

# HCL Mock – 3

# English

## Topic - Antonyms

1) In the following question, choose the word opposite in meaning to the given word.

Brazen

- a) Soften
- b) Risen
- c) Access
- d) Timid

Correct Choice: d

Explanation:

(d) is the correct answer. BRAZEN means 'bold'. TIMID is its antonym.

Soften- Ease.

Risen- Increased.

Access- Ingress.

## Topic – Error Location

2) In the following question, one part of the sentence may have an error. Select the option containing the error as your answer.

Ambition is a ferocious current (A)/ that can make a human body (B)/ absorb considering pain (C)/ to attain a purely materialistic interest. (D)

- a) A
- b) B
- c) C
- d) D

Correct Choice: c

Explanation:

(c) is the correct answer. The error is in part C, replace the preposition (CONSIDERING) with the adjective (CONSIDERABLE) to modify the noun (PAIN).

### Topic – One Word Substitution

3) In the following question, out of the four alternatives, choose the one which can be substituted for the given words/sentence.

One who unable to pay his debt

- a) Bankrupt
- b) Chauvinist
- c) Arbitrator
- d) Ambidextrous

Correct Choice: a

Explanation:

(a) is the correct answer. A person is BANKRUPT when he is unable to pay his debt.

Chauvinist- One who follows an idea or belief blindly.

Arbitrator- a person who mediates between two people or groups who do not agree.

Ambidextrous- one who can use both hands easily.

## Topic – Reading Comprehension

(4-7) Directions: Read the following passage carefully and answer the questions.

The National Mental Health Survey-2016 had already established that over 10 per cent of India's adult population had a diagnosable mental disorder. The Mental Healthcare Act is aimed at protecting the rights of such persons, but there is a general lack of awareness about this potentially empowering legislation. The deep-rooted stigma associated with such ailments is another stumbling block. As these disorders are not easily discernible, there is a tendency among the affected individuals and their families to conceal them, fearing an adverse impact on their job and marriage prospects. Such a negative mindset has to change, coupled with greater efforts from the government to provide quality infrastructure for mental healthcare. The whole community needs to play a proactive role to ensure that people with mental disorders neither face discrimination nor are denied access to treatment. It's also imperative to integrate mental health services with general healthcare for better outcomes. Though India had signed and ratified the UN Convention on the Rights of Persons with Disabilities in 2007, the country still has a long way to go to make its mentally unwell citizens feel at home.

4) As per the passage, what proportion of India's adult population is suffering from a diagnosable mental disorder?

- a) Over 5%
- b) Over 10%
- c) Less than 1%
- d) Less than 10%

Correct Choice: b

Explanation:

(b) is the correct answer. Refer to the lines: *The National Mental Health Survey-2016 had already established that over 10 per cent of India's adult population had a diagnosable mental disorder.*

It implies that over 10 per cent of the adult population is suffering from a diagnosable mental disorder.

5) As per the passage, what are the hurdles in the path of the fight against mental illness in India?

- a) Lack of awareness of the mental health care act
- b) The stigma associated with mental illness
- c) Lack of funds from the government
- d) Both (a) and (b)

Correct Choice: d

Explanation:

(d) is the correct answer. As per the passage, lack of awareness of the mental healthcare act and the deep-rooted stigma associated with mental illness are the two hurdles in the path of addressing mental illness in India. (c) is out of context and not mentioned in the passage.

Thus, untrue.

6) As per the passage, what are the ways to address the issue of mental illness in India?

- a) The government should provide better infrastructure.
- b) Active role of communities to make sure people with mental illness do not face any discrimination.
- c) Integration of mental health with general health care services may yield a better outcome.
- d) All are ways to address the issue.

Correct Choice: d

Explanation:

(d) is the correct answer. As per the passage, good infrastructure should be provided by the government and the communities should play a proactive role to make sure that people with mental illness do not face any discrimination and are not deprived of treatment, integration of mental health with general health care services may also yield a better outcome. These are ways to deal with the issue of mental issue.

7) As per the passage, India has become the signatory of which of the following convention?

- a) UN Convention on the Rights of Persons with Disabilities
- b) UN Convention on the Rights of Persons with mental disorders
- c) UN Convention on the Rights of Persons with special needs
- d) UN Convention on the Rights of Persons with autism

Correct Choice: a

Explanation:

(a) is the correct answer. Refer to the lines: *“India had signed and ratified the UN Convention on the Rights of Persons with Disabilities in 2007...”*. It implies that India had become a signatory of the UN Convention on the Rights of Persons with Disabilities. Thus, (a) is true.

(b), (c) and (d) are out of context.

## Topic – Para – Jumbled Sentences

(8-9) Directions: A set of five statements is given below, which when rearranged, form a meaningful paragraph. One of the statements does not belong to the paragraph. Rearrange the remaining sentences and answer the questions.

P. Infant mortality is conventionally measured as the number of deaths in the first year of life per 1,000 live births during the same year.

Q. Roughly speaking, by this measure worldwide infant mortality approximates 80 per 1,000; that is, about 8 percent of newborn babies die within the first year of life.

R. In developing countries, substantial declines in infant mortality have been credited to improved sanitation and nutrition, increased access to modern health care, and improved birth spacing through the use of contraception.

S. In industrialized countries in which infant mortality rates were already low, the increased availability of advanced medical technology for newborn—in particular, prematurely born—infants provides a partial explanation.

T. Generally, infant mortality is somewhat higher among males than among females.



8) Which of the following represents the final order of the statements that form the paragraph?

- a) PTQR
- b) SQRT
- c) PQRS
- d) RQTP

Correct Choice: c

Explanation:

PQRS is the final order. P begins the paragraph by defining what infant mortality is. Q follows by telling us what the global infant mortality is. RS form a pair - R tells us the causes behind the decline in infant mortality in developing countries, and S tells us the causes behind the decline in infant mortality in developed countries. Thus, (c) is the right answer.

T is the odd sentence as it talks about differences in infant mortality among males and females, which is tangential to the main point of the passage.

## Topic -

9) Which of the following is the odd sentence?

- a) S
- b) R
- c) Q
- d) T

Correct Choice: d

Explanation:

PQRS is the final order. P begins the paragraph by defining what infant mortality is. Q follows by telling us what the global infant mortality is. RS form a pair - R tells us the causes behind the decline in infant mortality in developing countries, and S tells us the causes behind the decline in infant mortality in developed countries.

T is the odd sentence as it talks about differences in infant mortality among males and females, which is tangential to the main point of the passage. Thus, (d) is the right answer

## Topic – Parts of Speech

(10-12) In this question, two words related in some way are given and third word is also given with four or five alternatives. You have to find out which one of the alternatives bears the same relation with the third word as first and second words are related.

10) Justification: justify : : Difference: ?

- a) Indifferent
- b) Different
- c) Differentiate
- d) differently

Correct Choice: c

Explanation:

JUSTIFICATION is a noun, and JUSTIFY is its verb form. DIFFERENCE is a noun, which means its verb form should follow. DIFFERENTIATE is the verb form, which makes (c) the right answer.

Indifferent - uncaring. DIFFERENT and DIFFERENTLY is an adjective and adverb respectively. Differential (adjective) - of, showing, or depending on a difference; varying according to circumstances or relevant factors.

(10-12) In this question, two words related in some way are given and third word is also given with four or five alternatives. You have to find out which one of the alternatives bears the same relation with the third word as first and second words are related.

11) Courageous: Courage : : Easy: ?

- a) uneasy
- b) easiness
- c) easily
- d) ease

Correct Choice: d

Explanation:

COURAGEOUS is an adjective, and COURAGE is its noun form. EASY is an adjective, so its noun form must follow. Thus, (d) is the right answer.

Uneasy (adj) - uncomfortable. Easiness (noun) - comfort. EASILY is an adverb. Uneasily (adverb) - uncomfortably.

(10-12) In this question, two words related in some way are given and third word is also given with four or five alternatives. You have to find out which one of the alternatives bears the same relation with the third word as first and second words are related.

12) Talkative: Talk : : Tireless: ?

- a) tired
- b) tiresome
- c) tiring
- d) tire

Correct Choice: d

Explanation:

TALKATIVE is an adjective, and TALK is its verb form. TIRELESS is an adjective, so its verb form should follow. Thus, (d) is the right answer.

Tired (adj.) - weary. Tiresome (adj.) - annoying. Tiring (adj.) - exhausting.  
Tyre (noun) - a rubber covering, typically inflated or surrounding an inflated inner tube, placed round a wheel to form a soft contact with the road.

## Topic – Reading Comprehension

(13-15) Directions: Read the following passage carefully and answer the questions.

The history of radio, and in particular how it was regulated in interwar Germany, is more relevant than ever: Five years ago, the question was whether we would regulate social media. Now the questions are how and when we will regulate them. As politicians and regulators in places as disparate as Berlin, Singapore, and Washington—even Facebook founder Mark Zuckerberg—consider how best to do so, we should think carefully about the fallout from well-intentioned new rules and avoid the mistakes of the past. Airplanes \_\_\_\_\_(A)\_\_\_\_\_ in Nazi election strategy in the last years of the democratic Weimar Republic. When Hitler campaigned to be president in 1932, he flew to multiple locations a day to give speeches to roaring crowds. Arriving by plane, Hitler strode on the tarmac like the epitome of a strong leader. Although he lost that campaign, he still capitalized on German admiration for aviation to make the Nazis appear exciting and modern.

Radio was different. Radio only became central to Nazi aims after Hitler was elected chancellor in January 1933, but Goebbels quickly exercised power over the medium, because the state already controlled its infrastructure and content. State control over radio had been intended to defend democracy. It unintentionally laid the groundwork for the Nazi propaganda machine. Radio emerged as a new technology in the early 1920s, and the bureaucrat tasked with developing regulations for it in the Weimar Republic, Hans Bredow, initially had high hopes. (B) He thought that radio could broadcast education and entertainment to bring the German population together after the divisive loss of World War I, and believed that radio should not broadcast political content, fearing it might exacerbate an already febrile environment. Initially, Bredow allowed private companies to broadcast, and only from the mid-1920s on did stations start to air some news. This seemed dangerous to Bredow and

other officials, who worried that news could stoke uprisings or antidemocratic sentiment.

The passage provides sufficient information to answer which of the following questions?

1. Why did Hans Bredow not allow radio stations to air news initially?
2. What did the Nazi campaign use to appear exciting and modern?
3. What role did the radio play in preventing the fall of the Weimar Republic?

13)

- a) Only 2
- b) Only 1 and 2
- c) Only 1 and 3
- d) Only 2 and 3

Correct Choice: b

Explanation:

Both 1 and 2 are answered by the information in the passage. Thus, (b) is the correct answer. Refer to the lines: *“Initially, Bredow allowed private companies to broadcast, and only from the mid-1920s on did stations start to air some news. This seemed dangerous to Bredow and other officials, who worried that news could stoke uprisings or antidemocratic sentiment.”* This answers 1. Refer to the line: *“Although he lost that campaign, he still capitalized on German admiration for aviation to make the Nazis appear exciting and modern.”* This answers 2.

3 is not answered by the information in the passage.

14) Which of the following is/ are true as per the passage?

1. Radio was used by Hitler as a tool for propaganda during his election campaign as chancellor.
2. Hitler appeared to be a strong leader and used to give many speeches.
3. Hitler was elected chancellor in 1933.

- a) Only 3
- b) Only 1 and 2
- c) Only 1 and 3
- d) Only 2 and 3

Correct Choice: d

Explanation:

Both 2 and 3 are true as per the passage. Refer to the lines: *“When Hitler campaigned to be president in 1932, he flew to multiple locations a day to give speeches to roaring crowds. Arriving by plane, Hitler strode on the tarmac like the epitome of a strong leader.”* This confirms 2. Refer to the line: *“Radio only became central to Nazi aims after Hitler was elected chancellor in January 1933.”* This confirms 3. Thus, (d) is the right answer.

1 is untrue as the passage tells us that radio was used by the Nazis only after Hitler became the chancellor. Refer to the line: *“Radio only became central to Nazi aims after Hitler was elected chancellor in January 1933.”*



15) Which of the following phrases can fit in (A)?

1. Played a vital role
2. Were prominent tools
3. Contributed greatly

- a) Only 1
- b) Only 1 and 2
- c) Only 1 and 3
- d) Only 2 and 3

Correct Choice: b

Explanation:

The passage tells us the role played by airplanes in Nazi election strategy. Both 1 and 2 can fit here to convey the requisite meaning. Thus, (b) is the right answer.

3 is incorrect as the verb CONTRIBUTED will take the preposition TO after it.

# Quantitative Aptitude

## Topic - Algebra

16) If  $(7 - 17x)/x + (7 - 17y)/y + (7 - 17z)/z = 12$ , then find the value of  $(1/x + 1/y + 1/z)$ .

- a) 5
- b) 6
- c) 9
- d) 4

Correct Choice: c

Explanation:

$$(7 - 17x)/x + (7 - 17y)/y + (7 - 17z)/z = 12$$

$$7(1/x + 1/y + 1/z) - 3 \times 17 = 12$$

$$\text{Or, } (1/x + 1/y + 1/z) = (12 + 51)/7 = 9$$

Hence, option c.

## Topic - Trigonometry

17) If  $\operatorname{cosec}^2x + \cot^2x = 5/3$  then find the value of  $\sin 2x$

- a)  $\sqrt{3}/2$
- b)  $1/2$
- c) 1
- d) 0

Correct Choice: a

Explanation:

$$\text{Given, } \operatorname{cosec}^2x + \cot^2x = 5/3 \dots\dots\dots (3)$$

$$\text{Also, } \operatorname{cosec}^2x - \cot^2x = 1 \dots\dots\dots (2)$$

On solving equation (1) and (2) we get

$$\operatorname{cosec}^2x = 4/3$$

$$\text{Or, } \operatorname{cosec}x = \sqrt{4/3} = 2/\sqrt{3}$$

$$\text{Therefore, } x = 60^\circ$$

$$\text{Therefore, } \sin 2x = 2\sin x \cos x = \sqrt{3}/2$$

Hence, option a.

## Topic- Profit & Loss

18) Rohit bought a radio for Rs. 2500 and then spent Rs. 375 on its repairing. He then sold the radio at 20% profit. If he had not spent the amount on repairing, then find the profit percent for the same selling price.

- a) 34%
- b) 38%
- c) 40%
- d) 42%

Correct Choice: b

Explanation:

Total cost price of the article =  $2500 + 375 = \text{Rs. } 2875$

Selling price of the article =  $1.2 \times 2875 = \text{Rs. } 3450$

Required profit percent =  $\{(3450 - 2500)/2500\} \times 100 = 38\%$

Hence, option b.

## Topic - Volumes

19) The radius of the base of a cone is 7 metres and its slant height is 55 metres. The curved surface of a cylinder is 20% less than that of cone. The curved surface area of the cylinder is 352 m<sup>2</sup> more than its area of the base. Find the height of the cylinder.

- a) 18 metres
- b) 15 metres
- c) 11 metres
- d) 16 metres

Correct Choice: c

Explanation:

Curved surface area of the cone =  $\pi r l = (22/7) \times 7 \times 55 = 1210 \text{ m}^2$

Therefore, curved surface area of the cylinder =  $0.80 \times 1210 = 968 \text{ m}^2$

Let the area of the base of the cylinder be 'b' m<sup>2</sup>

According to the question,

$$968 - b = 352$$

$$\text{Or, } b = 616$$

$$\text{Therefore, } \pi r^2 = 616$$

$$\text{Or, } r^2 = (616 \times 7)/22 = 196$$

$$\text{Therefore, } r = 14 \text{ m}$$

$$\text{Or, } 2\pi r h = 968$$

$$\text{Or, } h = 968 \times (7/22 \times 28) = 11 \text{ metres}$$

Hence, option c.

## Topic – Boats & Streams

20) The sum of the speed of a boat in still water and current is 20 km/hr. The boat takes 14.5 hours to cover 145 km upstream. If the speed of the boat is increased by \_\_\_\_\_ % then it takes \_\_\_\_\_ hours to cover 130 km downstream.

The values given in which of the following options will fill the blanks in the same order in which is it given to make the statement true:

I. 40%, 5 hours

II. 80%, 3 hours

III. 50%, 4 hours

- a) Only I
- b) Only I and III
- c) Only I and II
- d) All I, II and III

Correct Choice: a

Explanation:

Let the speed of the boat in still water be 'x' km/hr

Therefore, speed of the current =  $(20 - x)$  km/hr

According to the question,

$$x - 20 + x = 14.5/145$$

$$2x - 20 = 10$$

$$\text{Or, } x = 15 \text{ km/hr}$$

For I:

Speed of boat in still water =  $1.4x = 21$  km/hr

Downstream speed of the boat =  $21 + 5 = 26$  km/hr

Therefore, time taken to cover 130 km downstream =  $130/26 = 5$  hours

Therefore, I is true

For II:

Speed of the boat in still water =  $1.8x = 27$  km/hr

Downstream speed of the boat =  $27 + 5 = 32$  km/hr

Time taken to cover 130 km downstream =  $130/32 = 4.0625$  hours

Therefore, II is false.

For III:

Speed of the boat in still water =  $1.5 \times 5 = 22.5$  km/hr

Downstream speed of the boat =  $22.5 + 5 = 27.5$  hours

Time taken to cover 130 km downstream =  $130/27.5 = 4.72$  hours

Therefore, III is false.

Hence, option a.

## Topic – Time & Work

(21-22) Directions: Answer the questions based on the information given below.

There are 4 persons P, Q, R and S. P and Q start a work together. After 9 days, P is replaced by R who can do the work alone in half of the time in which S can do alone. After 4 days more, R left the work and remaining work is completed by Q alone in 7 days. P did  $100/3\%$  of the total work. S is 25% less efficient than P.

21) Find the time taken by R and S together to complete the whole work.

- a) 20 days
- b) 18 days
- c) 12 days
- d) 15 days

Correct Choice: c

Explanation:

Let the total amount of the work = 180 units

P worked for 9 days and he did  $\frac{100}{3}\%$  of the work. So he can complete the whole work in 27 days.

Amount of the work done by P in one day =  $\frac{180}{27} = \frac{20}{3}$  units

Amount of the work done by S in one day =  $\frac{20}{3} \times 75\% = 5$  units

Amount of the work done by R in one day =  $5 \times 2 = 10$  units

Let the amount of the work done by Q in one day =  $x$  units

$$\left(\frac{20}{3} + x\right) \times 9 + (x + 10) \times 4 + 7 \times x = 180$$

$$60 + 9x + 4x + 40 + 7x = 180$$

$$20x = 80$$

$$x = 4 \text{ units}$$

The time taken by P alone to complete the work =  $\frac{180}{20} \times 3 = 27$  days

The time taken by Q alone to complete the work =  $\frac{180}{4} = 45$  days

The time taken by R alone to complete the work =  $\frac{180}{10} = 18$  days

The time taken by S alone to complete the work =  $\frac{180}{5} = 36$  days

Required time =  $\frac{180}{(10 + 5)} = \frac{180}{15} = 12$  days

Hence, option c.

22) If the ratio of the efficiency of S to T is 5:x, S started the work alone and after 14 days T joined him and the remaining work was completed in 10 days. Find the time taken by T to complete the work alone.

a) 25 days

b) 30 days

c) 36 days

d) 24 days

Correct Choice: b

Explanation:

Let the total amount of the work = 180 units

P worked for 9 days and he did  $\frac{100}{3}\%$  of the work. So he can complete the whole work in 27 days.



Amount of the work done by P in one day =  $180/27 = 20/3$  units

Amount of the work done by S in one day =  $20/3 \times 75\% = 5$  units

Amount of the work done by R in one day =  $5 \times 2 = 10$  units

Let the amount of the work done by Q in one day =  $x$  units

$$(20/3 + x) \times 9 + (x + 10) \times 4 + 7 \times x = 180$$

$$60 + 9x + 4x + 40 + 7x = 180$$

$$20x = 80$$

$$x = 4 \text{ units}$$

The time taken by P alone to complete the work =  $180/20 \times 3 = 27$  days

The time taken by Q alone to complete the work =  $180/4 = 45$  days

The time taken by R alone to complete the work =  $180/10 = 18$  days

The time taken by S alone to complete the work =  $180/5 = 36$  days

According to the question,

$$5 \times 14 + (5 + x) \times 10 = 180$$

$$70 + 50 + 10x = 180$$

$$10x = 60$$

$$x = 6$$

Time taken by T to complete the work alone =  $180/6 = 30$  days

Hence, option b.

## Topic - Probability

(23-24) Directions: Answer the questions based on the information given below.

In a bag there are 3 Green, 'x' Yellow and 'y' Red ball. The probability of choosing one Yellow ball and one Red ball together is  $\frac{2}{9}$ , and the probability of choosing a Red ball is  $\frac{1}{5}$ .

23) What is the total number of balls in the bag?

- a) 5
- b) 10
- c) 12
- d) 16

Correct Choice: b

Explanation:

The probability of choosing a Red ball =  $\frac{1}{5}$

$${}^y C_1 / ({}^{x+y+3} C_1) = \frac{1}{5}$$

$$y / (x + y + 3) = \frac{1}{5}$$

$$5y = x + y + 3 \dots\dots(1)$$

$$x = 4y - 3 \dots\dots(2)$$

The probability of choosing one Yellow ball and one Red ball =  $\frac{2}{9}$

$${}^x C_1 \times {}^y C_1 / ({}^{x+y+3} C_2) = \frac{2}{9}$$

$$(x \times y) / [(x + y + 3)(x + y + 3 - 1) / 2] = \frac{2}{9}$$

Put the value of  $x + y + 3$  from equation 1

$$(x \times y) / [5y \times (5y - 1)] = \frac{1}{9}$$

$$9x = 25y - 5$$

Put the value of  $x$  from the equation 2

$$9(4y - 3) = 25y - 5$$

$$36y - 27 = 25y - 5$$

$$11y = 22$$

$$y = 2$$

Put the value of y in equation 1

$$x = 4 \times 2 - 3 = 5$$

Number of Yellow balls = 5

Number of Red balls = 2

Total number of balls in bag =  $3 + 5 + 2 = 10$

Hence, option b.

24) What is the probability of choosing three balls such that at least one of them is Yellow?

a)  $11/12$

b)  $4/9$

c)  $13/15$

d)  $15/16$

Correct choice: a

Explanation:

The probability of choosing a Red ball =  $1/5$

$${}^y C_1 / ({}^{x+y+3} C_1) = 1/5$$

$$y / (x + y + 3) = 1/5$$

$$5y = x + y + 3 \dots\dots(1)$$

$$x = 4y - 3 \dots\dots(2)$$

The probability of choosing one Yellow ball and one Red ball =  $2/9$

$${}^x C_1 \times {}^y C_1 / ({}^{x+y+3} C_2) = 2/9$$

$$(x \times y) / [(x + y + 3)(x + y + 3 - 1)/2] = 2/9$$

Put the value of  $x + y + 3$  from equation 1

$$(x \times y)/[5y \times (5y - 1)] = 1/9$$

$$9x = 25y - 5$$

Put the value of x from the equation 2

$$9(4y - 3) = 25y - 5$$

$$36y - 27 = 25y - 5$$

$$11y = 22$$

$$y = 2$$

Put the value of y in equation 1

$$x = 4 \times 2 - 3 = 5$$

Number of Yellow balls = 5

Number of Red balls = 2

1 yellow and 2 other balls:

$$\text{Probability} = {}^5C_1 \times {}^5C_2/{}^{10}C_3 = 5/12$$

2 yellow and 1 other ball:

$$\text{Probability} = {}^5C_2 \times {}^5C_1/{}^{10}C_3 = 5/12$$

3 yellow balls:

$$\text{Probability} = {}^5C_3/{}^{10}C_3 = 1/12$$

$$\text{Required probability} = 5/12 + 5/12 + 1/12 = 11/12$$

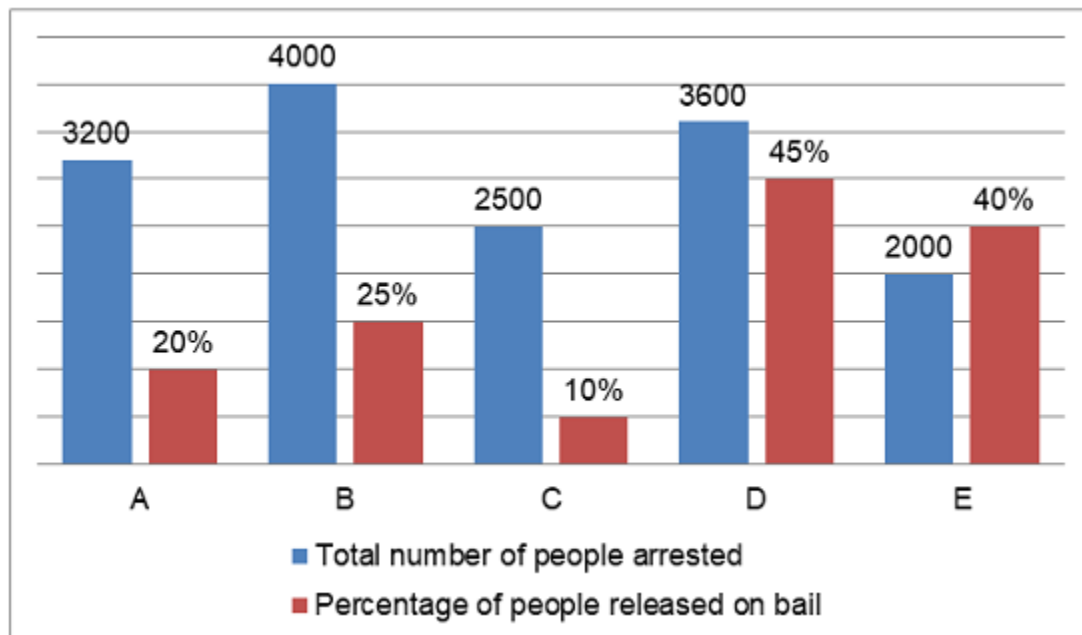
Hence, option a.

## Topic – Data Interpretation (Bar Graphs on Percentages)

(25-26) Directions: Answer the questions based on the information given below.

The given bar graph shows the total number of people arrested and the percentage of people out of total number of people arrested, released on bail in five different places.

People who are arrested are either released on bail or still in jails.



25) The number of males who are on bail in city 'B' is equal to the average number of people who are on bail in city 'B' and 'C'. The number of female who are on bail in city 'B' is 25% of number of females in jails in city 'B'. Find the number of males in jails in city 'B'.

- a) 1620
- b) 1400
- c) 1000
- d) 1500

Correct Choice: d

Explanation:

	Total number of people arrested	Number of people released on bail	Number of people still in jails
A	3200	$0.20 \times 3200 = 640$	$3200 - 640 = 2560$
B	4000	$0.25 \times 4000 = 1000$	$4000 - 1000 = 3000$
C	2500	$0.10 \times 2500 = 250$	$2500 - 250 = 2250$
D	3600	$0.45 \times 3600 = 1620$	$3600 - 1620 = 1980$
E	2000	$0.40 \times 2000 = 800$	$2000 - 800 = 1200$

Number of males who are on bail in city 'B' =  $(1000 + 250)/2 = 625$

Therefore, number of females on bail in city 'B' =  $1000 - 625 = 375$

Number of females in jails in city 'B' =  $375/0.25 = 1500$

Therefore, number of males in jails in city 'B' =  $3000 - 1500 = 1500$

Hence, option d.

26) Find the average of the number of people in jails in city 'D' and 'E' together.

- a) 1870
- b) 1420
- c) 1590
- d) 1540

Correct Choice: c

Explanation:

	Total number of people arrested	Number of people released on bail	Number of people still in jails
A	3200	$0.20 \times 3200 = 640$	$3200 - 640 = 2560$
B	4000	$0.25 \times 4000 = 1000$	$4000 - 1000 = 3000$
C	2500	$0.10 \times 2500 = 250$	$2500 - 250 = 2250$
D	3600	$0.45 \times 3600 = 1620$	$3600 - 1620 = 1980$
E	2000	$0.40 \times 2000 = 800$	$2000 - 800 = 1200$

Required average =  $(1980 + 1200)/2 = 1590$

Hence, option c.

## Topic – Wrong No Series

27) The following numbers form a series. Find the odd one out.

124, 155, 211, 302, 430, 609

- a) 155
- b) 211
- c) 302
- d) 430

Correct Choice: c

Explanation:

$$124 + 5^2 + 6 = 155$$

$$155 + 7^2 + 7 = 211$$

$$211 + 9^2 + 8 = 300$$

$$300 + 11^2 + 9 = 430$$

$$430 + 13^2 + 10 = 609$$

So, 300 should come in place of 302.

Hence, option c.



## Topic – Data Sufficiency on Wrong No Series

28) Which of the following is correct about the relationship among the right numbers in place of wrong number in the following wrong series I and II?

Series I: 18, 19, 58, 63, 158, 129

Series II: 6, 8, 19, 67, 249, 1251

I. The difference between the right numbers is 2.

II. If the right number in series II is increased by 58 times, then it is exactly divisible by the right number in series I.

III. Sum of the right numbers is exactly divisible by 40.

- a) Only I
- b) Only II
- c) Only I and II
- d) All I, II and III

Correct Choice: d

Explanation:

Series I follows the pattern,

$$18 \times 0.5 + 10 = 19$$

$$19 \times 2 + 20 = 58$$

$$58 \times 0.5 + 30 = 59$$

$$59 \times 2 + 40 = 158$$

$$158 \times 0.5 + 50 = 129$$

So, right number = 59

Series II follow the pattern,

$$6 \times 1 + 2 = 8$$

$$8 \times 2 + 3 = 19$$

$$19 \times 3 + 4 = 61$$

$$61 \times 4 + 5 = 249$$

$$249 \times 5 + 6 = 1251$$

So, right number = 61

Statement I:

$$61 - 59 = 2$$

So, statement I is true.

Statement II:

$$(59 \times 61)/59 = 61$$

So, statement II is true.

Statement III:

$$59 + 61 = 120$$

$$120/40 = 3$$

So, statement III is true.

Hence, option d.

## Topic – Data Sufficiency on Averages

(29) The question consists of two statements numbered “I and II” given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

There are seven consecutive natural numbers. Find the average of the numbers.

Statement I: Largest number is 60% more than the smallest number.

Statement II: Largest number is 6 more than the smallest number.

- a) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- b) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
- c) The data either in statement I alone or in statement II alone are sufficient to answer the question.
- d) The data given in both statements I and II together are not sufficient to answer the question.

Correct Choice: a

Explanation:

Let the numbers are  $x$ ,  $x + 1$ ,  $x + 2$ ,  $x + 3$ ,  $x + 4$ ,  $x + 5$  and  $x + 6$  respectively.

Statement I:

According to question:  $1.6x = x + 6$

$$0.6x = 6$$

$$x = 10$$

So the numbers are 10, 11, 12, 13, 14, 15 and 16

Average of the numbers =  $(10 + 16)/2 = 13$

So, data in statement I alone is sufficient to answer the question.

Statement II:

According to question:  $x + 6 - x = 6$

$6 = 6$

Here 'x' is eliminated, so the numbers can't be determined.

So, data in statement II alone is not sufficient to answer the question.

Hence, option a.

### Topic – Data sufficiency on Probability

30) The question consists of two statements numbered "I and II" given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

A bag contains certain number of black, pink and yellow balls. Numbers of pink balls in the bag are thrice the number of black balls in the bag which is equal to the number of yellow balls in the bag. Find the total number of balls in the bag.

Statement I: Two balls are randomly drawn from the bag. The probability that a black and a pink ball are drawn is  $1/4$ .

Statement II: The probability of drawing a yellow ball from the bag is  $1/5$ .

- a) The data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- b) The data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
- c) The data either in statement I alone or in statement II alone are sufficient to answer the question.
- d) The data given in both statements I and II together are not sufficient to answer the question.

Correct Choice: a

Explanation:

Let the bag contains  $x$  black,  $x$  yellow and  $3x$  pink balls.

Statement I:

So the probability that a black and a pink ball are drawn =  $\frac{{}^x C_1 \times {}^{3x} C_1}{{}^{5x} C_2} = \frac{1}{4}$

$$2x \times 3x / 5x(5x - 1) = 1/4$$

$$24x = 25x - 5$$

$$x = 5$$

So the total number of balls in the bag =  $5 \times 5 = 25$

So statement I alone is sufficient to answer the question.

Statement II:

So the probability of drawing a yellow ball =  $\frac{{}^x C_1}{{}^{5x} C_1} = 1/5$

$$x/5x = 1/5$$

$$1/5 = 1/5$$

Here 'x' is eliminated. So the number of balls can't be determined.

So statement II alone is not sufficient to answer the question.

Hence, option a.

# Logical Reasoning

## Topic – Mathematical Operations (Interchanging of Signs and Numbers)

31) Which of the following “signs” are placed in place of “symbols” given in equation to make the equation true?

$$68 \div 8 @ 2 \# 16 \times 3 \div 8 \$ 7 = 16$$

- a) +, x, -
- b) -, +, x
- c) x, -, +
- d) x, +, -

Correct Choice: d

Explanation:

Given equation:

$$68 \div 8 @ 2 \# 16 \times 3 \div 8 \$ 7 = 16$$

So, if place x, + and -, we get,

$$68 \div 8 \times 2 + 16 \times 3 \div 8 - 7 = 16$$

Hence, option d.

## Topic – Number Coding

32) If HANDLE is coded as 14581214 and PREFECT is coded as 3556161820, then COUNTRY will be coded as \_\_\_\_\_.

- a) 3141518202125
- b) 314131821255
- c) 3151418583125
- d) 31141802125

Correct Choice: a

Explanation:

All the letters of the given words are written in increasing order of alphabets (alphabetical order) and then their corresponding values are written.

HANDLE – ADEHLN – 14581214

PREFECT – CEEFPRT – 3556161820

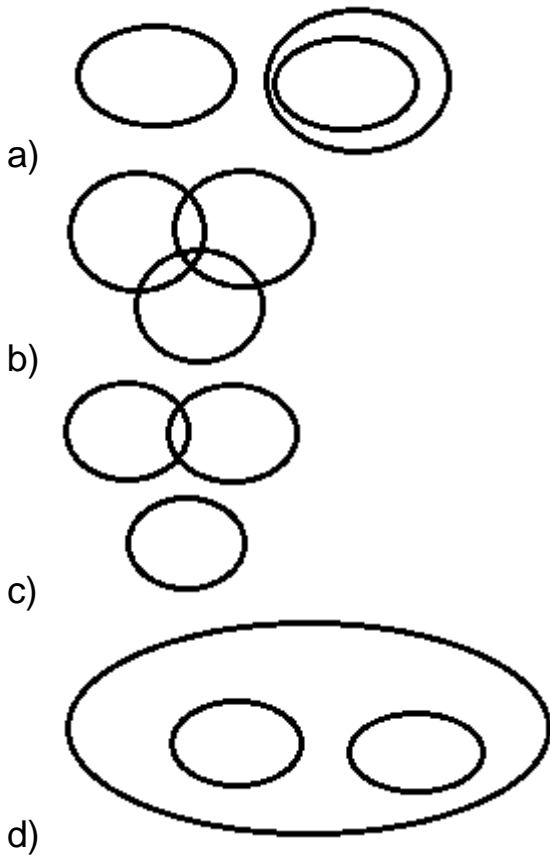
Similarly, COUNTRY – CNORTUY - 3141518202125

Hence, option a.

## Topic – Logical Venn Diagrams type 1

33) Select the Venn diagram that best illustrates the relationship between the following classes:

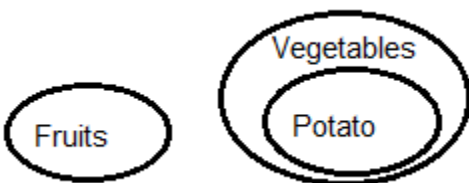
Fruits, Potato, Vegetables



Correct choice: a

Explanation:

Following Venn diagram represents the relation between Fruits, Potato and Vegetables

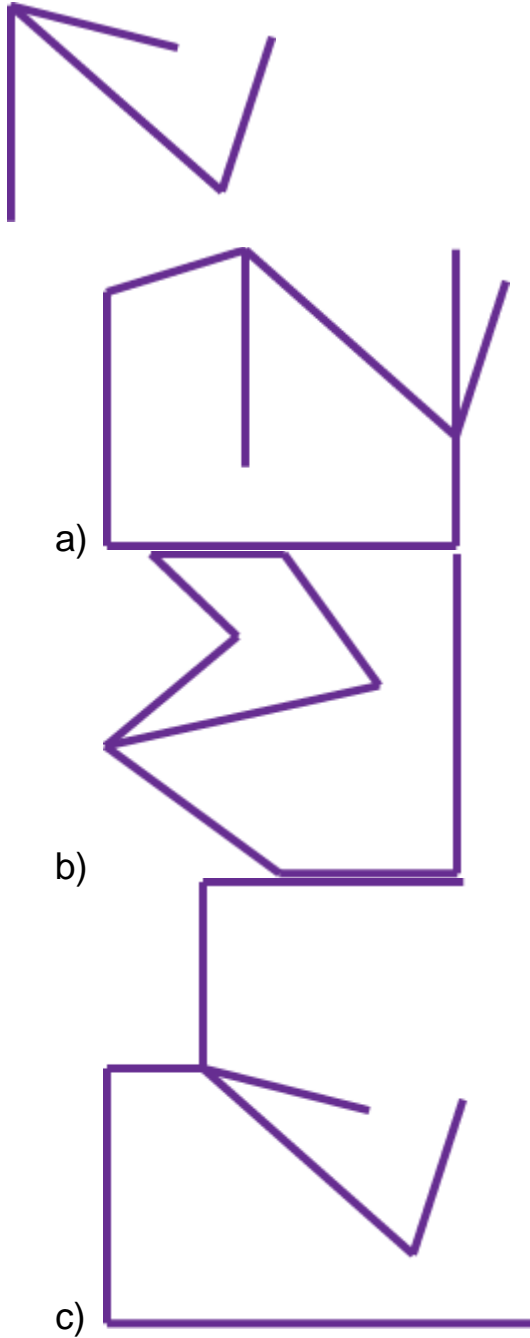




Hence, option a.

Topic – Spotting out the Hidden / Embedded Figure

34) Select the option in which the given figure is embedded.





d)

Correct Choice: b

Explanation:



Hence, option b.

### Topic – Letter – Number Series

35) Which of the following pair replaces ‘?’ in series given.

D6N, I10P, N14R, ? , X22V

- a) S19T
- b) S17U
- c) R19T
- d) S18T

Correct Choice: d

Explanation:

Given series

D6N, I10P, N14R, ? , X22V

So,  $D + 5 = I$ ,  $I + 5 = N$ ,  $N + 5 = S$ ,  $S + 5 = X$

$6 + 4 = 10$ ,  $10 + 4 = 14$ ,  $14 + 4 = 18$ ,  $18 + 4 = 22$

$N + 2 = P$ ,  $P + 2 = R$ ,  $R + 2 = T$ ,  $T + 2 = V$

Hence, option d.

## Topic – Matrix Coding

36) In the question, a word is represented by only one set of number as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by 2 classes of alphabets as in two matrices given below. The columns and rows of matrix I are numbers from 0-4 and that of matrix II are numbers from 5-9. A letter from this matrix can be represented 1<sup>st</sup> by its row and next by its column. E.g. - “A” can be represented by 66, 87 etc. and “B” can be represented by 86 etc. Similarly, you have to identify the set of word “PRACTICAL”.

Matrix I

	0	1	2	3	4
0	H	U	R	F	H
1	I	E	X	J	P
2	V	Z	C	I	R
3	T	O	M	L	U
4	K	W	F	K	E

Matrix II

	5	6	7	8	9
5	R	U	H	D	C
6	E	A	I	C	X
7	P	M	L	U	N
8	H	B	A	O	W

9	D	C	F	Z	V
---	---	---	---	---	---

- a) 75, 24, 66, 68, 30, 76, 22, 87, 77
- b) 14, 24, 66, 68, 30, 67, 22, 87, 77
- c) 14, 24, 69, 68, 30, 67, 22, 87, 77
- d) 14, 44, 66, 68, 76, 67, 22, 87, 77

Correct Choice: b

Explanation:

As the digits of the numbers represented by rows and column respectively,

P	R	A	C	T	I	C	A	L
14, 75	23, 24, 55	66, 87	22, 59, 68	30	10, 23, 67	22, 59, 68	66, 87	33, 77

Hence, option b.

### Topic – Coded Blood Relations

(37-38) Directions: Answer the questions based on the information given below:

A@ means A is a male

B(%) means B is a female

A \* B means A and B are married to each other

A # B means A is the parent of B

A & B means A and B are siblings with same genders

A \$ B means A and B are siblings with different genders

W & U; S # U; S@, V \$ Y; U # V, U%, T%, T # X, S\*T, V@

37) How is the sister of X related to T?

- a) Sister
- b) Daughter in law
- c) Mother
- d) Daughter

Correct choice: d

Explanation:

As W & U means W is married to U,

S # U means S is the parent of U.

S@ means S is a male member.

V \$ Y means V and Y are siblings with different genders.

U # V means U is the parent of V.

U% means U is a female member

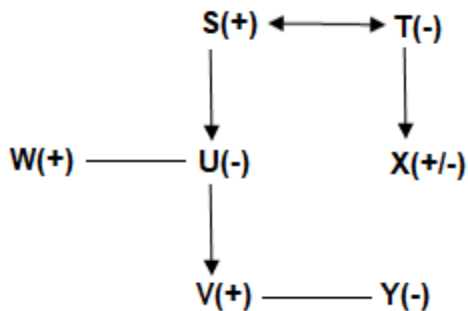
T% means T is a female member.

T # X means T is the parent of X.

S\*T means S and T are married

V@ means V is a male

The family tree:



Sister of X is the daughter of T.

Hence, option d.

38) If X@, how is S related to Y's maternal uncle?

- a) Father in law
- b) Son
- c) Father
- d) Grand father

Correct Choice: c

Explanation:

As W & U means W is married to U,

S # U means S is the parent of U.

S@ means S is a male member.

V \$ Y means V and Y are siblings with different genders.

U # V means U is the parent of V.

U% means U is a female member

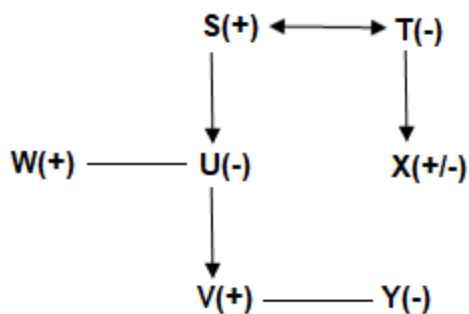
T% means T is a female member.

T # X means T is the parent of X.

S\*T means S and T are married

V@ means V is a male

The family tree:



X@ means X is a male member.

Y's maternal uncle is X and S is the father of X.

Hence, option c.

## Topic – Data Sufficiency on North Face Sitting Arrangement

39) The question given below can be answered using one of the statements given in the options. Find the correct option which can be answer the question.

Seven persons P, Q, R, S, T, U and V sit in a straight row facing north. Who sits 3<sup>rd</sup> from the left end?

- a) U sits 3<sup>rd</sup> to the left of Q. T sits adjacent to Q. Three persons sit to the left of T. S sits to the immediate right of P.
- b) P sits 2<sup>nd</sup> to the right of T. Two persons sit between T and S. Four persons sit between S and U. V sits adjacent to U. Q sits to the right of R.
- c) S sits 4<sup>th</sup> to the right of V. Either S or V sits at one of the extreme right end. Q sits 2<sup>nd</sup> to the left of S. U sits to the immediate right of R. P sits 2<sup>nd</sup> to the right of T.
- d) None of these.

Correct choice: d

Explanation:

From option (a), as U sits 3<sup>rd</sup> to the left of Q. T sits adjacent to Q. Three persons sit to the left of T. S sits immediate right of P, so

R/V	U	V/R	T	Q	P	S
-----	---	-----	---	---	---	---

Either V or R sits 3<sup>rd</sup> from the left end.

From option (b), P sits 2<sup>nd</sup> to the right of T. Two persons sit between T and S. Four persons sit between S and U. V sits adjacent to U. Q sits to the right of R, so

U	V	T	R	P	S	Q
R	U	V	T	Q	P	S
V	U	R	T	Q	P	S

Either R or V or T sits 3<sup>rd</sup> from the left end.

From option (c), as S sits 4<sup>th</sup> to the right of V. Either S or V sits at one of the extreme right end. Q sits 2<sup>nd</sup> to the left of S. U sits immediate right of R. P sits 2<sup>nd</sup> to the right of T, so

R	U	V	T	Q	P	S
V	T	Q	P	S	R	U

Either Q or V sits 3<sup>rd</sup> from the left end.

From option (d), as R and S sit at the extreme ends. P sits adjacent to S. Two persons sit between S and Q. V sits immediate left of T, who doesn't sit adjacent to U, so

S	P	U	Q	V	T	R
R	V	T	Q	U	P	S

Either V or U sits 3<sup>rd</sup> from the left end.

Hence, option d.



## Topic – Data Sufficiency on Floors Based Puzzle

40) The question given below consists of two statements numbered I and II below them. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the statements and give answer:

Eight persons A, B, C, D, E, F, G and H live on 8 storey building. The bottommost floor is numbered 1 and the topmost floor is numbered 8. Who lives floor 5?

Statement I: A lives three floors above E. H lives three floors below E. G lives on 3<sup>rd</sup> floor. D lives immediately above C. B lives above F.

Statement II: B lives two floors above D. Two persons live between D and G, who lives below floor 4. There is one floor between G and C, who doesn't live on floor 1. F lives immediately above H. E lives below A.

- a) If the data given in statement I alone is sufficient to answer the question.
- b) If the data given in statement II alone is sufficient to answer the question.
- c) If the data given in either statement I or statement II alone is sufficient to answer the question.
- d) If the data given in both statement I and statement II together are sufficient to answer the question.

Correct choice: d

Explanation:

From statement I, as A lives three floors above E. H lives three floor below E. G lives on 3<sup>rd</sup> floor. D lives immediately above C. B lives above F, so

8	A	B
7	D	A

6	C	D
5	E	C
4	B	E
3	G	G
2	H	F
1	F	H

Either E or C lives on floor 5.

From statement II alone, as B lives two floors above D. Two persons live between D and G, who lives below floor 4. There is one floor between G and C, who doesn't live on floor 1. F lives immediately above H. E lives below A, so

8	F	B
7	H	A
6	B	D
5	A	C
4	D	E
3	C	G
2	E	F
1	G	H

Either A or C lives on floor 5.

On combining statement I and statement II, C lives on floor 5.

Hence, option d.

### Topic – Data Sufficiency on Ordering & Ranking

(41) The question given below consists of two statements numbered I and II below them. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the statements and give answer:

Six persons P, Q, R, S, T and U have different heights. Who is the 3<sup>rd</sup> shortest person?

Statement I: Two persons are taller than P. R is not the tallest person. Neither T nor R is shorter than P. S is shorter than Q but not the shortest.

Statement II: P is taller than S. R is not shorter than Q. T is not shorter than U.

41)

- a) If the data given in statement II alone is sufficient to answer the question.
- b) If the data given in statement I alone is sufficient to answer the question.
- c) If the data given in either statement I or statement II alone is sufficient to answer the question.
- d) If the data given in both statement I and statement II together are sufficient to answer the question.

Correct Choice: b

Explanation:

From statement I alone, as Two persons are taller than P. R is not the tallest person. Neither T nor R is shorter than P. S is shorter than Q but not the shortest, so

$T > R > P > Q > S > U$

Clearly, Q is the 3<sup>rd</sup> shortest person.

From statement II alone, as P is taller than S. R is not shorter than Q. T is not shorter than U, no arrangement can be formed.

Data given in statement I alone is sufficient to answer the question.

Hence, option b.

## Topic - Data Sufficiency on Coding - Decoding

42) The question given below consists of three statements numbered I, II and III given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read all the statements and give answer.

In the given coded language, how is the word 'student' coded?

Statement I: 'he gets highest marks' is coded as 'ak, sk, pk, rk' and 'average marks of student' is coded as 'ak, ek bk, dk'.

Statement II: 'student with lowest marks' is coded as 'ck, ek, ak, fk' and 'lowest marks among all' is coded as 'fk, gk, ak, hk'.

Statement III: 'all gets good marks' is coded as 'ak, hk, sk, mk' and 'no student scored good' is coded as 'ek, lk, mk, xk'.

- a) Either statement III alone or both statement I and statement II are sufficient to answer the question.
- b) Either statement I alone or both statement I and statement II is sufficient to answer the question.
- c) Only statement II or statement III is sufficient to answer the question.
- d) Any two of the given statements is sufficient to answer the question.

Correct Choice: d

Explanation:

From statement I alone, 'student' is coded as either 'ek' or 'bk' or 'dk'.

From statement II alone, the code for 'student' is coded as either 'ck' or 'ek'.

From statement III alone, 'student' is coded as either 'lk' or 'xk' or 'ek'.

On combining both statement I and statement II, 'student' is coded as 'ek'

On combining both statement II and statement III, 'student' is coded as 'ek'

On combining both statement I and statement III, 'student' is coded as 'ek'

Hence, option d.

### Topic – Coding - Decoding

(43-45) Directions: Answer the questions based on the information given below.

In a code language,

“NESCAFE MUMBAI BANANA UBUNTU” is coded as “N3\$U, O3#N, T4@S, V3αU”

“PIONO MELISSA BEAU WIFI” is coded as “B1αU, P2&P, M4#S, G2\$W”

“EBAU JESSICA MINI POTATO” is coded as “U3&T, O2\$N, T4#S, B1αU”

“SUSHI MANGO GEORGIA AWESOME” is coded as “O3&O, F3@W, P3#R, T3\$U”

43) “O3#T” is the code for \_\_\_\_\_.

- a) Large
- b) Pimple
- c) Santa
- d) Conque

Correct Choice: c

Explanation:

In each code, the first letter is the immediate succeeding letter of the 3<sup>rd</sup> letter from the left end of the word.

The number in the code is the number of consonants in the word.

All the words end with a vowel, so the symbol in the code is:

“#” for the words ending with vowel “a”.

“@” for the words ending with vowel “e”.

“\$” for the words ending with “i”.

“&” for the words ending with vowel “o”.

“α” for the words ending with vowel “u”.

The last letter is the highest letter in the word (as per alphabetical series).

Example:

‘NESCAFE’

3<sup>rd</sup> letter from the left end of the word is S, so the first letter in its code is “T”.

Number of consonants in the word is 4.

As the word ends with “E”, so the symbol is “@”.

The highest letter in the word is “S”.

Therefore, the code for ‘NESCAFE’ is ‘T4@S’.

“Large” is coded as “S3@R”

“Pimple” is coded as “N4@P”

“Santa” is coded as “O3#T”

“Conque” is coded as “O3@U”

“Tata” is coded as “U2#T”

Hence, option c.

44) What is the code for “LENOVO”?

- a) O3&V
- b) P3\$V
- c) O4&N
- d) F3&V

Correct Choice: a

Explanation:

In each code, the first letter is the immediate succeeding letter of the 3<sup>rd</sup> letter from the left end of the word.

The number in the code is the number of consonants in the word.

All the words end with a vowel, so the symbol in the code is:

“#” for the words ending with vowel “a”.

“@” for the words ending with vowel “e”.

“\$” for the words ending with “i” code follows: the in the word. likes Blue. from Argentina. Each of these persons likes different col” for the words ending with vowel “i”.

“&” for the words ending with vowel “o”.

“α” for the words ending with vowel “u”.

The last letter is the highest letter in the word (as per alphabetical series).

Example:

‘NESCAFE’

3<sup>rd</sup> letter from the left end of the word is S, so the first letter in its code is “T”.

Number of consonants in the word is 4.

As the word ends with “E”, so the symbol is “@”.

The highest letter in the word is “S”.

Therefore, the code for ‘NESCAFE’ is ‘T4@S’.

The code for “LENOVO” is “O3&V”

Hence option a.

45) Which among the following is correctly matched?

a) lkdfе – E4\$L

b) kdji – K3\$K

c) lkjdu – H3αU

d) kldo – M3&L

Correct Choice: b

Explanation:

In each code, the first letter is the immediate succeeding letter of the 3<sup>rd</sup> letter from the left end of the word.

The number in the code is the number of consonants in the word.

All the words end with a vowel, so the symbol in the code is:

“#” for the words ending with vowel “a”.

“@” for the words ending with vowel “e”.

“\$” for the words ending with “i” in the word. Like Blue from Argentina. Each of these persons likes different color” for the words ending with vowel “i”.

“&” for the words ending with vowel “o”.

“α” for the words ending with vowel “u”.

The last letter is the highest letter in the word (as per alphabetical series).

Example:

‘NESCAFE’

3<sup>rd</sup> letter from the left end of the word is S, so the first letter in its code is “T”.

Number of consonants in the word is 4.

As the word ends with “E”, so the symbol is “@”.

The highest letter in the word is “S”.

Therefore, the code for ‘NESCAFE’ is ‘T4@S’.

The code for “kdji” is “K3\$K”.

Hence, option b.



# General Awareness

## Topic – Famous Mountains

46) Himalayas are considered which type of mountains?

- a) Fold
- b) Relic
- c) Volcanic
- d) Submarine

Correct Choice: a

Explanation:

Fold Mountains are the most common type of mountain in the world. The rugged, soaring heights of the Himalayas, Andes, and Alps are all active fold mountains.

## Topic – Famous Dances

47) Traditional theatre form “Yakshagana” is associated with which state of India?

- a) Maharashtra
- b) Gujarat
- c) Assam
- d) Karnataka

Correct Choice: e

Explanation:

Yakshagana is a traditional theatre form that combines dance, music, dialogue, and stage techniques with a unique style and form. This theatre style is mainly found in all parts of Karnataka.

## Topic – Famous Sea Ports

48) Which port of India was recently named as “Deendayal Port”?

- a) Okha
- b) Mangaluru
- c) Murmugaon
- d) Kandla

Correct Choice: d

Explanation:

Kandla, also known as the Kandla Port Trust or Deendayal Port is a seaport in Kutch District of Gujarat state in India, near the city of Gandhidham. Kandla Port was renamed as Deendayal Port under the India port act of 1908.

## Topic - Polity

49) Who presided over the joint seating of parliament?

- a) President
- b) Vice-President
- c) Lok Sabha Speaker
- d) Deputy Chairman of Rajya Sabha

Correct Choice: c

Explanation:

The joint sitting of the Parliament is called by the President (Article 108) and is presided over by the Speaker or, in his absence, by the Deputy Speaker of the Lok Sabha or in his absence, the Deputy-Chairman of the Rajya Sabha

## Topic - Polity

50) Who elects the members of Rajya Sabha?

- a) By Members of Lok Sabha
- b) By Elected Members of the Legislative Assembly
- c) By Elected Members of the Legislative Council
- d) By Citizens of a Particular State

Correct Choice: c

Explanation:

The Rajya Sabha candidates are elected by the Legislative Assembly of states and Union territories by means of Single transferable vote through Proportional representation.

# Technical (Computers)

## Topic - Register Variables

51) What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
    register int x = 5;
    m();
    printf("x is %d", x);
}
void m()
{
    x++;
}
```

a) 6

b) 5

c) Junk value

d) Compile time error

Correct Choice: d

## Topic - Automatic Variables

52) What will be the output of the following C code?

```
#include <stdio.h>
void foo(auto int i);
int main()
{
    foo(10);
}
void foo(auto int i)
{
    printf("%d\n", i );
}
```

- a) 10
- b) Compile time error
- c) Depends on the standard
- d) None of the mentioned

Correct Choice: b



## Topic - Pointers and Function Arguments

53) What will be the output of the following C code?

```
#include <stdio.h>
void m(int p, int q)
{
    int temp = p;
    p = q;
    q = temp;
}
void main()
{
    int a = 6, b = 5;
    m(a, b);
    printf("%d %d\n", a, b);
}
```

- a) 5 6
- b) 5 5
- c) 6 5
- d) 6 6

Correct Choice: c

## Topic - Address Arithmetic

54) What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    double *ptr = (double *)100;
    ptr = ptr + 2;
    printf("%u", ptr);
}
```

- a) 102
- b) 104
- c) 108
- d) 116

Correct Choice: d

## Topic - Character Pointers and Functions

55) What will be the output of the following C code?

```
#include <stdio.h>
void f(char *k)
{
    k++;
    k[2] = 'm';
    printf("%c\n", *k);
}
void main()
{
    char s[] = "hello";
    f(s);
}
```

- a) l
- b) e
- c) h
- d) o

Correct Choice: b

## Topic - Command Line Arguments

56) Which of the following syntax is correct for command-line arguments?

a)

```
int main(int var, char *varg[])
```

b)

```
int main(char *argv[], int argc)
```

c)

```
int main()  
{  
    int argv, char *argc[];  
}
```

d) none of the mentioned

Correct Choice: a

## Topic - Pointers Vs. Multi-dimensional Arrays

57) What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
    char a[10][5] = {"hi", "hello", "fellows"};
    printf("%p\n", a);
    printf("%p", a[0]);
}
```

- a) same address is printed
- b) different address is printed
- c) hello
- d) hi hello fello

Correct Choice: a

## Topic- Initialization of Pointer Arrays

58) Which of the following declaration are illegal?

- a) `int a[][] = {{1, 2, 3}, {2, 3, 4, 5}};`
- b) `int *a[] = {{1, 2, 3}, {2, 3, 4, 5}};`
- c) `int a[4][4] = {{1, 2, 3}, {2, 3, 4, 5}};`
- d) none of the mentioned

Correct Choice: a

### Topic - Basics of Structures

59) Which operator connects the structure name to its member name?

a) –

b) <-

c) .

d) Both <- and .

Correct Choice: c

## Topic - Structures and Functions

60) What will be the output of the following C code?

```
#include <stdio.h>
struct temp
{
    int a;
} s;
void func(struct temp s)
{
    s.a = 10;
    printf("%d\t", s.a);
}
main()
{
    func(s);
    printf("%d\t", s.a);
}
```

- a) 10 (Garbage Value)
- b) 0 10
- c) 10 0



d) (Garbage Value) 10

Correct Choice:c

### Topic- Complicated Declarations

61) What will be the output of the following C code?

```
#include <stdio.h>
struct student
{
    int no;
    char name[20];
};
void main()
{
    student s;
    s.name = "hello";
    printf("hello");
}
```

a) Nothing

b) hello

c) Compile time error

d) Varies

Correct Choice: c

## Topic - Constants

62) What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    printf("sanfoundry\rclass\n");
    return 0;
}
```

a) sanfoundryclass

b)

sanfoundry

class

c) classundry

d) sanfoundry

Correct Choice: c

Explanation: r is carriage return and moves the cursor back. sanfo is replaced by class.

Output:

```
$ cc pgm8.c
```

```
$ a.out
```

```
classundry
```

## Topic - Declarations

63) What will be the output of the following C code?

```
#include <stdio.h>
void main()
{
    int k = 4;
    float k = 4;
    printf("%d", k)
}
```

- a) Compile time error
- b) 4
- c) 4.0000000
- d) 4.4

Correct Choice: a

Explanation: Since the variable k is defined both as integer and as float, it results in an error.

Output:

```
$ cc pgm8.c
```

```
pgm8.c: In function 'main':
```

pgm8.c:5: error: conflicting types for 'k'

pgm8.c:4: note: previous definition of 'k' was here

pgm8.c:6: warning: format '%d' expects type 'int', but argument 2 has type 'double'

pgm8.c:7: error: expected ';' before '}' token

## Topic- Arithmetic Operators

64) What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    int a = 10;
    double b = 5.6;
    int c;
    c = a + b;
    printf("%d", c);
}
```

a) 15

b) 16

c) 15.6

d) 10

Correct Choice: a

## Topic - Type Conversions

65) What will be the output of the following C code?

```
#include <stdio.h>
int main()
{
    unsigned int i = 23;
    signed char c = -23;
    if (i > c)
        printf("Yes\n");
    else if (i < c)
        printf("No\n");
}
```

- a) Yes
- b) No
- c) Depends on the compiler
- d) Depends on the operating system

View Answer

Answer: b