TCS NQT Mock – 5

Verbal Ability

CLOZE Test (1-5)

(1-5) Directions: In the following passage, some of the words have been left out and replaced by a blank. First read the passage and try to understand what it is about. Then fill in the blanks as per the questions given.

Mountainous and meditative, Sikkim is a real-life Shangri-La boasting _____, deep valleys and soaring snow-capped peaks. The _____ landscape of this remote, sacred place is dotted with _____ traditional Tibetan Buddhist monasteries and Hindu shrines. Sikkim's lofty, modern capital Gangtok, elevation 5,410 feet, is the gateway to monastery tours and outdoor adventure, such as Himalayan mountain treks and guided _____ to the Khangchendzonga National Park UNESCO World Heritage Site. The park is named for the world's third-highest peak, Khangchendzonga, which reaches _____ of 4,000 to 28,170 feet above sea level and is part of the Khangchendzonga UNESCO Biosphere Reserve, one of the highest ecosystems in the world. On clear days, Khangchendzonga may be visible from Gangtok.

1) boasting _____, deep valleys

a) Lush
b) Richly
c) Rush
d) Wealthy

Correct Choice: a

Solution

We need an adjective here to modify the noun VALLEYS. LUSH will fit here as it means rich and green, which would be suitable to describe how the valley looks. Thus, (a) is the right answer.

2) RICHLY is an adverb. RUSH is a verb which means to hurry. WEALTHY means financially well off.

The _____ landscape of this

a) Scenic
b) Stun
c) Scenery
d) Divinely

Correct Choice: a

Solution

We need an adjective here to modify the noun LANDSCAPE. The sentence talks about the beauty of the landscape of Sikkim. SCENIC means aesthetically beautiful and will fit here. Thus, (a) is the right answer.

STUN means surprise, but it is a verb. SCENERY is a noun. DIVINELY is an adverb.

3) is dotted with _____ traditional

a) Numerous
b) Number
c) Novel
d) Immutable

Correct Choice: a

Solution

We need an adjective here to modify the noun MONASTERIES. NUMEROUS means several and will fit here. Thus, (a) is the right answer.

NUMBER is a noun. NOVEL means new but it will contradict TRADITIONAL. Immutable - unchanging.

4) and guided _____ to the

a) Tripping
b) Expeditions
c) Excerpts
d) Extracts

Correct Choice: b

Solution

We need a noun here to be modified by the adjective GUIDED. EXPEDITIONS will fit here as the sentence talks about trips to a national park. Thus, (b) is the right answer.

TRIPPING means to fall over something. EXCERPTS and EXTRACTS refer to a part of a written text.

5) which reaches _____ of 4,000

a) Heights
b) Elevate
c) Range
d) Evidence

Correct Choice: a

Solution

We need a noun to form the object of the verb REACHES. HEIGHTS will fit here as the sentence talks about how high the peak is. Thus, (a) is the right answer.

ELEVATE means to raise and it is a verb. RANGE will be contextually inapt. Evidence - proof.

Error Location (6)

(6) In the following question, one part of the sentence may have an error. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select ‘No Error’ as your answer.

6) Jefferson ended the great public receptions, (A)/ and turned the State Dining Room, where (B)/ they had been held, into his office. (C)/ No error (D)

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

Correct Choice : c

Solution

The sentence is grammatically correct and free of error. Thus, (c) is the right answer.

Active – Passive Voice (7)

7) In the following question, a sentence has been given in Active/ Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice.

Sundarbans is being threatened by rising sea levels and extreme weather.

a) Rising sea levels and extreme weather are threatening Sundarbans.
b) Rising sea levels and extreme weather will be threatening Sundarbans.
c) Rising sea levels and extreme weather were threatening Sundarbans.
d) Rising sea levels and extreme weather had been threatening Sundarbans.

Correct Choice : a

Solution

The sentence is in indicative mood and passive voice. Follow the rules below to convert a sentence in indicative mood to active voice:

1. The subject clause will become the object clause. Here, the subject (SUNDARBANS) will change to the object of the verb, and the object (RISING SEA LEVELS AND EXTREME WEATHER) will change into the subject and begin the sentence.

2. Replace IS BEING THREATENED with ARE THREATENING.

3. Remove the conjunction BY before RISING SEA LEVELS AND EXTREME WEATHER.

Option (a) is the right answer.

Para Jumbled Sentences (8)

8) In the question given below, rearrange the sentences in the correct order, and choose the correct option.

P. This is the story of Sundarbans and how Volvo machinery is building tomorrow in a very unique part of the world.

Q. Along the Bay of Bengal, 4.5 million people are living under the constant threat of rising sea levels and recurring cyclones.

R. Tens of thousands of people have lost their homes the last decades.

S. A major source of protection is embankments and now, new ones are being built to protect the population.

a) SQRP
b) SPRQ
c) PQRS
d) PSQR

Correct Choice : c

Solution

PQRS is the final order. P begins the passage by introducing the main topic around which the passage revolves - the story of the Sundarbans and how Volvo machinery is helping change its future. Q follows by beginning the story - how many people are living under the constant threat of rising sea

levels and cyclones. R follows by telling us how so many people have lost their homes due to these threats. S concludes by telling us the course of action that is being taken to solve the problem. Thus, (c) is the right answer.

Phrasal Verbs/ Idioms (9)

9) In the following question, a sentence is given with a phrase or idiom in brackets. Select the option given below that can replace the bracketed phrase.

When funding shifts too drastically or is (cut off) altogether, then problems can dismantle research programmes anywhere.

a) cut down
b) cut across
c) cut back on
d) No Improvement

Correct Choice : d

Solution

(d) is the right answer. We need a phrase here that means to be stopped completely, as hinted by the use of the word ‘altogether’.

Cut down – reduced. Cut across – to go across a place rather than around it. Cut back on – to reduce. Cut off – stopped completely.

Single Fillers (10)

10) In the given sentence, a blank is given indicating that something is missing. From the given four options, choose the one that provides the correct word to be filled in the blank, thereby making the sentence grammatically and contextually correct.

Not even the _____ fan could resist becoming irate at the unfair referee calls.

a) Obvious
b) Equable
c) Equivalent
d) Ego

Correct Choice :b

Solution

(b) is the right answer. We need an adjective to modify the noun FAN. The context implies that some fans were unhappy with the referee calls. EQUABLE means not easily disturbed or angered; calm and even-tempered. Other words do not fit contextually.

OBVIOUS- easily perceived or understood; clear, self-evident, or apparent.

EQUIVALENT- equal in value, amount, function, meaning, etc.

EGO- a person's sense of self-esteem or self-importance.

Idioms (11)

11) In the following question , a sentence is given in which an idiom is highlighted. From the options below, choose the one that gives the correct meaning of the idiom.

This election is an eyewash, the leader has already been selected.

a) A deceptive action
b) A futile effort
c) An important day
d) An event or action that one is ashamed of

Correct Choice : a
Solution

‘Eyewash’ means “misleading or deceptive statements, actions, or procedures”. Thus, (a) is the correct answer.

Reading Comprehension (12-15)

(12-15) Directions: Read the following passage carefully and answer the questions.

About 37% of the area of the entire world is agricultural land, a third of which (about 11%) is used for crops. And as the population of the world rises to 9.7 billion people in 30 years, the land available for crops will reduce. Thus, there is an immediate need to try and improve the efficiency of food production. Experts predict that agricultural yield must increase by 50% between now and 2050. How to do this is the question facing agricultural scientists across the world.

Plants use sunlight to produce energy for their metabolism and food production. This is referred to as photosynthesis (wherein sunlight is used to make energy-rich molecules needed for producing food molecules). However, the efficiency of photosynthesis is rather low, just about 5% in most land crops. The most efficient land crop with 8% average is sugarcane, which is not all that edible, except for the sugar in it. If only we can increase the efficiency of crops such as wheat, rice and other grains! One such attempt is through the project RIPE (Realizing Increased Photosynthetic Efficiency), undertaken by a group of scientists at the University of Illinois at Urbana-Champaign in the US, supported by the Bill and Melinda Gates Foundation.

One way of achieving it has been shown in the model plant tobacco where the scientists could “engineer photosynthesis” by increasing the expression of three genes involved in processing light. This increases the tobacco yield by 20%. The team is trying to do the same genetic engineering method in other plants. One such plant is cassava (also called tapioca, sago or ‘sabudana’) whose roots are carbohydrate-rich, and eaten by over half a billion people in Latin America and parts of Africa; indeed it is eaten as a staple food in parts of Andhra, Kerala and the hilly areas of Assam. Genetic engineering of this plant was done, just as in tobacco, and appears to work.

Another way that some other scientists are trying is to reduce what is called photorespiration in plants. Here the energy and oxygen produced in the ‘light reaction’ of photosynthesis is drained by the plant to make “wasteful” products in the ‘dark reaction’, and not just carbohydrates and other food material, particularly when the plant’s leaves close in order to reduce water loss by evaporation. If we can find ways to reduce this photorespiration, edible food yields can go up.

12) As per the passage, which plant has the highest average efficiency of photosynthesis and what is that efficiency?

a) Sugarcane and 8% respectively.
b) Tobacco and 20% respectively.
c) Wheat and 5% respectively
d) Sago and 20% respectively.

Correct Choice : a

Solution

Refer to the line in the passage: “*The most efficient land crop with 8% average is sugarcane*”. Thus, (a) is the correct answer.

13) As per the passage, which of the following steps have been taken or can be taken to increase the efficiency of photosynthesis in plants?

1. Reduce photorespiration in plants.

2. Increasing the expression of certain genes

3. Increase the concentration of sunlight over the plants

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

Correct Choice : b

Solution

Refer to the line in the passage: "*Another way that some other scientists are trying is to reduce what is called photorespiration in plants*". Thus, 1 is a step that can be taken to increase the efficiency.

Refer to the line in the passage: "*shown in the model plant tobacco where the scientists could "engineer photosynthesis" by increasing the expression of three genes involved in processing light*". Thus, 2 is a step that has been taken to increase the efficiency of photosynthesis.

The passage states that plants use sunlight to make energy-rich molecules during photosynthesis. It does not say that the intensity of sunlight has an effect on the efficiency of photosynthesis. Thus, 3 is not a step that can be taken to increase the efficiency of photosynthesis.

Thus, (b) is the correct answer.

14) As per the passage, what is the end product of photosynthesis?

a) Sunlight
b) Energy-rich molecules
c) Water
d) Foodgrain

Correct Choice : b

Solution

The passage states that photosynthesis is the process wherein sunlight is used to make energy-rich molecules needed for producing food molecules. This means that in photosynthesis, sunlight is used to make energy-rich molecules. Thus, (b) is the correct answer.

15) As per the passage, what percentage of the world's area is used for growing crops?

a) 37%
b) 23%
c) 11%
d) 8%

Correct Choice : c

Solution

Refer to the line in the passage: "*About 37% of the area of the entire world is agricultural land, a third of which (about 11%) is used for crops*". Thus, (c) is the correct answer.

Error Location (16-17)

16) In the question below, a sentence is given, divided into five parts (A), (B), (C), (D) and (E). One of the parts is grammatically incorrect or has an error in it. You are required to identify the parts that are grammatically correct and choose the option accordingly.

Governments increasingly recognize (A)/ that economies can reach (B)/ their full potential only (C)/ with the full participation (D)/ of both women and men. (E)

a) ABCD
b) ACDE
c) ABDE
d) No error

Correct Choice : d

Solution

(d) is the right answer. The sentence is grammatically correct. It does not contain any error.

17) In the question below, a sentence is given, divided into five parts (A), (B), (C), (D) and (E). One of the parts is grammatically incorrect or has an error in it. You are required to identify the parts that are grammatically correct and choose the option accordingly.

Policymakers around the world already (A)/ recognize that they need to find a way to (B)/ reopen national economies safely and in (C)/ accordance to policies to keep the (D)/ COVID-19 pandemic under control. (E)

a) ABCE
b) ACDE
c) ABDE
d) BCDE

Correct Choice: a

Solution

(a) is the right answer. In D, we need to replace the phrase IN ACCORDANCE TO with IN ACCORDANCE WITH. If something is done IN

ACCORDANCE WITH a particular rule or system, it is done in the way that the rule or system says that it should be done. The phrase IN ACCORDANCE TO is incorrect.

Single Fillers (18)

18) In the given sentence, a blank is given indicating that something is missing. From the given options a combination of words would fit the blank thereby making it grammatically and contextually correct.

Part of the continuing allure of police action films is the chance to get under the skin of a criminal, to _____ into an alien world.

1. Peak

2. Glimpse

3. Peek

4. Glare

a) 1 and 2
b) 1 and 4
c) 2 and 3
d) 2 and 4

Correct choice: c

Solution

We need a base form verb to fit in the infinitive construction TO + VERB. GLIMPSE and PEEK mean to look into or get a view of, and will fit here as the sentence tells us how police action films allow us to get a view of an alien world. Thus, (c) is the right answer.

Peak (noun) - summit. Glare - to stare in an angry or fierce way.

Interchanging of Words (19-20)

(19-20) In the question below, a sentence is given with four words highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

19) There was little **doubt** that the process **complained** milk safety by **eliminating** the diseases that led to so many deaths, but consumers **improved** that pasteurized milk was flavourless.

a) doubt – eliminating
b) doubt – improved
c) complained – improved
d) eliminating -- improved

Correct Choice : c

Solution

The sentence tells us that there was little doubt (uncertainty) that the process improved (bettered) milk safety by eliminating (getting rid of) the diseases, but consumers complained (expressed dissatisfaction) that

pasteurized milk was flavourless. We need to interchange COMPLAINED and IMPROVED, as the former will agree with the subject CONSUMERS, and the latter will link the subject PROCESS with the object MILK SAFETY. Thus, (c) is the right answer.

(19-20) In the question below, a sentence is given with four words highlighted in bold. From the options, choose the pair of words that should be interchanged in order to make the sentence grammatically and meaningfully correct.

20) The **potential** of wind power to **oppose** ecosystems by killing or disturbing wildlife has been a concern **voiced** by both environmentalists and those who more broadly **damage** renewable energy.

a) potential – oppose
b) potential – damage
c) oppose – voiced
d) oppose -- damage

Correct Choice : d

Solution

The sentence tells us how the potential (capacity) of wind power to damage (harm) ecosystems by killing or disrupting wildlife has been a concern voiced (expressed) by both environmentalists and those who oppose (stand against) renewable energy. We need to interchange OPPOSE and DAMAGE, as the latter will take the object ECOSYSTEMS while the latter will take the object RENEWABLE ENERGY after it. Thus, (d) is the right answer.

Para Jumbled Sentences (21-23)

(21-23)Directions: A set of seven statements is given out of which the 1st and the 4th statements are fixed (A and D), and the rest are jumbled in any random order. Rearrange the remaining statements in the right order and answer the questions.

A. **It seems to be a law in the technology industry that leading companies eventually lose their positions**

B. But consumers' preferences were already shifting towards touch-screen smartphones.

C. It lost its market share in the space of just a few years.

D. **In 2007, Nokia accounted for more than 40% of mobile-phone sales worldwide.**

E. With the introduction of Apple's iPhone in the middle of that year, Nokia's market share shrunk rapidly and revenue plummeted.

F. By the end of 2013, Nokia had to sell its phone business to Microsoft.

G. Mobile-phone champion Nokia, one of Europe’s biggest technology success stories, was no exception.

21) Which of the following statements will follow A after rearrangement?

a) B
b) C
c) E
d) G

Correct Choice : d

Solution

(d) is the right answer. AGCDBEF is the correct sequence.

A begins the paragraph by establishing the subject: TECHNOLOGY INDUSTRY. The sentence seeks to convey that one of the unique trends in the technology industry is that the leading companies often lose their dominant position.

G follows A. It shifts the discussion to NOKIA. It tells us that NOKIA was one such company, which lost its leading position.

C follows G. The pronoun IT refers to NOKIA. It tells us that Nokia lost its position in just a few years.

D has been given to us as the fourth statement. It tells us that Nokia accounted for a significant portion of the mobile phone sales globally.

B follows D. It begins with the conjunction BUT, which is used to link contrasting sentences. It tells us that although Nokia was a dominant force at that time, consumers' preferences were also changing. The shift towards touch-screen smartphones was already underway.

E follows B. It tells us that after the launch of Apple’s iPhone, Nokia’s market share declined rapidly.

F ends the passage by telling us that Nokia finally had to sell its business to Microsoft in 2013.

22) Which of the following statements will follow D after rearrangement?

a) B
b) C
c) E
d) G

Correct Choice : a

Solution

(a) is the right answer. AGCDBEF is the correct sequence.

A begins the paragraph by establishing the subject: TECHNOLOGY INDUSTRY. The sentence seeks to convey that one of the unique trends in the technology industry is that the leading companies often lose their dominant position.

G follows A. It shifts the discussion to NOKIA. It tells us that NOKIA was one such company, which lost its leading position.

C follows G. The pronoun IT refers to NOKIA. It tells us that Nokia lost its position in just a few years.

D has been given to us as the fourth statement. It tells us that Nokia accounted for a significant portion of the mobile phone sales globally.

B follows D. It begins with the conjunction BUT, which is used to link contrasting sentences. It tells us that although Nokia was a dominant force at that time, consumers' preferences were also changing. The shift towards touch-screen smartphones was already underway.

E follows B. It tells us that after the launch of Apple’s iPhone, Nokia’s market share declined rapidly.

F ends the passage by telling us that Nokia finally had to sell its business to Microsoft in 2013.

23) Which of the following statements will follow E after rearrangement?

a) B
b) C
c) D
d) F

Correct Choice: d

Solution

(d) is the right answer. AGCDBEF is the correct sequence.

A begins the paragraph by establishing the subject: TECHNOLOGY INDUSTRY. The sentence seeks to convey that one of the unique trends in the technology industry is that the leading companies often lose their dominant position.

G follows A. It shifts the discussion to NOKIA. It tells us that NOKIA was one such company, which lost its leading position.

C follows G. The pronoun IT refers to NOKIA. It tells us that Nokia lost its position in just a few years.

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E follows B. It tells us that after the launch of Apple’s iPhone, Nokia’s market share declined rapidly.

F ends the passage by telling us that Nokia finally had to sell its business to Microsoft in 2013.

Error Location (24)

24) In the question below, a sentence is given, divided into five parts (A), (B), (C), (D) and (E). One of the parts is grammatically incorrect or has an error in it. You are required to identify the parts that are grammatically correct and choose the option accordingly.

As artificial intelligence and robotic technologies (A)/ advance faster then even their own developers (B)/ expected, studies are finding that many (C)/ of the occupations that employ (D)/ people can already be automated. (E)

a) ABCD
b) ACDE
c) ABDE
d) BCDE

Correct Choice: b

Solution

(b) is the right answer. In B, we need to replace THEN with THAN. THAN is used when talking about comparisons; THEN is used when talking about something relating to time. Here a comparison has been made between the expected pace of advancement of technologies and the actual one.

Reasoning Ability

Counting of Numbers (25)

25) How many triangles does the figure have?

a) 6
b) 2
c) 5
d) 7

Correct Choice: c

Solution

There are 5 triangles in the figure.

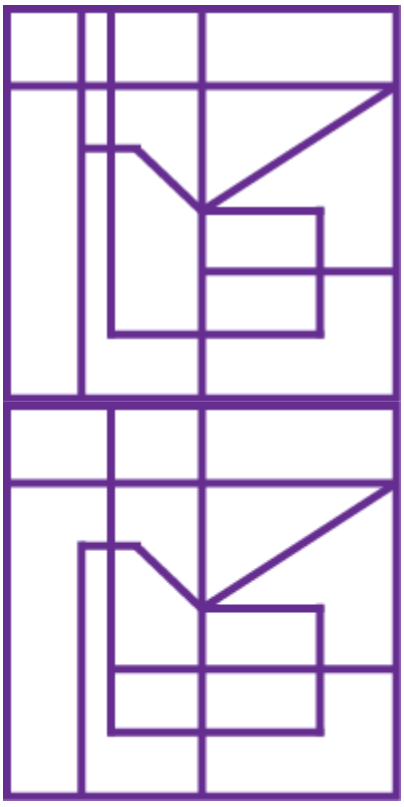
Hence, option c.

Mirror Image (26)

26) If a mirror is placed on the line OR, then which of the answer figures is the right image of the given figure?

a)

b)

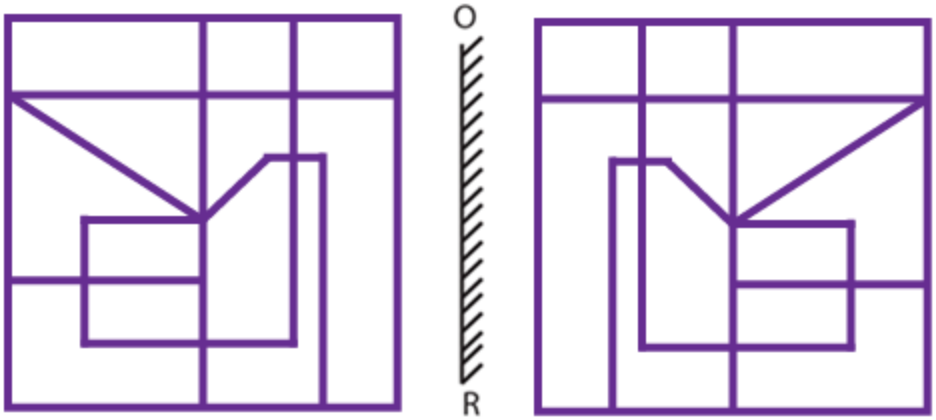


c) 

d) 

Correct Choice: c

Solution



Hence, option c.

Coding – Decoding (Matrix coding) (27)

27) 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 1st by its row and next by its column. Ex- 'A' can be represented by 20, 79 etc. and 'B' can be represented by 11, 67, 96 etc. Similarly, you have to identify the set of word 'PREVENT'.

Matrix - I

	0	1	2	3	4
0	K	H	T	R	E
1	P	B	C	S	T
2	A	L	N	G	D
3	H	K	R	B	M
4	P	N	F	E	S

Matrix - II

	5	6	7	8	9
5	J	R	G	D	W
6	K	N	B	G	Y

7	C	S	W	R	A
8	N	U	V	P	T
9	K	B	C	X	D

a) 10, 32, 34, 78, 22, 66, 14
b) 40, 56, 43, 87, 04, 85, 14
c) 40, 56, 43, 87, 04, 58, 14
d) 40, 65, 43, 87, 04, 85, 14

Correct Choice : b

Solution

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

P	R	E	V	E	N	T
10, 40, 88	03, 32, 56, 78	04, 43	87	04, 43	22, 66, 85, 41	02,14, 89

Hence, option b.

Syllogisms (28)

28) Three statements are given followed by three conclusions numbered I, II, and III assuming the statements to be true, even if they seem to be at variance with commonly known facts. Decide which of conclusions logically follow(s) from the statement.

Statements:

Some apples are bananas.

No bananas are guavas.

Mostly guavas are grapes.

Conclusions:

I. Some grapes are bananas.

II. Mostly guavas are apples.

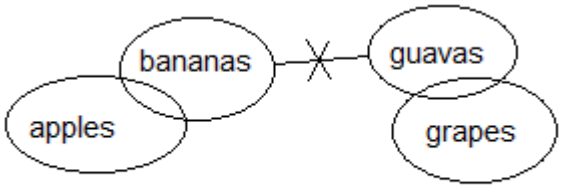
III. Some grapes are apples.

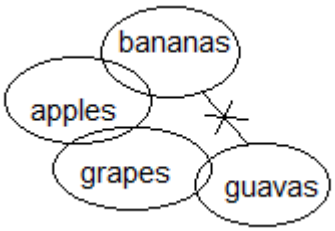
a) None follows
b) Only conclusion II follows
c) Conclusion II and conclusion III follow
d) Conclusion I and conclusion III follow

Correct Choice: a

Solution

Following figure can be formed from the statements.





None follows.

Hence, option a.

Inserting the Missing number (29)

29) Select the digit which can replace the ? from the given four alternatives.

8	9	12
4	7	6
3	5	2
9	11	?

a) 14
b) 16
c) 17
d) 15

Correct Choice: b

Solution

Given

8	9	12
4	7	6
3	5	2
9	11	?

The pattern is 8 + 4 - 3 = 9, 9 + 7 - 5 = 11, similarly, 12 + 6 - 2 = 16.

Hence, option b.

Alphabet Series (30)

30) A letter series is given below in which some letters are missing. Select the option that gives the letters that can fill these blanks in that order.

q_rs_uu_rrst_uq_rstuu

a) Rtqur
b) Qturq
c) Rsqur
d) Rtqru
Correct Choice: a

Solution

From option (a),

q r r s t u u / q r r s t u u / q r r s t u u

Hence, option a.

North – South Sitting Row arrangement (31-35)

(31-35) Directions: Answer the questions based on the information given below.

Ten persons A, B, C, D, E, F, G, H, I and J are sitting in two parallel rows i.e. Row 1 and Row 2. The persons are sitting in row 1 face south and the persons sitting in row 2 face north. Each of them works in different companies viz. Infosys, Wipro, HP, HCL, TCS, Tata, IBM, Samsung, Nokia and LG but not in the same order. The persons sitting in row I are sitting exactly opposite to the persons sitting in row 2 and are facing each other.

F works in HP and sits at one of the extreme ends. F sits opposite to the one who sits second to the left of J. I does not work in Nokia. E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. E and J are immediate neighbors. J faces south. C sits to the immediate right of the one who works in IBM. I does not work in IBM. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. The one who works in LG sits opposite to G, who works in TCS. A sits opposite to F.

31) Who sits 2nd to the right of D?

a) The one who works in HP
b) The one who works in HCL
c) The one who works in Nokia
d) The one who works in TCS

Correct Choice: d

Solution

Starting Point: Start with placing F and J as, F sits opposite to the one who sits 2nd to the left of J which means both J and F are not sitting in the same row.

Clues: E and J are immediate neighbors. J faces south. F works in HP and sits at one of the extreme ends. A sits opposite to F.

Inference: So, E either sits to the right or left of J. So, we have 2 cases.

Case I: When E sits to the left of J in row 1:

Row - 1			J	E	A
Row - 2					F(HP)

Case II: When E sits to the right of J in row 1:

Row - 1		E	J		A

Row - 2					F(HP)

Clues: E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. C sits to the immediate right of the one who works in IBM.

Inference: So, case II is rejected because E sits opposite to the one who sits 2nd to the right of the one works in Tata which is not possible in case II. Also, A must be working in Infosys so, that C sits immediate right of the one who works in IBM.

Row - 1		B(Wipro)	J	E	A(Infosys)
Row - 2	(IBM)	C (Tata)		H(HCL)	F(HP)

Clues: The one who works in LG sits opposite to G, who works in TCS. I does not work in Nokia. I does not work in IBM.

Inference: So, J must be working in LG so, that G sits opposite to the one who works in LG. Also, E works in Nokia and I works in Samsung.

The final arrangement is as follows:

Row - 1	I(Samsung)	B(Wipro)	J (LG)	E (Nokia)	A(Infosys)
Row - 2	D(IBM)	C (Tata)	G(TCS)	H(HCL)	F(HP)

The one who works in TCS sits 2nd to the right of D.

Hence, option d.

32) Who sits opposite to the one who works in Tata?

a) I
b) D
c) B
d) F

Correct Choice: c

Solution

Starting Point: Start with placing F and J as, F sits opposite to the one who sits 2nd to the left of J which means both J and F are not sitting in the same row.

Clues: E and J are immediate neighbors. J faces south. F works in HP and sits at one of the extreme ends. A sits opposite to F.

Inference: So, E either sits to the right or left of J. So, we have 2 cases.

Case I: When E sits to the left of J in row 1:

Row - 1			J	E	A
Row - 2					F(HP)

Case II: When E sits to the right of J in row 1:

Row - 1		E	J		A
Row - 2					F(HP)

Clues: E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. C sits to the immediate right of the one who works in IBM.

Inference: So, case II is rejected because E sits opposite to the one who sits 2nd to the right of the one works in Tata which is not possible in case II. Also, A must be working in Infosys so, that C sits immediate right of the one who works in IBM.

Row - 1		B(Wipro)	J	E	A(Infosys)
Row - 2	(IBM)	C (Tata)		H(HCL)	F(HP)

Clues: The one who works in LG sits opposite to G, who works in TCS. I does not work in Nokia. I does not work in IBM.

Inference: So, J must be working in LG so, that G sits opposite to the one who works in LG. Also, E works in Nokia and I works in Samsung.

The final arrangement is as follows:

Row - 1	I(Samsung)	B(Wipro)	J (LG)	E (Nokia)	A(Infosys)
Row - 2	D(IBM)	C (Tata)	G(TCS)	H(HCL)	F(HP)

B sits opposite to the one who works in Tata.

Hence, option c.

33) Who sits 3rd to the left of the one who works in Samsung?

a) E
b) J
c) F
d) D

Correct Choice: a

Solution

Starting Point: Start with placing F and J as, F sits opposite to the one who sits 2nd to the left of J which means both J and F are not sitting in the same row.

Clues: E and J are immediate neighbors. J faces south. F works in HP and sits at one of the extreme ends. A sits opposite to F.

Inference: So, E either sits to the right or left of J. So, we have 2 cases.

Case I: When E sits to the left of J in row 1:

Row - 1			J	E	A
Row - 2					F(HP)

Case II: When E sits to the right of J in row 1:

Row - 1		E	J		A
Row - 2					F(HP)

Clues: E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. C sits to the immediate right of the one who works in IBM.

Inference: So, case II is rejected because E sits opposite to the one who sits 2nd to the right of the one works in Tata which is not possible in case II. Also, A must be working in Infosys so, that C sits immediate right of the one who works in IBM.

Row - 1		B(Wipro)	J	E	A(Infosys)
Row - 2	(IBM)	C (Tata)		H(HCL)	F(HP)

Clues: The one who works in LG sits opposite to G, who works in TCS. I does not work in Nokia. I does not work in IBM.

Inference: So, J must be working in LG so, that G sits opposite to the one who works in LG. Also, E works in Nokia and I works in Samsung.

The final arrangement is as follows:

Row - 1	I(Samsung)	B(Wipro)	J (LG)	E (Nokia)	A(Infosys)
Row - 2	D(IBM)	C (Tata)	G(TCS)	H(HCL)	F(HP)

E sits 3rd to the left of the one who works in Samsung.

Hence, option a.

34) Who works in IBM?

a) The one who sits immediate right of A
b) The one who sits 2nd to the right of B
c) The one who sits immediate right of C
d) The one who sits opposite to I

Correct Choice: d

Solution

Starting Point: Start with placing F and J as, F sits opposite to the one who sits 2nd to the left of J which means both J and F are not sitting in the same row.

Clues: E and J are immediate neighbors. J faces south. F works in HP and sits at one of the extreme ends. A sits opposite to F.

Inference: So, E either sits to the right or left of J. So, we have 2 cases.

Case I: When E sits to the left of J in row 1:

Row - 1			J	E	A
Row - 2					F(HP)

Case II: When E sits to the right of J in row 1:

Row - 1		E	J		A
Row - 2					F(HP)

Clues: E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. C sits to the immediate right of the one who works in IBM.

Inference: So, case II is rejected because E sits opposite to the one who sits 2nd to the right of the one works in Tata which is not possible in case II. Also, A must be working in Infosys so, that C sits immediate right of the one who works in IBM.

Row - 1		B(Wipro)	J	E	A(Infosys)
Row - 2	(IBM)	C (Tata)		H(HCL)	F(HP)

Clues: The one who works in LG sits opposite to G, who works in TCS. I does not work in Nokia. I does not work in IBM.

Inference: So, J must be working in LG so, that G sits opposite to the one who works in LG. Also, E works in Nokia and I works in Samsung.

The final arrangement is as follows:

Row - 1	I(Samsung)	B(Wipro)	J (LG)	E (Nokia)	A(Infosys)
Row - 2	D(IBM)	C (Tata)	G(TCS)	H(HCL)	F(HP)

The one who sits opposite to I i.e. D works in IBM.

Hence, option d.

35) Find the odd one out?

a) A
b) C
c) D
d) I

Correct Choice: b

Solution

Starting Point: Start with placing F and J as, F sits opposite to the one who sits 2nd to the left of J which means both J and F are not sitting in the same row.

Clues: E and J are immediate neighbors. J faces south. F works in HP and sits at one of the extreme ends. A sits opposite to F.

Inference: So, E either sits to the right or left of J. So, we have 2 cases.

Case I: When E sits to the left of J in row 1:

Row - 1			J	E	A
Row - 2					F(HP)

Case II: When E sits to the right of J in row 1:

Row - 1		E	J		A

Row - 2					F(HP)

Clues: E sits opposite to the one who sits second to the right of the one who works in Tata. H works in HCL. Only one person sits between the one who works in Tata and the one who works in HCL. B works in Wipro and sits third to the right of the one who works in Infosys. B sits opposite to C. C sits to the immediate right of the one who works in IBM.

Inference: So, case II is rejected because E sits opposite to the one who sits 2nd to the right of the one works in Tata which is not possible in case II. Also, A must be working in Infosys so, that C sits immediate right of the one who works in IBM.

Row - 1		B(Wipro)	J	E	A(Infosys)
Row - 2	(IBM)	C (Tata)		H(HCL)	F(HP)

Clues: The one who works in LG sits opposite to G, who works in TCS. I does not work in Nokia. I does not work in IBM.

Inference: So, J must be working in LG so, that G sits opposite to the one who works in LG. Also, E works in Nokia and I works in Samsung.

The final arrangement is as follows:

Row - 1	I(Samsung)	B(Wipro)	J (LG)	E (Nokia)	A(Infosys)
Row - 2	D(IBM)	C (Tata)	G(TCS)	H(HCL)	F(HP)

All are sitting at the extreme ends of the row except C.

Hence, option b.

Logical Inequalities (36)

36) In the question, relationship between some elements is shown in the statements (s). These statements are followed by two conclusions. Read the statements and give answer.

Statements: Q ≤ D ≥ E > F; H = F > X ≥ Y

Conclusions:

I. D > Y

II. E> H

a) Only conclusion I is true
b) Only conclusion II is true
c) Either conclusion I or II is true
d) Both conclusions I and II are true

Correct Choice: d

Solution

Given statement: Q ≤ D ≥ E > F; H = F > X ≥ Y

On combining statements, we get,

D ≥ E > F > X ≥ Y and D ≥ E > F = H

Conclusions:

I. D > Y: True (As, D ≥ E > F > X ≥ Y, so, D > Y)

II. E > H: True (As, E > F = H, so, E >H)

Hence, option d.

Syllogisms (37-38)

37) In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

Only a few cotton is jean

All jean is shirt

All shirt is trouser

Conclusions

I. Some shirt is not cotton

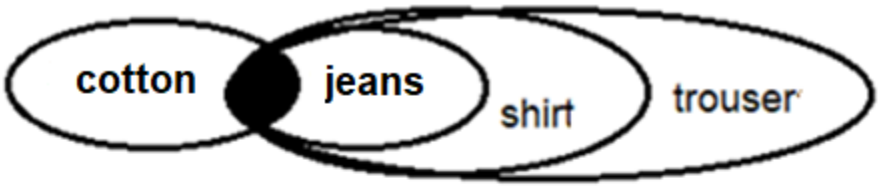
II. Some cotton is not trouser

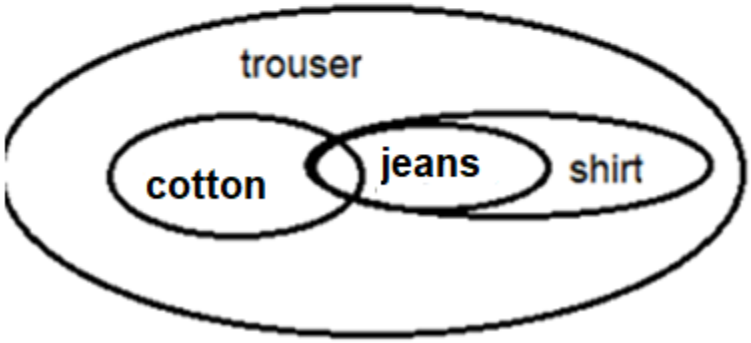
a) Only conclusion I follows
b) Both the conclusions I and II follow
c) Neither conclusion I nor II follows
d) Only conclusion II follows

Correct Choice : c

Solution

Following figures can be formed from the statements.





So, neither conclusion I nor II follows.

Hence, option c.

38) In the question below there are three statements followed by two conclusions I and II. You have to take the three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the three statements disregarding commonly known facts.

Statements:

Only group is single

Some group is online

Some online is offline

Conclusions:

I. No single is online

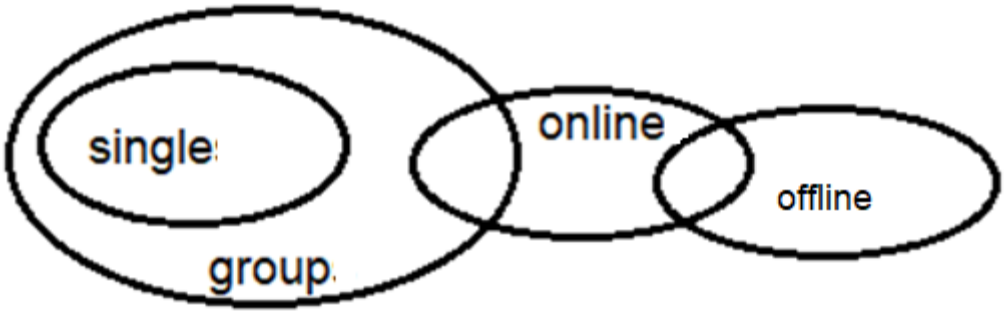
II. All single being offline is a possibility

a) Only conclusion I follows
b) Both the conclusions I and II follow
c) Neither conclusion I nor II follow
d) Only conclusion II follows

Correct Choice : a

Solution

Following figure can be formed from the statements.

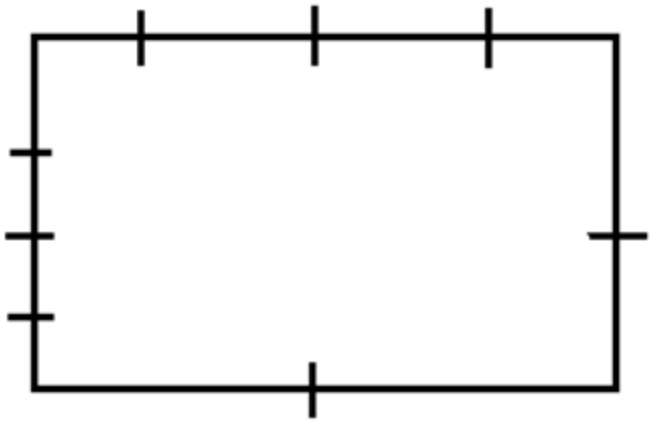


Since, only group is single is given which means all single is only part of group so, conclusion I follows.

Hence, option a.

(39-40) Directions: Answer the questions based on the information given below.

Eight persons P, Q, R, S, T, U, V and W are sitting in eight seats around a rectangular table such that three persons are sitting on one of the longer side and three are sitting on one of the shorter side and one is sitting on other longer and one is sitting on other shorter side of the table. Also, one of the three who are sitting on longer side and the one who sits alone on the shorter side are facing away from the table and rest all are facing towards the table.



P and T are not adjacent to each other. P sits on longer side and S sits third to the left of P, who does not sit in the middle of the longer side. Two persons sit between S and W. R and Q are not immediate neighbors of each other. T faces away from the centre and U sits 2nd to the left of T. Q sits second to the right of V.

Rectangular Sitting arrangement (39-40)

39) Who sits immediate right of T?

a) V
b) Q
c) S
d) W

Correct Choice : b

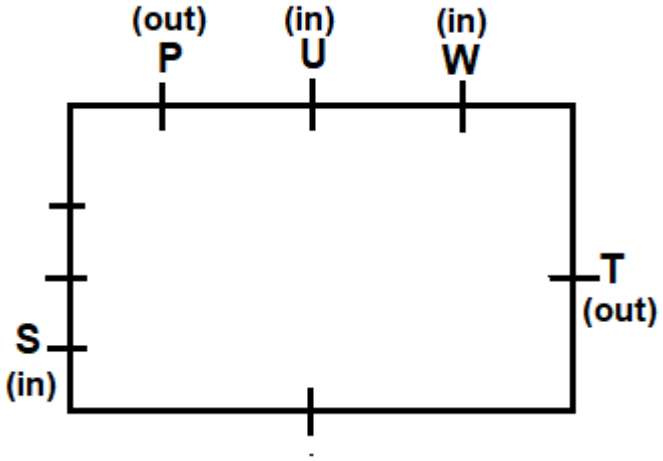
Solution

Starting Point: As, P sits in the longer side of table but does not sit in the middle of longer side so, start with placing P and S as S sits 3rd to the left of P so, P either face away or towards the table.

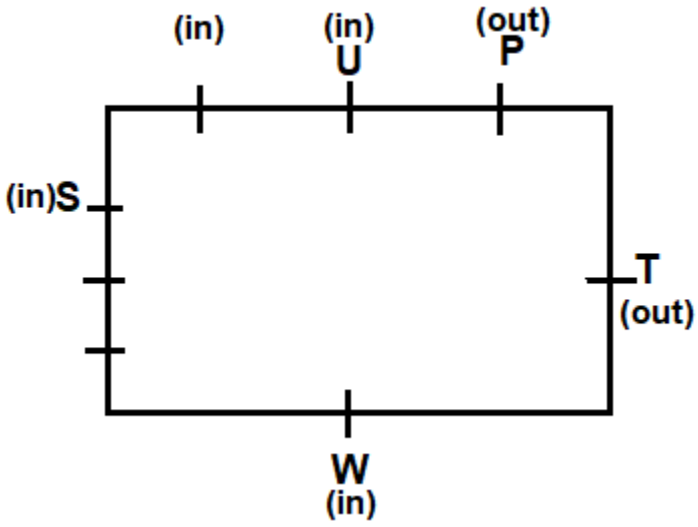
Clues: Two persons sit between S and W. T faces away from the centre and U sits 2nd to the left of T. P and T are not adjacent to each other.

Inference: So, there are 4 possibilities of P i.e. either P faces away and sit either of the two seats of longer side or P faces towards and sits either of the two seats of longer sides. Now, T and P are not adjacent to each other and T faces outside which means T either sit alone in shorter side or sit in longer side so, two of the possibilities are rejected here. So, we have left with two possibilities of P faces away from the table.

Case I: When P sitting immediate right of U:



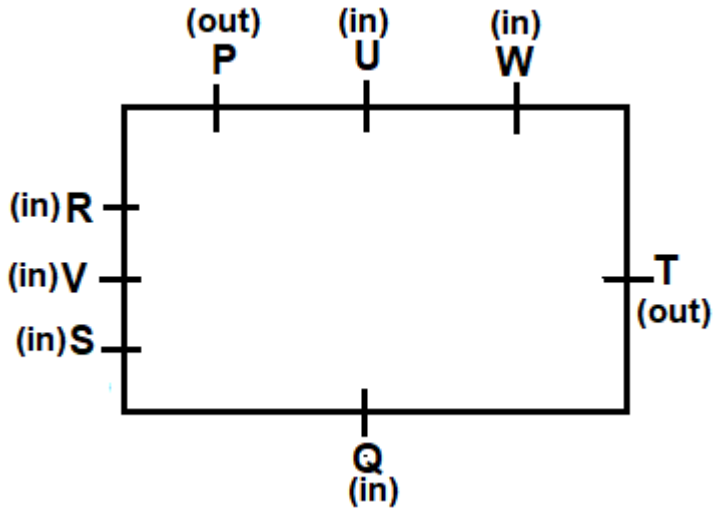
Case II: When P sits immediate left of U:



Clues: Q sits second to the right of V. R and Q are not immediate neighbors of each other.

Inference: So, in case II, V must be sitting adjacent to U and Q is sitting adjacent to S which means R must be sitting adjacent to Q so, case II is rejected.

The final arrangement is as follows:



Q sits immediate right of T.

Hence, option b.

40) Who sits immediate left of R?

a) U
b) Can’t be determined
c) W
d) P

Correct Choice: d

Solution

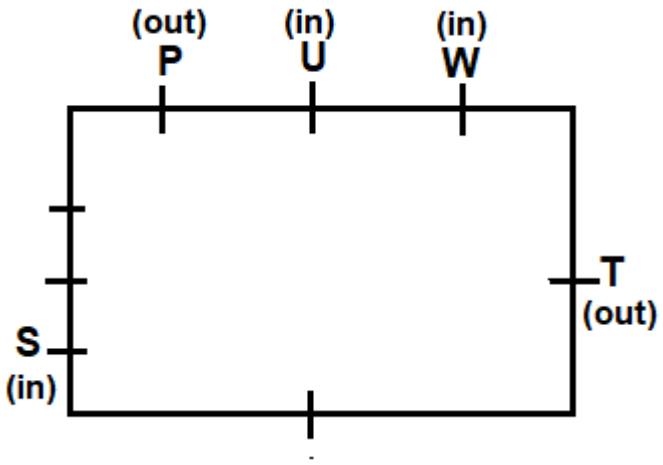
Starting Point: As, P sits in the longer side of table but does not sit in the middle of longer side so, start with placing P and S as S sits 3rd to the left of P so, P either face away or towards the table.

Clues: Two persons sit between S and W. T faces away from the centre and U sits 2nd to the left of T. P and T are not adjacent to each other.

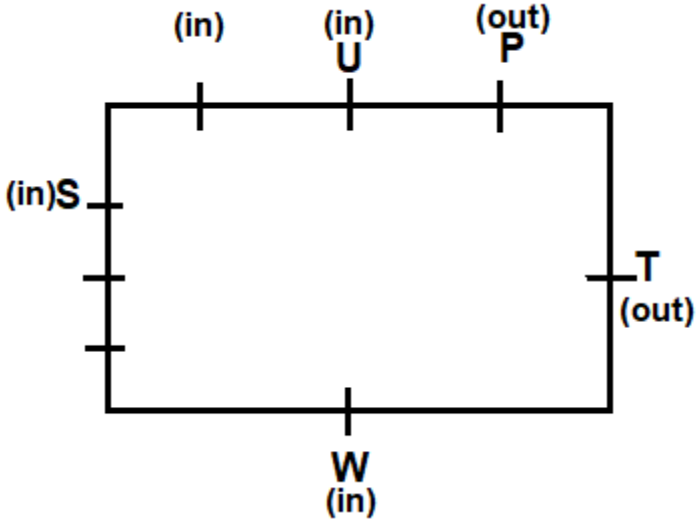
Inference: So, there are 4 possibilities of P i.e. either P faces away and sit either of the two seats of longer side or P faces towards and sits either of the two seats of longer sides. Now, T and P are not adjacent to each other and T faces outside which means T either sit alone in shorter side or sit in

longer side so, two of the possibilities are rejected here. So, we have left with two possibilities of P faces away from the table.

Case I: When P sitting immediate right of U:



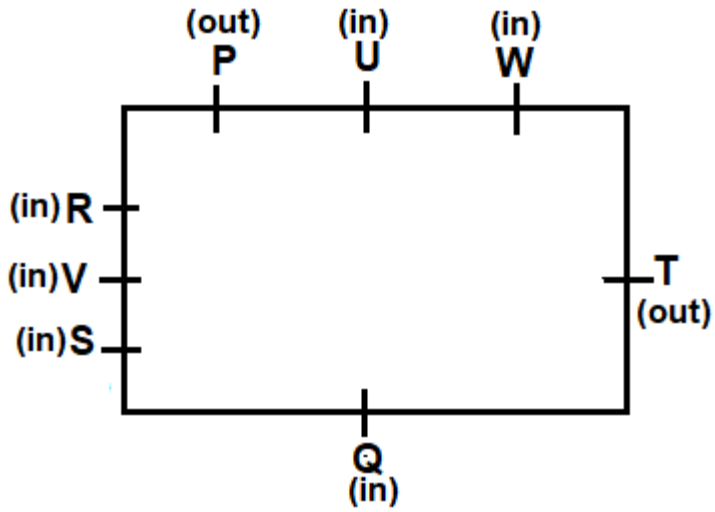
Case II: When P sits immediate left of U:



Clues: Q sits second to the right of V. R and Q are not immediate neighbors of each other.

Inference: So, in case II, V must be sitting adjacent to U and Q is sitting adjacent to S which means R must be sitting adjacent to Q so, case II is rejected.

The final arrangement is as follows:



P sits immediate left of R.

Hence, option d.

Ordering & Ranking (41-42)

(41-42) Directions: Answer the questions based on the information given below.

There are seven students A, B, C, D, E, F and G, who secured different marks in an examination. A secured more than D, but less than G. F secured more than only B and C. G doesn't secure the highest marks. The one who secured the second lowest marks scored 48 and the one who secured the highest marks scored 78 marks.

41) If C secured 12 marks more than B, then what is the sum of the marks obtained by B and E?

a) 114
b) 112
c) 116
d) 122

Correct Choice: a

Solution

F secured more than only B and C. A secured less than G who does not secure the highest marks which means E secured the highest marks.

E(78) > G > A > D > F > B/C(48)> C/B

So, if the marks obtained by C is 12 more than B which means B secured 36 marks so, the sum of B and E is 114(36+78).

Hence, option a.

42) Who secured the highest marks?

a) A
b) B
c) E
d) C

Correct Choice: c

Solution

F secured more than only B and C. A secured less than G who does not secure the highest marks which means E secured the highest marks.

E(78) > G > A > D > F > B/C(48)> C/B

E secured the highest marks.

Hence, option c.

Months Based Puzzle (43-47)

(43-47) Directions: Answer the questions based on the information given below.

Seven persons P, Q, R, S, T, U and V likes 7 IPL teams KKR, RCB, DD, CSK, SRH, KXIP and RR but not in the same order. They have their birthdays on 8th of different months viz. January, March, April, June, July, September and December of the same year but not necessarily in the same order.

P does not like RCB. V's birthday does not fall in January. P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. The one who likes CSK has birthday in April. Q's birthday month is immediately before U's birthday month. S does not like RR. The ones who like RR and SRH have their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. T's birthday falls in the month having 30 days but before September. R has his birthday in December. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

43) Who likes SRH team?

a) P
b) S
c) R
d) T

Correct Choice: b

Solution

Starting Point: Start with the direct information we have i.e. R has his birthday in December. The one who likes CSK has birthday in April.

Clues: P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. Q's birthday month is immediately before U's birthday month. T's birthday falls in the month having 30 days but before September.

Inference: So, both P and U have their birthday in the month having 31 days which means they have birthday on one of the months among January, March, July and December but Q's birthday is after the birthday of P also, R has birthday in December. Now, Q's birthday must be in June as his birthday month followed by birthday month of U who has birthday in month having 31 days so, U has birthday in July, and P has birthday either in January or March. T must have his birthday in April.

Months	Persons	Teams
January	P/	
March	P/	
April	T	CSK
June	Q	
July	U	

September		
December	R	

Clues: P does not like RCB. V's birthday does not fall in January. The ones who like RR and SRH has their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. S does not like RR. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

Inference: So, V has his birthday in March because he has birthday before Q but not in January which means S has his birthday in September. Now, R must like RCB as the one who likes RCB has his birthday in month having 31 days. Also, S must like SRH as the ones who like RR and SRH have their birthday in the month having 30 days but S does not like RR.

The final arrangement is as follows:

Months	Persons	Teams
January	P	DD
March	V	KXIP
April	T	CSK
June	Q	RR
July	U	KKR
September	S	SRH
December	R	RCB

S likes SRH team.

Hence, option b.

44) Who among the following has birthday in June?

a) The one who likes CSK
b) P
c) The one who likes DD
d) The one who likes RR

Correct Choice: d

Solution

Starting Point: Start with the direct information we have i.e. R has his birthday in December. The one who likes CSK has birthday in April.

Clues: P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. Q's birthday month is immediately before U's birthday month. T's birthday falls in the month having 30 days but before September.

Inference: So, both P and U have their birthday in the month having 31 days which means they have birthday on one of the months among January, March, July and December but Q's birthday is after the birthday of P also, R has birthday in December. Now, Q's birthday must be in June as his birthday month followed by birthday month of U who has birthday in month having 31 days so, U has birthday in July, and P has birthday either in January or March. T must have his birthday in April.

Months	Persons	Teams

January	P/	
March	P/	
April	T	CSK
June	Q	
July	U	
September		
December	R	

Clues: P does not like RCB. V's birthday does not fall in January. The ones who like RR and SRH has their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. S does not like RR. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

Inference: So, V has his birthday in March because he has birthday before Q but not in January which means S has his birthday in September. Now, R must like RCB as the one who likes RCB has his birthday in month having 31 days. Also, S must like SRH as the ones who like RR and SRH have their birthday in the month having 30 days but S does not like RR.

The final arrangement is as follows:

Months	Persons	Teams
January	P	DD
March	V	KXIP
April	T	CSK
June	Q	RR

July	U	KKR
September	S	SRH
December	R	RCB

The one who likes RR team has birthday in June.

Hence, option d

45) ___ has birthday in March?

a) V
b) The one who likes KXIP
c) Either T or P
d) Both (a) or (b)

Correct Choice: d

Solution

Starting Point: Start with the direct information we have i.e. R has his birthday in December. The one who likes CSK has birthday in April.

Clues: P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. Q's birthday month is immediately before U's birthday month. T's birthday falls in the month having 30 days but before September.

Inference: So, both P and U have their birthday in the month having 31 days which means they have birthday on one of the months among January, March, July and December but Q's birthday is after the birthday of P also, R has birthday in December. Now, Q's birthday must be in June as his birthday month followed by birthday month of U who has birthday in month having 31 days so, U has birthday in July, and P has birthday either in January or March. T must have his birthday in April.

Months	Persons	Teams
January	P/	
March	P/	

April	T	CSK
June	Q	
July	U	
September		
December	R	

Clues: P does not like RCB. V's birthday does not fall in January. The ones who like RR and SRH has their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. S does not like RR. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

Inference: So, V has his birthday in March because he has birthday before Q but not in January which means S has his birthday in September. Now, R must like RCB as the one who likes RCB has his birthday in month having 31 days. Also, S must like SRH as the ones who like RR and SRH have their birthday in the month having 30 days but S does not like RR.

The final arrangement is as follows:

Months	Persons	Teams
January	P	DD
March	V	KXIP
April	T	CSK
June	Q	RR
July	U	KKR
September	S	SRH

December	R	RCB

V likes KXIP team and has birthday in March.

Hence, option d

46) How many persons have birthday in between the birthdays of U and P?

a) Two
b) One
c) Three
d) None

Correct Choice: c

Solution

Starting Point: Start with the direct information we have i.e. R has his birthday in December. The one who likes CSK has birthday in April.

Clues: P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. Q's birthday month is immediately before U's birthday month. T's birthday falls in the month having 30 days but before September.

Inference: So, both P and U have their birthday in the month having 31 days which means they have birthday on one of the months among January, March, July and December but Q's birthday is after the birthday of P also, R has birthday in December. Now, Q's birthday must be in June as his birthday month followed by birthday month of U who has birthday in month having 31 days so, U has birthday in July, and P has birthday either in January or March. T must have his birthday in April.

Months	Persons	Teams
January	P/	

March	P/	
April	T	CSK
June	Q	
July	U	
September		
December	R	

Clues: P does not like RCB. V's birthday does not fall in January. The ones who like RR and SRH has their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. S does not like RR. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

Inference: So, V has his birthday in March because he has birthday before Q but not in January which means S has his birthday in September. Now, R must like RCB as the one who likes RCB has his birthday in month having 31 days. Also, S must like SRH as the ones who like RR and SRH have their birthday in the month having 30 days but S does not like RR.

The final arrangement is as follows:

Months	Persons	Teams
January	P	DD
March	V	KXIP
April	T	CSK
June	Q	RR
July	U	KKR

September	S	SRH
December	R	RCB

Three persons have birthdays in between the birthdays of U and P.

Hence, option c.

47) Find the odd one out?

a) S
b) V
c) P
d) U

Correct Choice: a

Solution

Starting Point: Start with the direct information we have i.e. R has his birthday in December. The one who likes CSK has birthday in April.

Clues: P's birthday falls in the month which have 31 days. Q's birthday month is after P's birthday month. U's birthday falls in the month having 31 days. Q's birthday month is immediately before U's birthday month. T's birthday falls in the month having 30 days but before September.

Inference: So, both P and U have their birthday in the month having 31 days which means they have birthday on one of the months among January, March, July and December but Q's birthday is after the birthday of P also, R has birthday in December. Now, Q's birthday must be in June as his birthday month followed by birthday month of U who has birthday in month having 31 days so, U has birthday in July, and P has birthday either in January or March. T must have his birthday in April.

Months	Persons	Teams
January	P/	
March	P/	
April	T	CSK
June	Q	
July	U	
September		
December	R	

Clues: P does not like RCB. V's birthday does not fall in January. The ones who like RR and SRH has their birthday in the month which have 30 days. The one who likes RCB has his birthday in the month which has 31 days. S does not like RR. V and U like KXIP and KKR teams respectively. V's birthday falls before Q's birthday. V's birthday is not in June.

Inference: So, V has his birthday in March because he has birthday before Q but not in January which means S has his birthday in September. Now, R must like RCB as the one who likes RCB has his birthday in month having 31 days. Also, S must like SRH as the ones who like RR and SRH have their birthday in the month having 30 days but S does not like RR.

The final arrangement is as follows:

Months	Persons	Teams
January	P	DD
March	V	KXIP
April	T	CSK

June	Q	RR
July	U	KKR
September	S	SRH
December	R	RCB

All of them have birthdays in the months having 31 days except S.

Hence, option a.

Distance & Direction (48-49)

(48-49) Directions: Answer the questions based on the information given below.

Rani started her journey from point ‘P’ and walked 10km eastwards to reach point ‘Q’ then she turned to her left and walked 3km to reach point ‘R’ and then she turned to her left again and walked 12km to reach point ‘S’. Again, she turned to her left and walked 3km to reach point ‘T’.

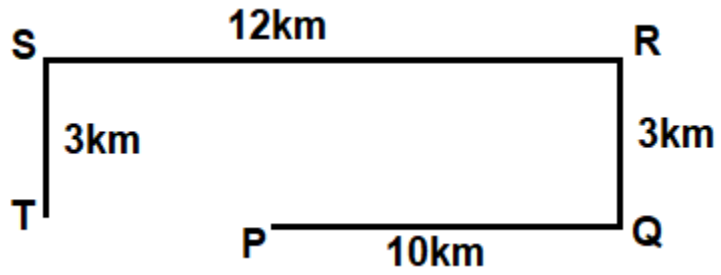
48) If point Z is south west of P and 8km south of point S then what is the shortest distance between point Z and point Q?

a) 10km
b) 13km
c) 8km
d) 11km

Correct Choice: b

Solution

According to the information given following figure can be formed:

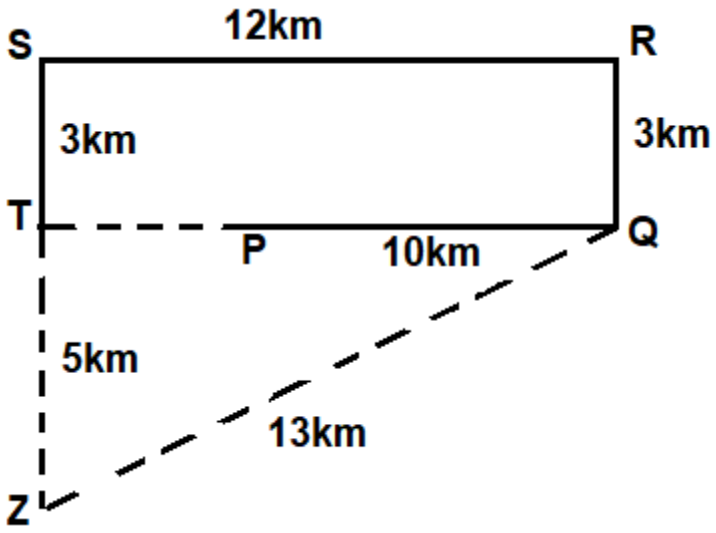


So, the shortest distance between point Z and point Q must be 13 km according to Pythagoras Theorem

$TZ^2 + TQ^2 = QZ^2$

$5^2 + 12^2 = QZ^2$

QZ = 13.



Hence, option b.

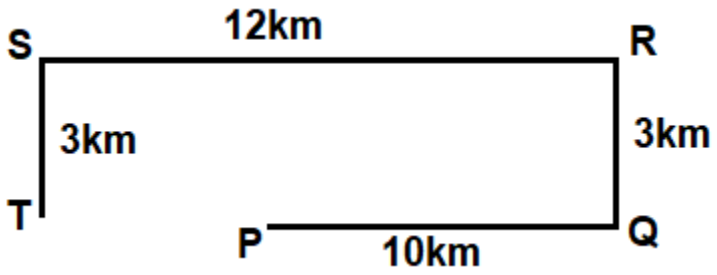
49) Point T is in which direction with respect to the point R?

a) South west
b) North west
c) North east
d) South east

Correct Choice: a

Solution

According to the information given following figure can be formed:



Point T is in south west of point R.

Hence, option a.

Alphabets, Numbers, Symbols sequence puzzle (50-51)

(50-51) Directions: Study the given arrangement of number alphabets, numbers and symbols and answer the questions based on it.

7 O # % H & 6 8 @ P 3 E * 5 I $ 7 2 B ^ 4 & 1 L

50) In the given arrangement, how many such alphabets are there which are immediately preceded by a number, which is equal to their alphabetic positions?

a) 3
b) 2
c) 4
d) 1

Correct Choice: d

Solution

Given series:

7 O # % H & 6 8 @ P 3 E * 5 I $ 7 2 B ^ 4 & 1 L

There is only one such number, which is immediately preceded by a number equals to their alphabetic position.

Hence, option d.

51) What is the sum of the numbers between ‘H’ and ‘@’ in the given arrangement?

a) 9
b) 14
c) 15
d) 8

Correct Choice: b

Solution

Given series:

7 O # % H & 6 8 @ P 3 E * 5 I $ 7 2 B ^ 4 & 1 L

The sum of the numbers between ‘H’ and ‘@’ is 14(6+8).

Hence, option b.

Logical Inequalities (52)

52) In the question, relationship between some elements is shown in the statements (s). These statements are followed by two conclusions. Read the statements and give answer.

Statements: P ≥ Q ≤ R < S; T ≥ U < S ≤ V

Conclusions:

I. U < R

II. P ≥ S

a) Only conclusion I is true
b) Only conclusion II is true
c) Either conclusion I or II is true

d) Neither conclusion I nor II is true

Correct Choice: d

Solution

Given statement: P ≥ Q ≤ R < S; T ≥ U < S ≤ V

On combining statements, we get,

Q ≤ R < S ≤ V; P ≥ Q ≤ R < S ≤ V

Conclusions:

I. U < R: False (As, U < S > R, we cannot establish the exact relation between U and R)

II. P ≥ S: False (As, P ≥ Q ≤ R < S, we cannot establish the exact relation between P and S)

Hence, option d.

Alphabet test (Letter word problems) (53)

53) How many pairs of alphabets are there in the word ‘EXPLANATION’ which has as many letters between them in the word as in the alphabetical series?

a) Three

b) Four
c) One
d) Two

Correct Choice: a

Solution

Given word

‘EXPLANATION’ so, there are four such pairs i.e. AE, NL and NO

Hence, option a.

Alphabet-numeric Series (54)

54) Which of the following pair replaces ? in series given.

?, JM12, ?, BW22

a) NH6, FQ17
b) NH7, FR17
c) OH7, EQ16
d) NG7, FR18

Correct Choice: d

Solution

Given series

?, JM12, ?, BW22

N – 4 = J, J – 4 = F, F – 4 = B

H + 5 = M, M + 5 = R, R + 5 = W

7 + 5 = 12, 12 + 5 = 17, 17 + 5 = 22

Hence, option b.

Numerical Ability

Discounts (55)

55) An article is marked up by 120% above its cost price and then sold for Rs. 1320 after giving 20% discount. Find the cost price of the article.

a) Rs. 600
b) Rs. 750
c) Rs. 960
d) Rs. 840

Correct Choice: b

Solution

Let the cost price of the article be Rs. ‘x’

According to the question,

2.2 × 0.8x = 1320

Or, x = 1320/1.76 = Rs. 750

Hence, option b.

Time & Work (56)

56) Amar is 4 times more efficient than Amish. Both working together can complete the work in 12 days. Find the number of days taken by Amar to complete the work alone.

a) 16 days
b) 15.8 days
c) 12.5 days
d) 14.4 days

Correct Choice: d

Solution

Let the efficiency of Amish be x units/day

Therefore, efficiency of Amar = 4x + x = 5x units/day

Total work = (5x + x) × 12 = 72x units

Time taken by Amar to complete the whole work alone = 72x/5x = 14.4 days

Hence, option d.

Ratios & Proportions (57)

57) In a bag there are coins of Rs. 1, Rs. 2, 25 paise and 50 paise in the ratio 4:2:5:3, respectively. If the total amount in the bag is Rs. 172. Find the difference between the number of Rs. 1 coins and 50 paise coins.

a) 16
b) 12
c) 18
d) 14

Correct Choice: a

Solution

Let the number of coins of Rs. 1, Rs. 2, 25 paise and 50 paise be 4x, 2x, 5x and 3x respectively

According to the question,

$4x + (2 \times 2x) + (5x/4) + (3x/2) = 172$

Or, $16x + 16x + 5x + 6x = 172 \times 4$

Or, $x = (172 \times 4)/43$

Or, $x = 16$

Required difference = $(4x – 3x) = x = 16$

Hence, option a.

Time & Distance (58)

58) Two cyclists ‘A’ and ‘B’ are coming towards each other with a speed of 25 km/hr and 30 km/hr. If both of them meet after 48 minutes after starting and both start at the same time, then find the distance between them at the time they start.

a) 38 km
b) 36 km
c) 42 km
d) 44 km

Correct Choice: d

Solution

Required distance = (25 + 30) × (48/60) = 44 km

Hence, option d.

Algebra (59)

59) If (17/6) + (3x – 14/3) = 5x/2, then find the value of ‘x’.

a) 11/3
b) 16/3
c) 17/6
d) None of these

Correct Choice: a

Solution

According to the question,

{(5x/2) – 3x} = (17/6) – (14/3)

Or, x = 11/3

Hence, option a.

Progressions (60)

60) The 3rd and 7th terms of an arithmetic progression is 143 and 399 respectively. Find its 15th term.

a) 749
b) 865
c) 911
d) 857

Correct Choice: c

Solution

Let the first term and common difference of the series be ‘a’ and ‘d’ respectively

According to the question,

{a + (7 – 1)d} – {a + (3 – 1)d} = 399 – 143

Or, 4d = 256

Or, d = 64

Therefore, a = 143 - 128 = 15

Therefore, 15th term of the series = a + (15 – 1)d = 911

Hence, option c.

Coordinate Geometry (61)

61) Point (2, -1) is midpoint of points A(x, -6) and B(-3, y). Find the value of (x + y).

a) 11
b) -9
c) 15
d) -14

Correct Choice: a

Solution

According to the question,

$\{x + (-3)\}/2 = 2$

Or, $x = 4 + 3 = 7$

Also, $(-6 + y)/2 = -1$

Or, $y = -2 + 6 = 4$

Therefore, $(x + y) = 11$

Hence, option a.

Areas (62)

62) The ratio of the length to breadth of a rectangular field is 7:4, respectively. If the total cost of fencing at the rate of Rs. 2.5/m is Rs. 550, then find the area of the field.

a) 56 dam^2
b) 28 m^2
c) 28 dam^2
d) None of these

Correct Choice: c

Solution

Let the length and breadth of the rectangular field be 7x metres and 4x metres respectively

Therefore, 2(7x + 4x) = 550/2.5

Or, x = 220/22 = 10 metres

Therefore, area of the field = 7x × 4x = 2800 m^2 = 28 dam^2

Hence, option c.

Mixtures & Allegations (63)

63) A 18 kg alloy ‘A’ of tin and copper contains 12 kg tin and rest copper. Alloy ‘A’ is mixed with alloy ‘B’ of tin and copper having the ratio 3:2 respectively. If the ratio of tin to copper in final mixture is 5:3, then find the quantity of copper in alloy ‘B’.

a) 12 kg
b) 16 kg
c) 10 kg
d) 15 kg

Correct Choice: a

Solution

Let the quantity of tin and copper in alloy ‘B’ be ‘3x’ kg and ‘2x’ kg respectively

According to the question,

$(12 + 3x)/(6 + 2x) = 5/3$

Or, $36 + 9x = 30 + 10x$

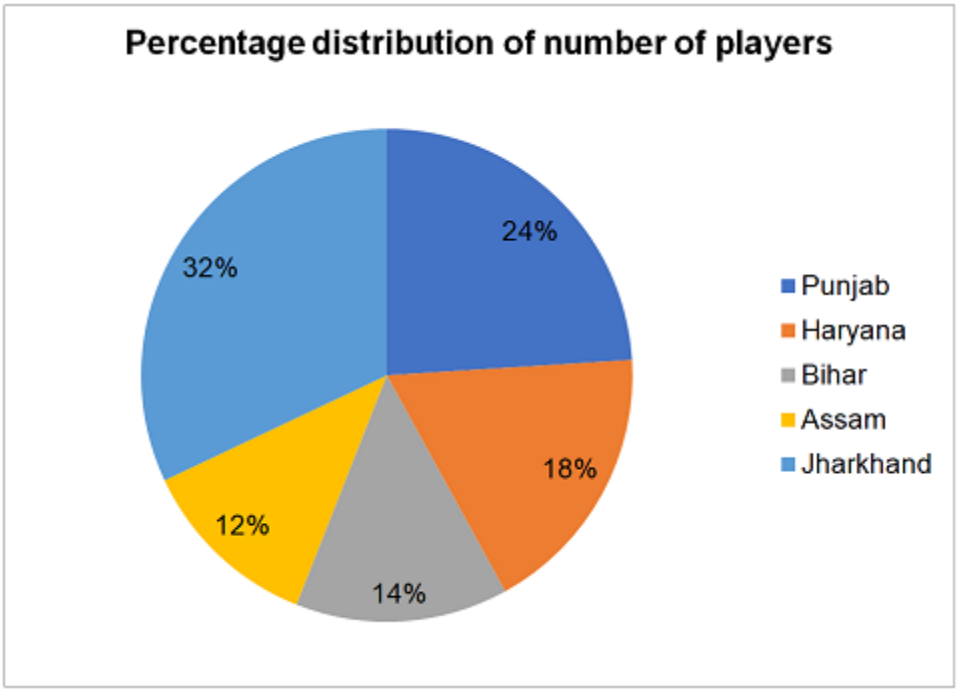
Or, $x = 6$

Therefore, quantity of Copper in alloy ‘B’ = $2x = 12$ kg

Hence, option a.

Data Interpretation (Pie Chart on Percentages) (64)

64) The given pie-chart shows the percentage distribution of 1500 players (boys and girls) from five different states as total number of players from five states together who participated in Khelo India games.



If out of the total number of players from Haryana and Assam 2/3rd and 3/5th were boys respectively then find the difference between the number of girls who participated from given two states.

a) 32
b) 12
c) 24
d) 18

Correct Choice: d

Solution

Required difference = {(1/3) × 0.18 – (2/5) × 0.12} × 1500 = 18

Hence, option d.

Profit & Loss (65)

65) A milk seller purchased 20 litres of milk at the rate of Rs. 25 per litre. While selling the milk, he added 4 litres of water to it and sold the mixture at the same rate. Find the profit/loss percentage of the milk seller.

a) 15%
b) 20%
c) 25%
d) 18%

Correct Choice: b

Solution

Total cost price for the milk seller = (20 × 25) = Rs. 500

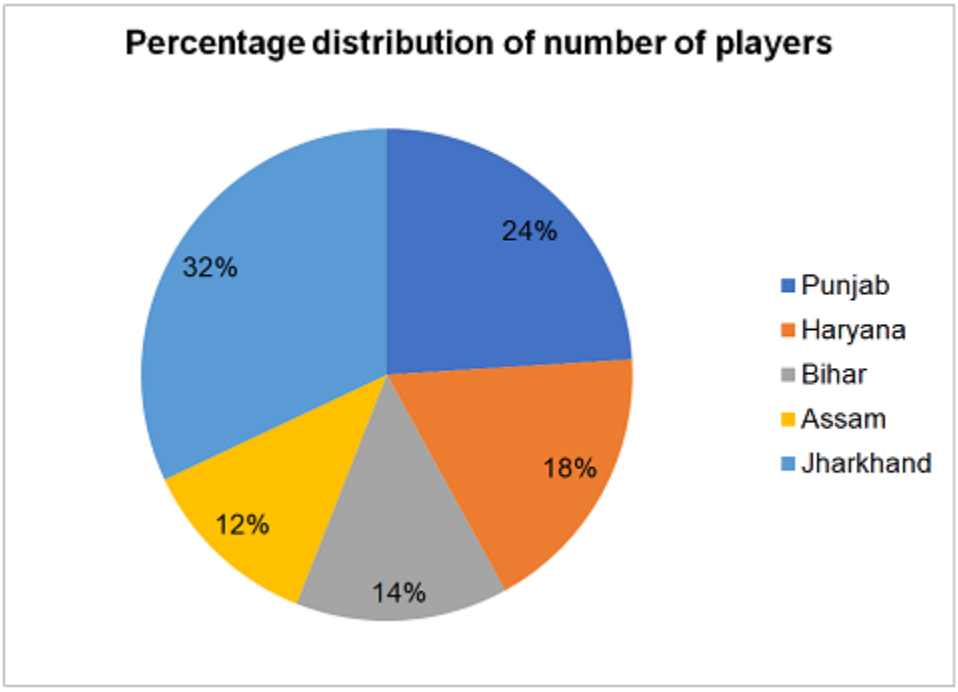
Total selling price for the milk seller = (20 + 4) × 25 = Rs. 600

Required profit percent = {(600 – 500)/500} × 100 = 20%

Hence, option b.

Data Interpretation(Pie chart on percentages) (66)

66) The given pie-chart shows the percentage distribution of 1500 players (boys and girls) from five different states as total number of players from five states together who participated in Khelo India games.



If 10%, 20%, 30%, 40% and 50% of the players from Punjab, Haryana, Bihar, Assam and Jharkhand won gold medals in games played by them, then find total number of games held. Only these five states participated.

a) 465
b) 540
c) 395
d) 620

Correct Choice: a

Solution

Required number of games = {(0.10 × 0.24) + (0.20 × 0.18) + (0.30 × 0.14) + (0.40 × 0.12) + (0.50 × 0.32)} × 1500 = 465

Hence, option a.

Problems on Numbers (67-68)

67) When the numerator and denominator of a fraction is increased by 7 and 13 respectively the fraction becomes 3/5. Find the fraction if the denominator is 2 more than the numerator.

a) 3/5
b) 5/7
c) 11/13
d) 7/9

Correct Choice: b

Solution

Let the numerator of the fraction be ‘a’

According to the question,

{(a + 7)/(a + 2 + 13)} = 3/5

Or, 5a + 35 = 3a + 45

Or, a = 10/2 = 5

Required fraction = 5/7

Hence, option b.

68) 60% of a number is 45% of another number. If the sum of the numbers is 350, then find the difference of the numbers.

a) 50
b) 75
c) 80
d) 45

Correct Choice: a

Solution

Let the numbers be ‘x’ and ‘y’ respectively

According to the question,

0.60x = 0.45y

Or, x/y = 3/4

Therefore, (3 + 4) units = 350

Or, 1 unit = 50 units

Therefore, difference = 4 – 3 = 1 unit = 50

Hence, option a.

Data Interpretation (Tabular Form on percentages) (69-71)

(69-71) Directions: Answer the questions based on the information given below.

The given table shows the income (in Rs.) of two persons and their percentage expenditure (in accordance to their incomes), in four different years.

	Income of ‘A’	Percentage expenditure of ‘A’	Income of ‘B’	Percentage expenditure of ‘B’
2010	45000	60%	32000	75%
2011	36000	75%	48000	50%
2012	48000	80%	25000	80%
2013	54000	45%	40000	65%

69) Find the ratio of the expenditures of ‘A’ in 2010 and 2011, together to the savings of ‘B’ in 2011.

a) 4:1
b) 9:4
c) 3:2
d) 7:5

Correct Choice: b

Solution

In 2010:

Income of ‘A’ = Rs. 45000

Expenditure of ‘A’ = 0.6 × 45000 = Rs. 27000

Expenditure of ‘A’ = 45000 – 27000 = Rs. 18000

Similarly,

	Income of ‘A’	Expenditure of ‘A’	Savings of ‘A’	Income of ‘B’	Expenditure of ‘B’	Savings of ‘B’
2010	45000	27000	18000	32000	24000	8000
2011	36000	27000	9000	48000	24000	24000
2012	48000	38400	9600	25000	20000	5000
2013	54000	24300	29700	40000	26000	14000

Required ratio = (27000 + 27000):24000 = 9:4

Hence, option b.

70) Find the difference between savings of ‘A’ in 2013 and expenditures of ‘B’ in 2011 and 2013, together.

a) Rs. 24300
b) Rs. 19500
c) Rs. 18400
d) Rs. 20300

Correct Choice: d

Solution

In 2010:

Income of ‘A’ = Rs. 45000

Expenditure of ‘A’ = 0.6 × 45000 = Rs. 27000

Expenditure of ‘A’ = 45000 – 27000 = Rs. 18000

Similarly,

	Income of ‘A’	Expenditure of ‘A’	Savings of ‘A’	Income of ‘B’	Expenditure of ‘B’	Savings of ‘B’
2010	45000	27000	18000	32000	24000	8000
2011	36000	27000	9000	48000	24000	24000
2012	48000	38400	9600	25000	20000	5000
2013	54000	24300	29700	40000	26000	14000

Required difference = (24000 + 26000) – 29700 = Rs. 20300

Hence, option e.

71) The expenditure of ‘A’ in 2012 is how much percent of income of ‘B’ in 2010 and 2011, together?

a) 60%
b) 56%
c) 54%
d) 48%

Correct Choice: d

Solution

In 2010:

Income of ‘A’ = Rs. 45000

Expenditure of ‘A’ = 0.6 × 45000 = Rs. 27000

Expenditure of ‘A’ = 45000 – 27000 = Rs. 18000

Similarly,

	Income of ‘A’	Expenditure of ‘A’	Savings of ‘A’	Income of ‘B’	Expenditure of ‘B’	Savings of ‘B’
2010	45000	27000	18000	32000	24000	8000
2011	36000	27000	9000	48000	24000	24000
2012	48000	38400	9600	25000	20000	5000
2013	54000	24300	29700	40000	26000	14000

Required percentage = {38400/(32000 + 48000)} × 100 = 48%

Hence, option d.

Time & work (72)

72) ‘A’ and ‘B’ together working with 75% of their efficiencies can complete a work together in 20 days while ‘A’ alone working with his original efficiency takes 48 days to complete the same work. Find the time taken by ‘B’ alone (working with his original efficiency) to complete 55% of the work.

a) 10 days
b) 18 days
c) 12 days
d) 15 days

Correct Choice: c

Solution

Let the total work be 240 units

75% of efficiency of (A + B) = 240/20 = 12 units/day

Original efficiency of ‘A’ = 240/48 = 5 units/day

Original efficiency of (A + B) = 12/0.75 = 16 units/day

Therefore, original efficiency of ‘B’ = 16 – 5 = 11 units/day

Required time taken = 0.55 × (240/11) = 12 days

Hence, option c.

Mixtures & Allegations (73)

73) A mixture contains paint and oil in the ratio 11:8, respectively. 20% of the mixture is taken out and replaced with ‘y’ litres of paint and ‘2y’ litres of oil such that the ratio of paint to oil in the resultant mixture becomes 8:9. Find the difference between quantity of oil added and the initial quantity of oil, in the mixture.

a) 8 liters
b) 5 liters
c) 10 liters

d) None of these

Correct Choice: d

Solution

Let the initial quantity of paint and oil in the mixture be 11x litres and 8x litres, respectively

According to the question,

{(0.8 × 11x) + y} / {(0.8 × 8x) + 2y} = 8/9

Or, 79.2x + 9y = 51.2x + 16y

Or, 7y = 28x

Or, y = 4x

Or, 2y = 8x

Therefore, quantity of oil added in the mixture = 2y = 8x litres

Initial quantity of the oil in the mixture = 8x litres

Difference = 8x – 8x = 0

Hence, option d.

Partnership (74)

74) ‘A’, ‘B’ and ‘C’ invested Rs. 2400, Rs. 8000 and Rs. 3200, in a business together. After 8 months, ‘B’ left and ‘A’ and ‘C’ added 25% more amount of their initial investments. If the profit received by ‘B’ at the end of the year is Rs. 12000, then find the total profit received by A, B and C together.

a) Rs. 21320
b) Rs. 25650
c) Rs. 14560
d) Rs. 22840

Correct Choice: b

Solution

Ratio of the profits received by ‘A’, ‘B’ and ‘C’

= {(2400 × 8) + (1.25 × 2400 × 4)}:{(8000 × 8)}:{(3200 × 8) + (1.25 × 3200 × 4)} = 39:80:52

Therefore, required profit received = 12000 × (39 + 80 + 52)/80 = Rs. 25650

Hence, option b.

Areas (75)

75) The sum of the perimeters of an equilateral triangle and a square is 120 cm. If their perimeters are equal then find the area of the square.

a) 256 cm^2
b) 225 cm^2
c) 196 cm^2
d) 400 cm^2

Correct Choice: b

Solution

Let each side of square be ‘a’ cm

According to the question,

Perimeter of the square = 120/2 = 60 cm

Or, 4a = 60

Or, a = 15

Therefore, area of the square = 15^2 = 225 cm^2

Hence, option b.

Simple Interest – Compound Interest (76)

76) Rs. (x + 200) when invested at 15% p.a. for 8 years gives a simple interest of Rs. (x + 680). Find the amount received when Rs. (x + 1000) is invested at 50% p.a. compound interest for two years, compounded annually.

a) Rs. 5000
b) Rs. 6400
c) Rs. 7200
d) Rs. 8000

Correct Choice: c

Solution

According to the question,

{(x + 200) × 15 × 8}/100 = (x + 680)

Or, 1.2x – x = 680 – 240

Or, x = 440/0.2 = 2200

Required amount received = $(x + 1000)(1 + 50/100)^2 = 3200(1 + 50/100)^2$ = Rs. 7200

Hence, option c.

Averages (77)

77) The average of three numbers (a, b and c) is 320. ‘b’ is 25% more than ‘a’ and 120 less than ‘c’. Find the average of ‘a’ and ‘c’.

a) 330
b) 300
c) 350
d) 280

Correct Choice: a

Solution

According to the question,

b = 1.25a and c = 1.25a + 120

According to the question,

1.25a + 1.25a + 120 + a = 3 × 320

Or, a = 840/3.5 = 240

Required average = (a + 1.25a + 120)/2 = 660/2 = 330

Hence, option a.

Problems on Ages (78)

78) The ratio of the ages of ‘A’ and ‘B’, 8 years ago from now was 3:2, respectively. If the ratio of their ages 4 years hence form now will be 9:7, respectively, then find the difference between their present ages.

a) 4 years
b) 8 years
c) 2 years
d) 6 years

Correct Choice: b

Solution

Let the ages of ‘A’ and ‘B’, 8 years ago from now be 3x years and 2x years, respectively

According to the question,

(3x + 8 + 4) / (2x + 8 + 4) = 9/7

Or, 21x + 84 = 18x + 108

Or, 3x = 24

Or, x = 8

Required difference = 3x – 2x = x = 8 years

Hence, option b.

Percentages (79)

79) In a group of animals (cows + horses), if 40% of cows left and same number of horses join the group, then the number of horses would have been 50% more than that of cows. Find the original percentage of horses in the group of animals.

a) 11.5%
b) 20%
c) 33.33%
d) 16.66%

Correct Choice: c

Solution

When 40% of cows left and same number of horses join:

Let the number of cows be ‘x’

Therefore, number of horses = 1.5x

Total number of animals = x + 1.5x = 2.5x

Now, original number of cows = x/0.6 = 5x/3

Therefore, original number of horses = 2.5x – (5x/3) = 5x/6

Required percentage = {(5x/6)/2.5x} × 100 = 33.33%

Hence, option c.

Comparison on Boats & Streams (80 – Q1, Q2)

80) In the question, two quantities I and II are given. You have to solve both the quantities to establish the correct relation between Quantity-I and Quantity-II and choose the correct option.

Quantity-I: Boat ‘A’ can travel 125 km upstream in 12.5 hours and 340 km downstream in 8.5 hours. The speed of the boat in still water is what percent of the speed of the current.

Quantity-II: A boat can travel 110 km downstream in 5 hours. If the speed of the boat in still water is 6 km/hr more than that of current, then the speed of the boat in still water is what percent of the speed of the current.

a) Quantity-I > Quantity-II
b) Quantity-I < Quantity-II
c) Quantity-I ≤ Quantity-II
d) Quantity-I = Quantity-II or No relation

Correct Choice: b

Solution

Quantity I:

Let the speed of the boat in still water be ‘x’ km/hr and the speed of the current be ‘y’ km/hr

According to the question,

(x - y) = 125 / 12.5 = 10… .. (1)

Also, (x + y) = 34/8.5 = 40….. (2)

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

Speed of the boat in still water = x = 25 km/hr

Speed of the current = 15 km/hr

Required percentage = 25/15 × 100 = 166.67%

Quantity II:

Let the speed of the current be ‘a’ km/hr

Therefore, speed of the boat in still water = (a + 6) km/hr

According to the question,(a + a + 6) = 110/5 = 22

Or, a = 16/2 = 8

Required percentage = 14/8 × 100 = 175%

Hence, option b.