rates in the hope that they can withstand the hit from what Brazil's central bank governor, Alexandre Tombini, has termed the "vacuum cleaner"— high developed country interest rates that would suck out capital from emerging markets.

Evidence of that likely hit is not lacking. In the week ending January 24 and the week that followed, emerging country stock indices₁₁ fell sharply and currencies depreciated because of capital flight, necessitating an emergency response by Argentina and Turkey to stem the fall of the peso and the lira, respectively.

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9. **imminent (adj)** : about to happen
10. **taper (v)** : diminish
11. **indices (n)** : plural form of index
-

45. Which of the following options can be inferred from the first paragraph?
- (a) **There is hope of economic recovery due to predictions rather than due to actual evidence.**
(b) The current prediction of a recovery in the economy will soon prove to be wrong just as the many predictions made before this.
(c) There is danger of another downturn lurking in the future and the current hopes of a recovery are practically baseless.
(d) A spate of recent economic changes can be held responsible for the optimism that some economists have towards future economic progress.
45. a The first paragraph indicates that every significant country/region is still facing either stagnation or slow pace of growth. The present levels of growth are still low. The author categorically states that hope currently rests on predictions of a recovery. Option (a) can thus be inferred from the passage. Option (b) is incorrect because past predictions may have been proved wrong, but the author does not present an argument that this will be the case with the current prediction. He does indicate that the hope of a recovery is based on predictions and not on solid evidence. But this again does not provide any basis to assume that the present prediction will be wrong. Option (c) can be ruled out because the paragraph does not hint at any danger of a future downturn. Option (d) goes beyond the scope of the paragraph because it refers to a spate of recent economic changes that find no reference in the paragraph.
46. With reference to rising inflation rates, which of the following options are true as per the passage?
- (a) With the increase in the rate of inflation, encouraging spending among consumers becomes much more critical for India.
(b) **By increasing the repo rate, India's central bank hopes to curb demand and hence help reduce inflation.**
(c) By raising the repo rate, the central bank hopes to take away enough money to encourage investment in non-monetary capital projects.
(d) With its economic policy, India can be seen as a country that has traditionally gone against the grain and found its own foothold.
46. b Refer to the third paragraph. It states that in an emerging country like India, growth slowdown comes with rising inflation rates. The author goes on to state that it is difficult to address growth slowdown through demand stimulation when there is growing inflation. The last two sentences of the paragraph indicate that increasing the policy repo rate can help fight inflation. Option (b) can thus be inferred. Option (a) is incorrect because the passage clearly indicates that the official policy in India is to discourage spending and focus on curbing the inflation rate. Hence, encouraging spending is definitely not critical or vital. Option (c) does not help relate to rising inflation rates, which is the central theme of the paragraph and the question. Option (d) is incorrect because it comments on India's economic policy in general (which is not mentioned anywhere in the passage) and not on the stand that the country has taken to curb inflation.
47. The tone of the passage can best be described as
(a) disdainful₁₂ (b) laudatory₁₃ (c) argumentative (d) sympathetic

12. **disdainful** (adj) : showing contempt or lack of respect
13. **laudatory** (adj) : expressing praise and commendation

47. c The author starts the passage by presenting reasons for a 'cautionary perspective' on the predicted 'recovery'. The second and third paragraphs also provide reasons for this perspective while also presenting data and facts. The third paragraph also provides a reason as to why emerging markets like China and India would find it difficult to address the slowdown in growth. The last two paragraphs discuss why other emerging economies are also raising interest rates, indicating that there are other factors (like inflation and other external reasons) that take precedence over stimulating growth. The author follows an argumentative approach by presenting his point of view and then providing justification to support it. Option (c) is the right answer. Option (a) is incorrect because the author does not criticise or look down upon the approach/policy of any particular government or region. Similarly, option (b) is incorrect because the author refrains from praising any particular country or approach. Option (d) is incorrect because the author does not sympathise with the emerging countries or with the dilemma that they face. Nor does he sympathise with the problems that all significant countries may face due to stagnation or growth deceleration.

48. Which of the following would best help explain the external reasons due to which the central banks of emerging markets have increased interest rates?

 - (a) With the Federal Reserve's bond purchase policy, emerging markets are being arm twisted into raising interest rates to attract capital.
 - (b) With the increase in interest rates in developed countries, emerging markets are forced to keep up.
 - (c) When the interest rates rise, the rate of inflation will also be affected and hence emerging markets will need to build their own capital reserves.
 - (d) The change in the Federal Reserve's bond purchase policy will lead to the movement of capital, from emerging markets to developed countries.**

48. d The last two paragraphs of the passage imply that, with the impending change in the Federal Reserve's bond purchase policy, there will be an increase in interest rates in developed markets. This is forcing emerging markets to ensure that they maintain high and increasing interest rates so that capital from these markets does not move towards developed countries. One can thus infer that rising interest rates attract capital. Since the movement of capital to developed countries will take place due to the change in the Federal Reserve's bond purchase policy, option (d) is the answer as it provides an explanation as to why emerging markets have to take measures to retain capital. Option (a) can be ruled out because it states that emerging markets are being arm twisted into raising interest rates. However, the penultimate paragraph makes no reference to whether the Federal Reserve or the developed countries are deliberately causing an increase in interest rates. Option (b) provides partial information and does not help explain the actual cause of increasing interest rates in emerging markets. Option (c) is incorrect because the passage does not link the rise in the inflation rates with the rise in interest rates. It is the rise in policy repo rate that is linked with the control of inflation.

Directions for questions 49 to 51: Answer the questions on the basis of the information given below.

Five friends – F1, F2, F3, F4 and F5 – work in five different companies – C1, C2, C3, C4 and C5 – not necessarily in the same order. The present annual salary (in Rs) of each of them is a different amount among 7, 8, 9, 11, and 13 lakhs. It is also known that:

For questions 49 to 51: From statement (iii), it can be deduced that the salary of F3 is 11 lakhs and that of F1 and F4 are 7 and 13 lakhs, not necessarily in that order. From statement (ii), the salary of the person who works in C4 is 9 lakhs.

The final table is shown below.

Friend	Salary	Company
F1	13 or 7	C5 or C3 or C2
F2	8	C1
F3	11	C5 or C3 or C2
F4	7 or 13	C3 or C2
F5	9	C4

49. d If F4 works in C2, then F1 and F3 must be working in C3 and C5, not necessarily in that order. Since salary of F1 and F3 cannot be determined uniquely, their average salary cannot be computed.

50. d F5 works in C4.

51. a The salary of F3 is 11 lakhs.

52. Four sentences are given below labelled (a), (b), (c) and (d). Of these, three statements 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) There are 12 Lok Sabha seats at stake in the vanniyar belt comprising the northern and western belt of Tamil Nadu.

(b) Ramadoss hopes to emerge from political oblivion by selling the idea that he is the protector of vanniyar honour.

(c) Ramadoss and his son – and former Union minister Anbumani, projected by the party as the state's future CM – are not averse to using the caste card to woo voters away from the DMDK, the other claimant to seats in the agrarian belt in northern Tamil Nadu.

(d) **The decade-long peace was shattered last year soon after the PMK's disastrous showing in the 2011 assembly elections.**

52. d Statement (a) mentions the number of seats in the Lok Sabha that are dominated by the vanniyars. Statement (c) makes a definite reference to these seats in the northern belt of Tamil Nadu. Statement (b) is more specific by indicating how Ramadoss plans to use the caste card (referred to in statement c). Hence, the correct sequence is ACB. Statement (d) brings in a negative tone (all the other statements have an objective tone – they simply state facts). Further, statement (d) uses the past tense and hence, does not fit in with the discussion in statements (a), (b) and (c). Also, statement (d) refers to the breakdown of a decade-long situation because of the disastrous results the PMK faced in the 2011 assembly elections whereas the other three statements all refer to the future election strategy of Ramadoss and his son. The other three statements do not refer to PMK at all.

53. 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.

That is why the leading lights of organisations like the Shiksha Bachao Andolan are affiliated to the RSS, which promotes a straight and narrow nationalist path for Hinduism. This view is gaining adherents, and not necessarily from the loony¹⁴ fringe. Dinanath Batra, the convenor¹⁵ of the Andolan and the first name on the petition against Penguin India, is a career teacher who once won a national teaching award. His comrade, OP Gupta, is a former Indian ambassador to, among other countries, Tanzania, Estonia, Tunisia and the Cayman Islands.

- (a) They prefer a Hinduism that fits into an austere₁₆, monotheistic₁₇ slot that is convenient to modern sloganeering and politics.
 - (b) The core of their arguments against Doniger revolves around a “Christian conspiracy”.
 - (c) Too many Hindus are becoming familiar with and supportive of Hinduism’s emerging interpretation – the make-no-compromises approach.
 - (d) These gentlemen – and their arguments – certainly cannot be called crazy.**

(d) These gentlemen – and their arguments – certainly cannot be called crazy.

53. d The paragraph introduces organisations like the Andolan and mentions that, increasingly, even those who are not crazy agree with the views of these organizations. People like Batra and Gupta are mentioned as examples of this. Option (d) provides the inference that can be drawn from these arguments and, thus, will follow the given paragraph. Option (a) does not comment on or explain why the two individuals have affiliations with the Andolan. Option (b) brings in Doniger for the first time and relates to arguments against this person. This goes beyond the scope of the paragraph. Option (c) only mentions that the new approach to Hinduism is strict and non-flexible. However, it does not comment on the logic of this approach (related to the main theme of the paragraph). Option (d) is thus the right answer.

54. 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. Yet, so palpable is the chemistry among the lead pair that all the inconsistencies seem secondary in comparison.
 - B. From their first meeting, there is an instant connect.
 - C. Later, as their friendship blossoms in the run-up to his wedding, the director brings in two scenes that wrench the heart.
 - D. Their bond is electric with empathy.
 - E. Such chemistry is possible only when good acting, writing and great directing come together.

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

54. a Sentence A has a preposition error. One always refers to the chemistry 'between' two people and not 'among' two people. The correction is "...is the chemistry between the lead pair..." Sentences B and D are grammatically correct. Sentence C is incorrect because it brings in the pronoun 'his' to refer to one person in the lead pair. However, there is ambiguity in this reference as there is no specific reference made prior to the use of this pronoun. The lead pair could be of the feminine gender and the sentence should be gender neutral. The correction will be "Later, as their friendship blossoms in the run-up to the first lead's (or the second lead's) wedding..." Sentence E is incorrect because of an error in parallelism. The sentence mentions three factors for good chemistry – good acting, writing, and great directing. While the first and the third factors are nouns, the third factor moves away from parallel construction because it is a verb. The correction would be "...good acting, writing and direction..." The correct answer is option (a).

14. loony (adj) : mad or silly

15. convenor (n) : a person whose job it is to call people together for meetings of a committee

16. austere (adj) : severe or strict in manner or attitude

17. monotheistic (adj) : believing that there is only one god

Directions for questions 55 to 57: Answer the questions on the basis of the information given below.

Five persons – Adam, Brenda, Colin, David and Edmund – live in five different cities – Nua, Birr, Portlaoise, Daingean and Bunclody – not necessarily in the same order. Each of the aforementioned cities had a different old name among Maryborough, Ewbridge, Newtownbarry, Parsonstown and Philipstown. The years in which the cities got their present names were 1920, 1921, 1929, 1930 and 1950, with no two cities getting their present names in the same year. It is also known that:

For question 55 to 57: Using statements (iv), (vi) and (vii), preliminary table can be drawn as shown below.

Old name	New name	Person	Year
	Portlaoise	Adam	
	Nua		1930
	Buncloody		1950

From statement (ii), we can say that Brenda does not live in the city whose new name is either Birr or Bunclody; David does not live in the city whose new name is Daingean; Edmund does not live in the city whose old name was Ewbridge.

Using the other statements, the final tables can be drawn as shown below

Old name	New name	Person	Year
Parsonstown	Birr	Colin/ David	1920/1921
Philipstown	Daingean	Edmund	1921/1920
Maryborough	Portlaoise	Adam	1929
Ewbridge	Nua	Brenda	1930
Newtownbarry	Buncloody	David/Colin	1950

Old name	New name	Person	Year
Maryborough	Portlaoise	Adam	1920
Ewbridge	Birr	Colin/David	1921
Philipstown	Daingean	Edmund	1929
Parsonstown	Nua	Brenda	1930
Newtownbarry	Bunclody	David/ Cdin	1950

55. c David lives in Bunclody.

56. a Maryborough was the old name of the city in which Adam could have lived.

57. c The correct combination is Newtownbarry-Bunclody-1950.

Directions for questions 58 to 60: The passage given below is followed by a set of questions. Choose the most appropriate answer to each question.

Last week there was a story filed from Islamabad on trade between India and Pakistan across the Line of Control. Some readers have taken objection to the use of the terms 'Indian occupied Kashmir' and 'Azad Jammu and Kashmir' while quoting Pakistan's foreign affairs spokesperson. Newspapers have inherent difficulties in describing contested territories while adhering to the fundamental rules of reporting. In this case, the terms were not an invention of the reporter and the story was a faithful report of the Pakistani side of the story. The reporter has not endorsed it but merely reported a statement.

In the last two decades, there had been constant interactions between journalists from India and Pakistan about fair coverage of Kashmir, which has been trapped in the nationalistic narratives of the two neighbours. In 2005, when some of the influential editors of Indian and Pakistani media met at Istanbul, one of the issues they discussed was what the media can do to lower cross-border tensions and change the prevailing attitude of confrontation to reconciliation. They came up with a suggestion to use terms that capture the reality rather than the respective countries' stated positions. Accordingly, for a very short period, many media outlets, both in India and in Pakistan, used 'India Administered Kashmir' instead of 'India Occupied Kashmir' and 'Pakistan Administered Kashmir' instead of 'Pakistan Occupied Kashmir'. But soon, the nationalist narratives gained precedence over the terminological exactitude.

In this context, I also realise my own transition from a journalist to an ombudsman.¹⁸ The crucial difference between a journalist and an ombudsman is the source, the beginning point, from which their respective writings flow. While journalists report on events and developments, ombudsmen write about the quality of journalistic writings, and whether they adhere to the prescribed standards and whether they stand up to the meticulous scrutiny of informed readers. Journalistic skills evolved over a period of three centuries and best practices have now been well documented and have become curriculum in various journalism schools across the world. But, literature about ombudsman-ship is not so rich. We, about hundred odd ombudsmen, learn from each other's experience to hone our skills.

One of the interesting voices I follow is Craig Silverman, an award-winning journalist and the founder of Regret the Error, a blog that reports on media errors and corrections, and trends regarding accuracy and verification. The Poynter Institute, where he is an adjunct¹⁹ faculty, hosts his blog.

58. Which of the following options would the author most agree with?

- (a) While writing about an age-old conflict, it is difficult for journalists to always be apolitical and not to present a nationalistic point of view.
- (b) Journalists may be tempted to write from their own perspective but most of them make an effort to present a realistic viewpoint with all the facts and events intact.
- (c) While journalists focus on reporting on things as they happen, ombudsmen pay more attention to the editorial perspective of the article.
- (d) An ombudsman pays attention to the quality of writing and the adherence to journalistic standards.**

18. **ombudsman (n)** : an official appointed to investigate individuals' complaints against a company or organization, especially a public authority

19. **adjunct (n)** : supplementary rather than an essential part

58. d Option (a) can be ruled out because it brings in a generalisation on journalistic bias. Since the article only mentions the India-Pakistan conflict, the option can be ruled out as a broad and unnecessary generalisation. Option (b) is incorrect because the author provides no evidence that journalists always try to present a realistic viewpoint. In fact, in the first paragraph, the author states, with specific reference to the article, that the journalist was sincerely portraying the Pakistani side of the story. Option (c) is incorrect because the penultimate paragraph states that ombudsmen pay attention to the quality of journalistic writing. This does not indicate that they focus on the editorial perspective (the editor's or the publication's opinion). The penultimate paragraph goes on to state that the ombudsman pays attention to the quality of journalistic writing and seeks to understand if it keeps up with standards. The last sentence of this paragraph thus indicates that there is focus on journalistic improvement. Option (d) is thus the right answer.
59. Which of the following questions would you ask the author at the end of the passage?
- (a) **How does the example of the blog, Regret the Error, reflect how ombudsmen learn from each other and attempt to improve the standards of journalism?**
- (b) How does the blog, Regret the Error, help monitor high standards of journalistic reporting?
- (c) Which other examples could you present to reflect how ombudsmen try to learn from each other in order to improve their skills?
- (d) What is your perspective on the availability of documentation of best practices for journalism versus that available for ombudsmen?
59. a The last two paragraphs mention the fact that an ombudsman comments on whether journalists adhere to the standards of journalistic writing. The example of the blog, Regret the Error, is provided to illustrate the point that the author makes – that ombudsmen try to learn from each other so that they can hone their skills. Option (a) is the answer as this fits in with the logical thought that the author should focus on after the last paragraph. Ideally, the author would elaborate on how Regret the Error contributes to or illustrates the philosophy of the ombudsman. Option (b) can be ruled out because the main subject of the passage is not the blog. Besides, the author never once hints that the blog, itself, can help maintain high journalistic standards. In fact, the author indicates in the first sentence of the last paragraph that the blog is one of the many voices (ombudsmen) from which he betters his skill as an ombudsman. Option (c) can be ruled out because the author has just introduced the blog in the last paragraph. He does not explain how this blog helps an ombudsman. Without completing this discussion, the last paragraph would be rendered inconsequential. Option (d) is irrelevant because the author only makes a passing reference to the fact that best practices related to journalism have been well documented while ombudsmen have to rely on each other (a few hundred) to hone their skills. The last paragraph also does not focus on the lack of documentation for ombudsmen.

60. Talking about the problems that journalists tend to face while reporting on certain issues. The author then moves on to talk about his experience as an ombudsman. This, probably, can be a mention in passing to show how he might also had to face similar problems as a journalist. However, even this cannot be said conclusively. Option (a) is too narrow in the context of the passage. Option (b) can be ruled out because the passage does not state or indicate anywhere that the difference between the ombudsman and the journalist is explained in order to understand/differentiate the levels at which either entity operates. Option (c) focuses on journalists and fails to answer why the ombudsman is introduced in the passage. Hence, option (d) is the correct answer.