

Prepp

Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UPTET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC GD Constable 2022 (English) Prev. Year Paper (10-Jan-2023) (Shift 3)

Total Time: 1 Hour

Total Marks: 160

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence and Reasoning	20	40	0.5	2
2	General Knowledge and General Awareness	20	40	0.5	2
3	Elementary Mathematics	20	40	0.5	2
4	English	20	40	0.5	2

- 1.) A total of 60 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

General Intelligence and Reasoning

1. In this question, three statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follows/follow from the statements. (+2, -0.5)

Statements:

All fans are bulbs.

All bulbs are tube lights.

Some tube lights are new.

Conclusions:

I. All fans are new.

II. All tube lights are fans.

- a. Only conclusion II follows.
- b. Only conclusion I follows.
- c. Neither conclusion I nor II follows.
- d. Both conclusions I and II follow.

2. Select the figure that will come next in the following series. (+2, -0.5)





3. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster. (+2, -0.5)

ROOT : QQTV :: STEM : VGUO :: LEAF : ?

- a. GCNH
- b. GCHN
- c. GDNH
- d. NGCH

4. Which letter-cluster will replace the question mark (?) to complete the given series? (+2, -0.5)

AJRZ, DMTC, ?, JSXI, MVZL

- a. GPVF
- b. GRVF
- c. HRVF
- d. HPVF

5. 'A + B' means 'A is the son of B' (+2, -0.5)

'A - B' means 'A is the sister of B'

'A × B' means 'A is the brother of B'

'A ÷ B' means 'A is the wife of B'

If $A + B \div C \times D - E + F$, then which of the following statements is NOT correct?

- a. A is the grandson of F.
- b. A is the son of C.
- c. E is the brother of B.
- d. D is the daughter of F.

6. In a certain code language, 'FINGER' is written as 'HHPIDT' and 'DESTINY' is written as 'FDUVHPA'. How will 'GRANTED' be written in that language? (+2, -0.5)

- a. ITZPVDF
- b. HTZPVCE

- c. IQCMVDF
- d. HTCOVCE

7. Which two signs should be interchanged to make the below equation mathematically correct? (+2, -0.5)

$$136 \div 17 + 102 - 3 \times 2 = 187$$

- a. + and \times
 - b. \div and \times
 - c. \times and -
 - d. \div and -
-
8. Seven people A, H, D, F, T, E, and G are sitting in a straight row, facing north. (+2, -0.5)
Only three people sit to the left of E. G and H are immediate neighbours of E. A sits at the extreme right of the row. D is the immediate neighbour of A. F sits second to the left of E. Who sits at the extreme left of the row?

- a. D
- b. T
- c. A
- d. F

9. 6 Friends F, U, K, S, M, and A, are sitting around a circular table facing the centre. A and S are immediate neighbours of K. F is sitting opposite to K. S is not a neighbour of F. M is an immediate neighbour of A and F. Who is the immediate neighbour of A and F if M and S exchange their positions? (+2, -0.5)

- a. U
- b. K
- c. S
- d. M

10. In a certain code language, 'find a solution' is coded as '418', 'be attentive' is coded as '29' and 'answers are correct' is coded as '737'. How will 'check the question' be coded in that language? (+2, -0.5)

- a. 835
- b. 427
- c. 538
- d. 649

11. Select the set in which the numbers are related in the same way as are the numbers of the following set. (+2, -0.5)

(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into its constituent digits. E.g. 13 - Operations on 13 such as adding/subtracting/multiplying etc. to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is NOT allowed)

(216, 12, 15)

(432, 23, 31)

- a. (304, 14, 24)
- b. (380, 24, 18)

- c. (150, 11, 14)
- d. (484, 16, 32)

12. Which option represents the correct order of the given words as they would appear in the English dictionary? (+2, -0.5)

- 1. Seminar
- 2. Semolina
- 3. Senior
- 4. September
- 5. Serious

- a. 5, 4, 3, 2, 1
- b. 1, 3, 4, 2, 5
- c. 1, 2, 3, 4, 5
- d. 5, 3, 4, 1, 2

13. Which of the following numbers will replace the question mark (?) in the given series? (+2, -0.5)

3, 21, 147, ?, 7203

- a. 882
- b. 1323
- c. 1218
- d. 1029

14. Select the option that is related to the third word in the same way as the second word is related to the first word. (+2, -0.5)

(The words must be considered as meaningful English words and must not be related to each other based on the number of letters/number of consonants/vowels in the word.)

Mumbai : Maharashtra :: Bhopal: ?

- a. Madhya Pradesh
 - b. Delhi
 - c. Uttar Pradesh
 - d. Andhra Pradesh
15. Select the number from among the given options that can replace the question mark (?) in the following series. (+2, -0.5)

213, 216, 225, 240, 261, ?

- a. 286
- b. 288
- c. 289
- d. 268

16. Which of the following terms will replace the question mark (?) in the given series? (+2, -0.5)

LPKT, NNMR, PLOP, ?, THSL

- a. RJQN
- b. SJQN
- c. SJQO
- d. RIQN

17. Select the option figure which is embedded in the given figure. (Rotation is NOT allowed) (+2, -0.5)

a. 

b. 

c. 

d. 

18. Select the correct combination of mathematical signs to replace the * signs and balance the given equation. (+2, -0.5)

$$89 * 5 * 15 * 32 * 8 * 18$$

- a. $\div, +, -, \times, =$
- b. $\times, +, \div, -, =$
- c. $+, -, \div, \times, =$

d. -, ×, +, ÷, =

19. Three different positions of the same dice are shown. Find the number on the face opposite the face showing '4'. (+2, -0.5)



- a. 3
- b. 2
- c. 5
- d. 1

20. Select the option figure which is embedded in the given figure. (Rotation is NOT allowed) (+2, -0.5)



- a.
- b.
- c.
- d.

General Knowledge and General Awareness

21. In the Indian Constitution 'the abolition of untouchability' provision is mentioned in _____ . (+2, -0.5)
- a. Article 14
 - b. Article 17
 - c. Article 19
 - d. Article 32
-
22. What is the colour of the flame when magnesium burns in the presence of oxygen? (+2, -0.5)
- a. Yellow
 - b. Red
 - c. White
 - d. Green
-
23. Who among the following Gupta rulers was hailed as 'Indian Napoleon' because of his military achievements? (+2, -0.5)
- a. Chandragupta I
 - b. Chandragupta II
 - c. Srigupta
 - d. Samudragupta

24. E. Krishna Iyer is associated with which form of dance? (+2, -0.5)

- a. Kathak
 - b. Odissi
 - c. Kuchipudi
 - d. Bharatanatyam
-

25. In India, the population census is conducted once every _____. (+2, -0.5)

- a. 5 years
 - b. 12 years
 - c. 10 years
 - d. 15 years
-

26. Which of the following country is not a part of the Lusofonia Games? (+2, -0.5)

- a. Portugal
 - b. Germany
 - c. India
 - d. Macau
-

27. Radio broadcasting started in India in 1923 by the _____. (+2, -0.5)

- a. Radio Club of Bombay

- b. Lions Club of Bombay
 - c. Rotary Club of Bombay
 - d. Rotaract Club Of Bombay
-

28. Which Article of the Constitution of India talks about Superintendence, direction and control of elections? (+2, -0.5)

- a. Article 324
 - b. Article 333
 - c. Article 356
 - d. Article 367
-

29. As of November 2022, who among the following is the Lieutenant Governor of Delhi, India? (+2, -0.5)

- a. Anil Bajjal
 - b. Vinai Kumar Saxena
 - c. Arvind Kejriwal
 - d. Manoj Sinha
-

30. While computing the national income, _____ is taken as a factor. (+2, -0.5)

- a. Chemical used
- b. Electricity bill

- c. Export
 - d. Road construction
-

31. Which among the following festival marks the menstruation period of the Goddess Kamakhya in Assam? (+2, -0.5)

- a. Moatsu
 - b. Chapchar Kut
 - c. Wangala
 - d. Ambubachi Mela
-

32. The _____ industry covers a wide range of products from transistor sets to television. (+2, -0.5)

- a. fertilizer
 - b. canal irrigation
 - c. electronics
 - d. Jute processing
-

33. Three of the following four are examples of Coelenterata phylum, and therefore form a group. Which is the one that does not belong to that group? (+2, -0.5)

- a. Sea-pen
- b. Liver fluke

- c. Brain coral
 - d. Sea anemone
-

34. _____ launched on 25th June 2015, intends to provide housing for all in urban areas by year 2022. (+2, -0.5)

- a. O-SMART Scheme
 - b. Pradhan Mantri Garib Kalyan Anna Yojana
 - c. Pradhan Mantri Awas Yojana (Urban)
 - d. Global Housing Technology Challenge
-

35. In which of the following places was the Indian Grand Prix-4 held in June 2021? (+2, -0.5)

- a. Ludhiana
 - b. Patiala
 - c. Amritsar
 - d. Jalandhar
-

36. A _____ is a barrier across flowing water that obstructs, directs or retards the flow, often creating a reservoir, lake or impoundment. (+2, -0.5)

- a. meander
- b. dam
- c. tributary

d. moat

37. Who won the Sangeet Natak Akademi Award in Bharatnatyam in 2018? (+2, -0.5)

a. Madambi Subramanian Namboodiri

b. Radha Sridhar

c. Pasumurthy Ramalinga Sastry

d. Akham Lakshmi Devi

38. Which Union Minister launched the India water pitch-pilot-scale start-up challenge in March 2022? (+2, -0.5)

a. Kaushal Kishore

b. D Thara

c. Manoj Joshi

d. Hardeep Singh Puri

39. Swami Dayanand Saraswati founded the _____, an organisation that attempted to reform Hinduism. (+2, -0.5)

a. Arya Samaj

b. Adi Hindu Samaj

c. Vedant Samaj

d. Adi Dharam Samaj

40. As per RBI, in India, services sector accounted for _____ on the GDP in the 1980s. (+2, -0.5)
- a. 58.6 per cent
 - b. 38.6 per cent
 - c. 18.6 per cent
 - d. 78.6 per cent

prepp

Your Personal Exams Guide

Elementary Mathematics

41. The value of an article depreciated from Rs. 18,000 to Rs. 14,580 in 2 years. (+2, -0.5)
Find the yearly rate of depreciation in the value of the article.
- a. 10%
 - b. 12%
 - c. 9%
 - d. 8%
-
42. Ramu and Mohan can separately complete a work in 10 hours and 16 hours, respectively. After working for 2 hours together, Mohan leaves the work. In how many hours will Ramu finish the remaining work? (+2, -0.5)
- a. $6\frac{1}{4}$
 - b. $6\frac{3}{4}$
 - c. $5\frac{3}{4}$
 - d. $7\frac{3}{4}$
-
43. A car covers a certain distance in 3 h with a speed of 108 km/h. If the speed is reduced by 27 km/h, then the time taken by the car to cover the same distance will be: (+2, -0.5)
- a. $2\frac{1}{2}$ h
 - b. 2 h
 - c. $3\frac{1}{2}$ h

d. 4 h

44. Rahul travels a certain distance at a speed of 4 km/h and returns at a speed of 3 km/h via same route. What was his average speed for the entire journey (correct to 2 decimal places)? (+2, -0.5)

a. 3.43 km/h

b. 5.92 km/h

c. 1.23 km/h

d. 2.5 km/h

45. Rohan divides his complete journey in three equal parts and covers the first part at a speed of 30 km/h, the second part at 40 km/h and the last part at 50 km/h with his car. What is the average speed (in km/h) of his car during his entire journey? (+2, -0.5)

a. $35\frac{14}{47}$

b. $38\frac{14}{47}$ Your Personal Exams Guide

c. 40

d. 45

46. A can do a piece of work in 8 days and B in 24 days. They begin together, but 4 days before the completion of the work, A leaves. Find the number of days taken by A and B to complete the entire work. (+2, -0.5)

a. 11 days

b. 8 days

c. 9 days

d. 7 days

47. A thief started his journey at a speed of 60 km/h. After 30 minutes, police started from the same place but at a speed of 80 km/h. How much time (in hours) will the police take to catch the thief? (+2, -0.5)

a. $\frac{3}{2}$ hours

b. $\frac{1}{2}$ hours

c. $\frac{1}{3}$ hours

d. $\frac{5}{2}$ hours

48. What is the difference between the compound interest on Rs. 5,750 for one year at 16% per annum compounded yearly and compounded half-yearly? (+2, -0.5)

a. Rs. 49.76

b. Rs. 36.80

c. Rs. 29.50

d. Rs. 32.58

49. Evaluate the following expression. (+2, -0.5)

$$\left[\frac{-4}{7} \div \frac{1}{12}\right] \div \left[-\frac{4}{5} \times \left\{(-2) - \left(-\frac{2}{7}\right)\right\}\right]$$

a. -5

- b. $-\frac{1}{5}$
 - c. $\frac{1}{5}$
 - d. 5
-

50. The volumes of two cones are in the ratio of 3 : 2 and their radii are in the ratio 3 : 4. The ratio of their heights is: (+2, -0.5)

- a. 8 : 3
 - b. 9 : 4
 - c. 4 : 9
 - d. 2 : 1
-

51. In an election, there were two candidates A and B. The total number of voters in the constituency was 90000 and 70% of the total votes were polled. If 60% of the polled votes were cast in favour of A, how many votes were received by B? (+2, -0.5)

- a. 28500
 - b. 25200
 - c. 28700
 - d. 28600
-

52. The curved surface area of a sphere is 1386 cm^2 . The volume of this sphere is: (+2, -0.5)

- a. 4815 cm^3

- b. 4851 cm^3
- c. 2425.5 cm^3
- d. 1617 cm^3

53. The ratio of milk and water in two containers of 20 litres and 36 litres are in the ratio 3 : 7 and 7 : 5, respectively. What will be the ratio of milk and water if the two containers are mixed together? (+2, -0.5)

- a. 9 : 13
- b. 27 : 29
- c. 21 : 23
- d. 21 : 25

54. The square of 28 is divided by the largest number that can exactly divide both 42 and 56. What is the result? (+2, -0.5)

- a. 28
- b. 14
- c. 42
- d. 56

55. A table whose marked price Rs. 300 is sold at two successive discounts of 20% and 10%. If in addition, a discount of 5% is offered on cash payment, then the cash price for the table is: (+2, -0.5)

- a. Rs. 210.25

- b. Rs. 216.50
 - c. Rs. 240.25
 - d. Rs. 205.20
-

56. The price of petrol is raised to Rs. 96.5 per litre from Rs.92 per litre. What is the percentage increase in price of petrol? (+2, -0.5)

- a. 4.5%
 - b. 4.7%
 - c. 4.9%
 - d. 5.1%
-

57. The third proportional to 24 and 36 is: (+2, -0.5)

- a. 45
 - b. 64
 - c. 54
 - d. 46
-

58. Under a discount scheme, after allowing a discount of 20%, there is still a gain of 10%. The marked price is what percentage more than the cost price? (+2, -0.5)

- a. 39%
- b. 37.5%

- c. 40%
 - d. 35.2%
-

59. Harshi bought a new sweatshirt at the store, when they were giving a 40 percent discount. If the marked price of the sweatshirt was Rs. 2999, then how much did Harshi pay with the discount? (+2, -0.5)

- a. Rs. 2099.20
 - b. Rs. 1799.40
 - c. Rs. 2399.50
 - d. Rs. 1899.80
-

60. A man sold two chairs for Rs. 475 each, gaining 25% on one and losing 20% on the other. Had he sold the two chairs for Rs. 575 each, what would have been his gain/loss percentage (rounded off to the nearest integer)? (+2, -0.5)

- a. 45% gain
- b. 18% gain
- c. 41% gain
- d. 25% gain

English

61. Select the most appropriate option to fill in the blank. (+2, -0.5)

We would _____ to travel by train rather than bus due to the poor road conditions in the village.

- a. prefer
- b. assure
- c. make it
- d. drop

62. Select the most appropriate option that can substitute the underlined segment in the given sentence. (+2, -0.5)

The participants are rehearse their roles.

- a. are rehearsed
- b. has been rehearsing
- c. have rehearse
- d. are rehearsing

63. Select the option with the correct spelling to replace the underlined word in the given sentence. (+2, -0.5)

She hit him in a moment of abomination.

- a. aberation

- b. abberation
 - c. aberattion
 - d. aberration
-

64. Select the most appropriate ANTONYM of the given word. (+2, -0.5)

Anxious

- a. Considerate
 - b. Unconcerned
 - c. Stealthy
 - d. Haughty
-

65. Identify the correctly spelt sentence. (+2, -0.5)

- a. My grandfather planted couliflower in the garden.
 - b. My grandfather planted kauliflower in the garden.
 - c. My grandfather planted cauleflower in the garden.
 - d. My grandfather planted cauliflower in the garden.
-

66. Select the most appropriate synonym of the underlined word. (+2, -0.5)

Music is a therapy for everyone – plants, birds, animals and human-beings – to flourish and rejuvenate.

- a. modify

- b. prosper
 - c. refreshen
 - d. fortify
-

67. Select the most appropriate meaning of the given idiom. (+2, -0.5)

After one's own heart

- a. Having a face as one's own
 - b. Having likes and dislikes dissimilar to one's own
 - c. Having likes and dislikes far to one's own
 - d. Having likes and dislikes similar to one's own
-

68. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+2, -0.5)

Our soldiers have being / making a clean sweep of the / sheep and poultry on the route.

- a. No error
 - b. sheep and poultry on the route
 - c. Our soldiers have being
 - d. making a clean sweep of the
-

69. Select the most appropriate ANTONYM of the underlined word in the given sentence. (+2, -0.5)

It is absurd to argue about this.

- a. facetious
- b. fundamental
- c. reasonable
- d. amazing

70. Select the most appropriate option to fill in the blank. (+2, -0.5)

_____ men command respect.

- a. Holy
- b. Holey
- c. Holly
- d. wholly

71. Select the most appropriate synonym of the given word. (+2, -0.5)

Sumptuous

- a. Mammoth
- b. Humble
- c. Minuscule
- d. Lavish

72. Select the most appropriate idiom to substitute the underlined group of words in the given sentence. (+2, -0.5)

Once in a year, the management of the institute surveys the whole situation.

- a. take stock of
- b. perplexed with
- c. makes a mark
- d. comes to the front

73. Select the correct pair of words for the blanks in the given sentence. (+2, -0.5)

My cousin likes _____ root and _____ around the bush is one of the idioms in English.

- a. beat; beat
- b. beat; beet
- c. beet; beat
- d. beet; beet

74. Select the most appropriate homonym to fill in the blank. (+2, -0.5)

He confessed about his affairs as the _____ made him sleepless.

- a. guilt
- b. gilled

- c. gild
- d. guild

75. Select the most appropriate option that can substitute the underlined segment in the given sentence. (+2, -0.5)

The students were boring by the lecture delivered on environmental issues.

- a. The students were bores
- b. The students bored
- c. The students were barring
- d. The students were bored

76. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Children especially (1)_____ avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.

Select the most appropriate option to fill in blank number 1.

- a. might
- b. will

c. should

d. shall

77. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Children especially (1)_____ avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.

Select the most appropriate option to fill in blank number 2.

a. elegant

b. proper

c. interesting

d. awkward

78. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Children especially (1)_____ avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the

calories content and food value of food served in the canteens and setting definite tiffin patterns.

Select the most appropriate option to fill in blank number 3.

- a. allow
- b. show
- c. proclaim
- d. monitor

79. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank. (+2, -0.5)

Children especially (1)_____ avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.

Select the most appropriate option to fill in blank number 4.

- a. through
- b. with
- c. from
- d. in

80. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.

(+2, -0.5)

Children especially (1)_____ avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.

Select the most appropriate option to fill in blank number 5.

- a. Technicians
- b. Dieticians
- c. Paediatricians
- d. Opticians

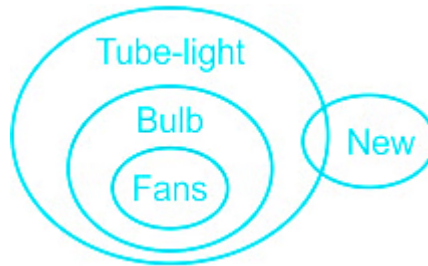
Your Personal Exams Guide

Answers

1. Answer: c

Explanation:

The least possible Venn diagram is given below according to the given information.



Conclusion:

I. All fans are new → **Does not follow** → (As all fans are Bulb, all bulb are tube-light, and some tube-light are new. So all fans are new is possible but not definite followed)

II. All tube lights are fans → **Does not follow** → (As all fans are Bulb, all bulb are tube-light, and some tube-light are new. So all tube lights are fans is not definite followed)

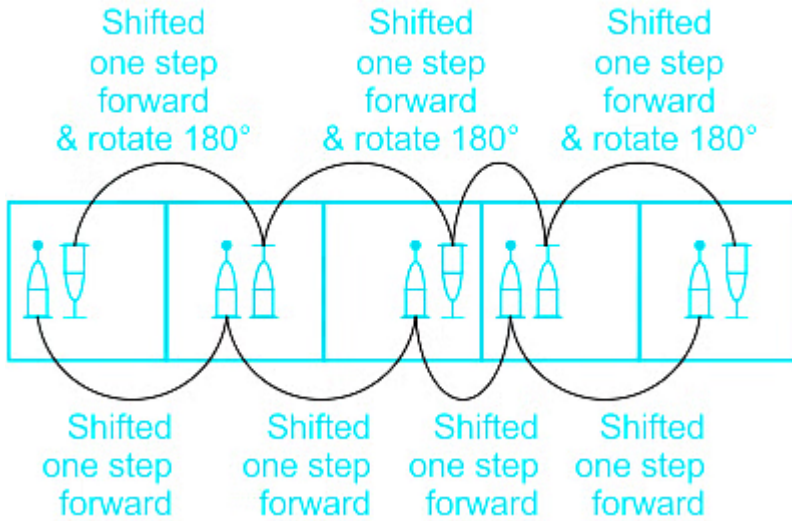
Here, neither conclusion I nor II follows.

Hence, the correct answer is "Option 3".

2. Answer: a

Explanation:

The pattern followed here is:



Hence, the correct answer is "Option 1".

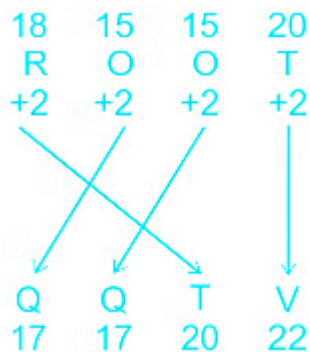
3. Answer: a

Explanation:

The logic followed here is:

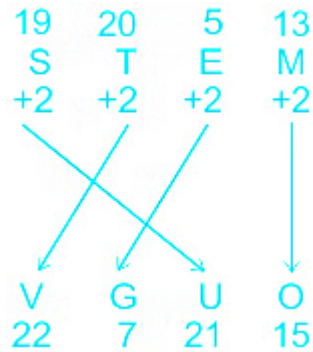
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

ROOT : QQTV



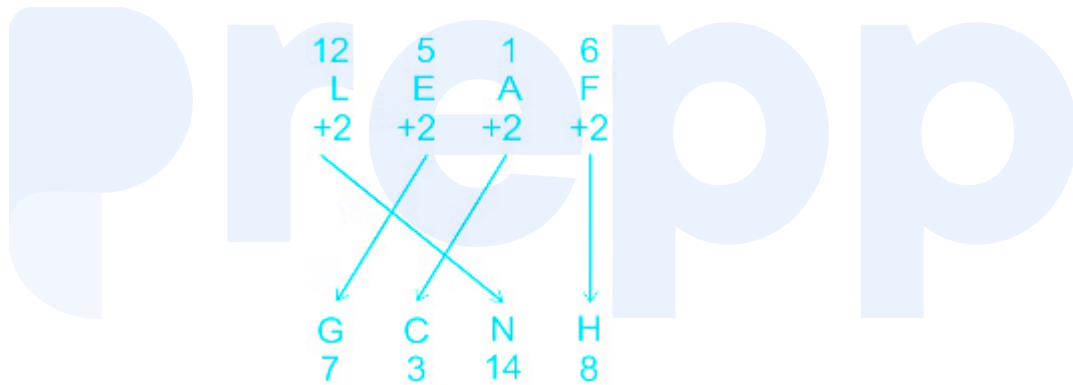
And,

STEM : VGUO



Similarly,

LEAF : ?



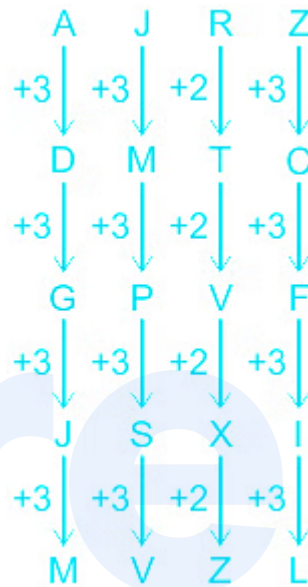
Hence, the correct answer is "GCNH".

4. Answer: a

Explanation:

The logic followed here is:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N



Hence, the correct answer is "GPVF".

5. Answer: c

Your Personal Exams Guide

Explanation:

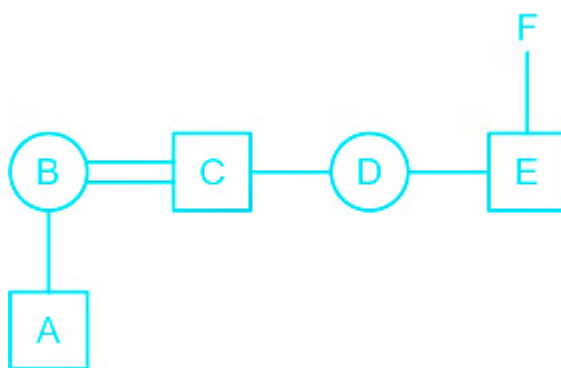
Preparing the family tree using the following symbols:

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married Couple
—	Siblings
	Difference of A Generation

Symbol	Meaning
+	son
-	Sister
×	Brother
÷	Wife

According to the given question:

"A + B ÷ C × D - E + F" is shown as a family tree diagram below,



Now, let's check each option:

1) A is the grandson of F → True

2) A is the son of C → True

3) E is the brother of B → **False**

4) D is the daughter of F → True

Hence, the correct answer is "E is the brother of B".

6. Answer: a

Explanation:

The logic followed here is:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

Logic:

Step 1: Addition of +2 in the consonant alphabet.

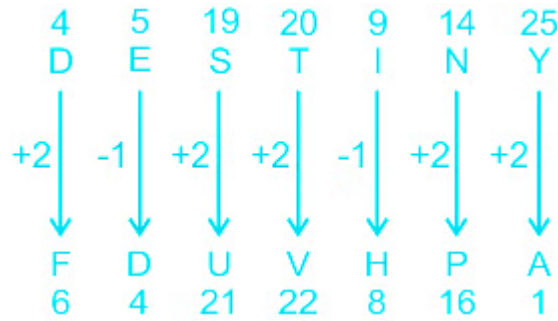
Step 2: Subtraction of -1 in the vowel alphabet.

'FINGER' is written as 'HHPIDT'



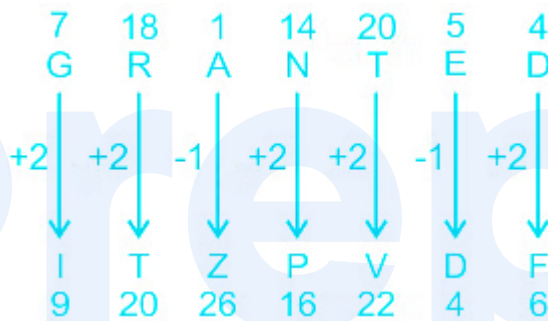
And,

'DESTINY' is written as FDUVHPA'



Similarly,

'GRANTED' be written as '??'



Hence, the correct answer is "ITZPVDF".

7. Answer: d

Your Personal Exams Guide

Explanation:

The pattern followed here is:

We have to interchange the signs in the given equations to make it correct.

Let's check each option one by one.

Option 1) + and ×

Given: $136 \div 17 + 102 - 3 \times 2 = 187$

After interchanging the sign we get the;

$$\Rightarrow \underline{136 \div 17} \times 102 - 3 + 2 = 187$$

$$\Rightarrow \underline{8 \times 102} - 3 + 2 = 187$$

$$\Rightarrow \underline{816} - 3 + \underline{2} = 187$$

$$\Rightarrow \underline{818 - 3} = 187$$

$$\Rightarrow 815 \neq 187$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 2) \div and \times

$$\text{Given: } 136 \div 17 + 102 - 3 \times 2 = 187$$

After interchanging the sign we get the;

$$\Rightarrow 136 \times 17 + 102 - \underline{3 \div 2} = 187$$

$$\Rightarrow \underline{136 \times 17} + 102 - 1.5 = 187$$

$$\Rightarrow \underline{2312 + 102} - 1.5 = 187$$

$$\Rightarrow \underline{2414 - 1.5} = 187$$

$$\Rightarrow 2412.5 \neq 187$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 3) \times and $-$

$$\text{Given: } 136 \div 17 + 102 - 3 \times 2 = 187$$

After interchanging the sign we get the;

$$\Rightarrow \underline{136 \div 17} + 102 \times 3 - 2 = 187$$

$$\Rightarrow 8 + \underline{102 \times 3} - 2 = 187$$

$$\Rightarrow \underline{8 + 306} - 2 = 187$$

$$\Rightarrow \underline{314 - 2} = 187$$

$$\Rightarrow 312 \neq 187$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

Option 4) \div and $-$

$$\text{Given: } 136 \div 17 + 102 - 3 \times 2 = 187$$

After interchanging the sign we get the;

$$\Rightarrow 136 - 17 + \underline{102 \div 3} \times 2 = 187$$

$$\Rightarrow 136 - 17 + 34 \times 2 = 187$$

$$\Rightarrow 136 - 17 + 68 = 187$$

$$\Rightarrow 204 - 17 = 187$$

$$\Rightarrow 187 = 187$$

$$\Rightarrow \text{LHS} = \text{RHS}$$

Hence, the correct answer is "Option 4".

8. Answer: b

Explanation:

The pattern followed here is:

Given: Seven people A, H, D, F, T, E, and G are sitting in a straight row, facing north.

1) Only three people sit to the left of E.

(It means E sits on the middle of the row)



2) A sits at the extreme right of the row.



3) F sits second to the left of E.



4) G and H are immediate neighbours of E.

(Position of G and H is not clear but they sit either side of E)



5) D is the immediate neighbour of A.



6) So, T sits on the vacant place.



Clearly, T sits extreme left of the row.

Hence, the correct answer is "T".

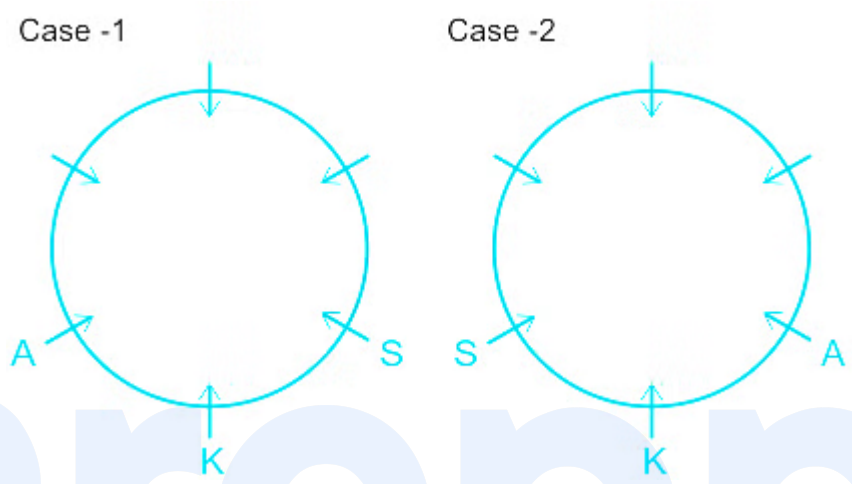
9. Answer: c

Explanation:

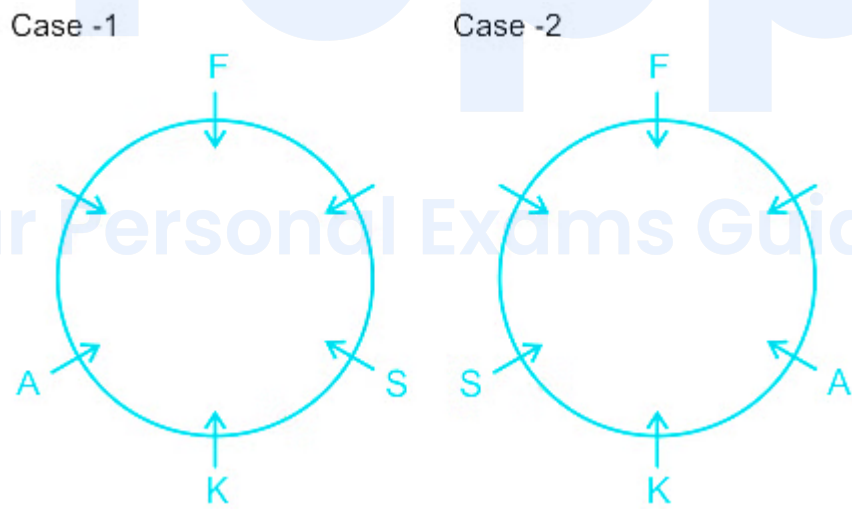
The pattern followed here is:

Given: 6 Friends F, U, K, S, M, and A, are sitting around a circular table facing the centre.

1) A and S are immediate neighbours of K.

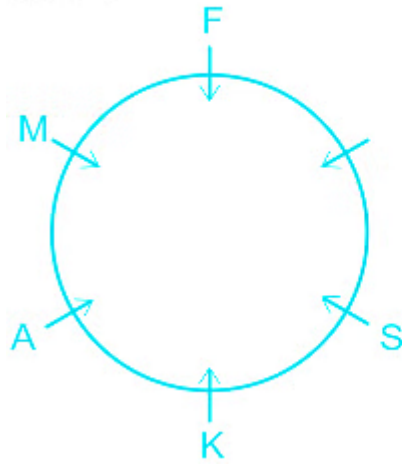


2) F is sitting opposite to K.

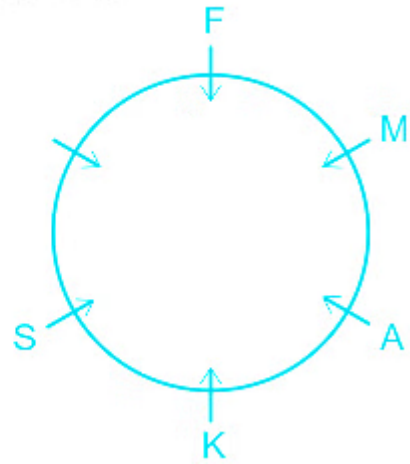


3) M is an immediate neighbour of A and F.

Case -1

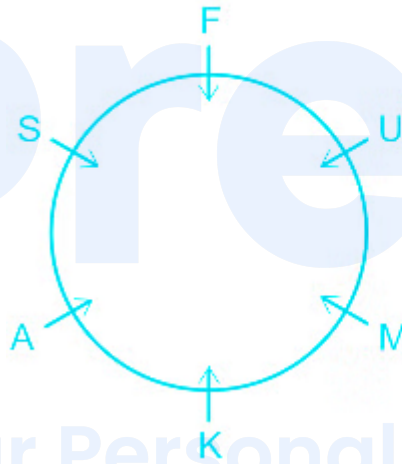


Case -2

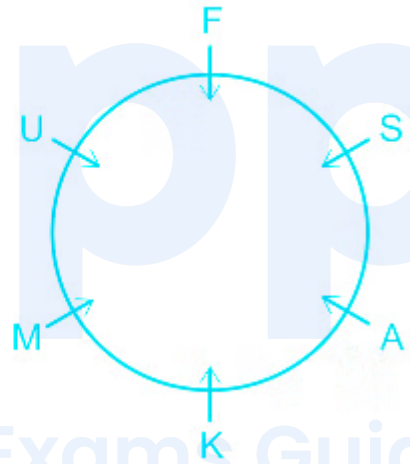


4) U sits in the vacant place.

Case -1



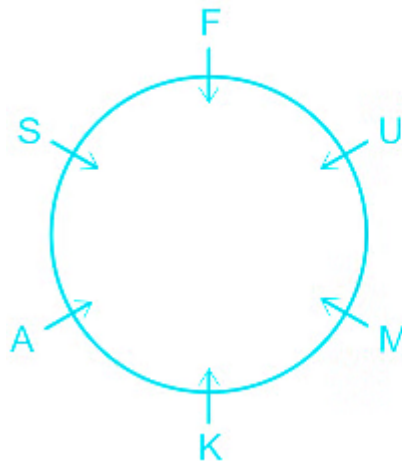
Case -2



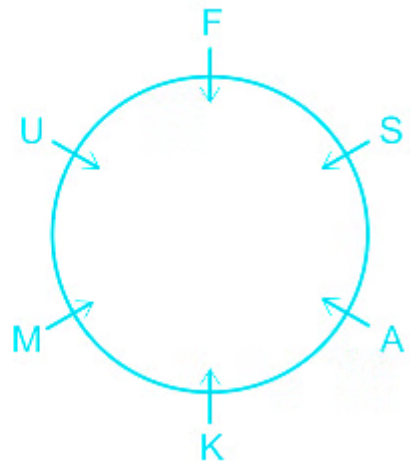
Your Personal Exams Guide

5) if M and S exchange their positions.

Case -1



Case -2



Clearly, S sit between A and F in both the cases.

Hence, the correct answer is "S".

10. Answer: c

Explanation:

The pattern followed here is:

Logic: Number of words = Code.

Given:

1) Find a solution is coded as '418'

Word	Number of letter
Find	4
a	1
solution	8

2) be attentive is coded as '29'

Word	Number of letter
be	2
attentive	9

3) answers are correct is coded as '737'

Word	Number of letter
answers	7
are	3
correct	7

4) 'check the question' be coded as '?'

Word	Number of letter
check	5
the	3
question	8

Hence, the correct answer is "538".

11. Answer: a

Explanation:

The pattern followed here is:

Logic: (Third number + Second number) × 8 = First number.

Given:

(216, 12, 15)

$$\Rightarrow (15 + 12) \times 8$$

$$\Rightarrow 27 \times 8 = 216$$

And,

(432, 23, 31)

$$\Rightarrow (23 + 31) \times 8$$

$$\Rightarrow 54 \times 8 = 432$$

Let's check each option one by one.

1) (304, 14, 24)

$$\Rightarrow (14 + 24) \times 8$$

$$\Rightarrow 38 \times 8 = 304 \text{ (Correct)}$$

2) (380, 24, 18)

$$\Rightarrow (24 + 18) \times 8$$

$$\Rightarrow 42 \times 8 = 336 \neq 380 \text{ (Incorrect)}$$

3) (150, 11, 14)

$$\Rightarrow (11 + 14) \times 8$$

$$\Rightarrow 25 \times 8 = 200 \neq 150 \text{ (Incorrect)}$$

4) (484, 16, 32)

$$\Rightarrow (16 + 32) \times 8$$

$$\Rightarrow 48 \times 8 = 384 \neq 484 \text{ (Incorrect)}$$

Hence, the correct answer is "(304, 14, 24)"

12. **Answer: c**

Explanation:

The correct order as per the English dictionary is:

1) **Seminar**

- 2) Semolina
- 3) Senior
- 4) September
- 5) Serious

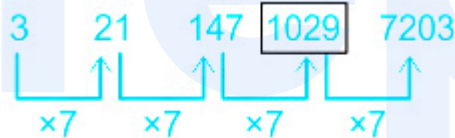
Hence, the correct answer is "1, 2, 3, 4, 5".

13. Answer: d

Explanation:

The logic followed here is:

Logic: The terms are multiplied by 7 to get the next term of the series.



Hence, the correct answer is "1029".

Your Personal Exams Guide

14. Answer: a

Explanation:

The logic followed here is:

Logic: The first word is the capital city of the second word which is a state.

Mumbai: Maharashtra

→ Mumbai is the capital city of Maharashtra.

Similarly,

Bhopal:?

→ Bhopal is the capital city of Madhya Pradesh.

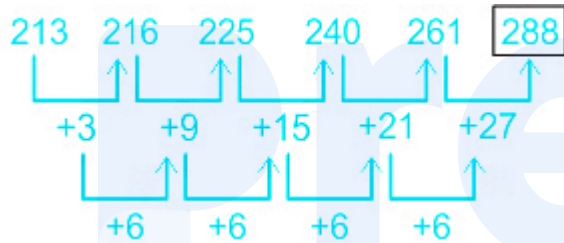
Hence, the correct answer is "Madhya Pradesh".

15. Answer: b

Explanation:

The pattern followed here is:

Given: 213, 216, 225, 240, 261, ?



Hence, the correct answer is "288".

Your Personal Exams Guide

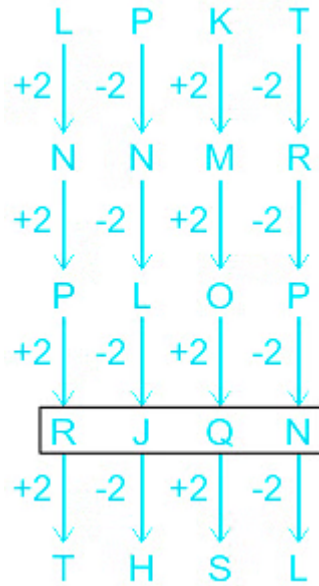
16. Answer: a

Explanation:

The position of the English alphabet series is given below:

Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

Given: LPKT, NNMR, PLOP, ?, THSL





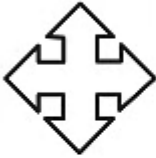




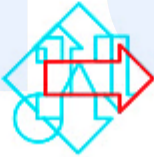
Hence, the correct answer is "RJQN".

17. Answer: b

Explanation:

The logic follow here is:

Your Personal Exams Guide

No.	Option	Question	Answer
1.			Not Embedded
2.			Embedded
3.			Not Embedded
4.			Not Embedded

Hence, the correct answer is "Option 2".

18. Answer: d

Explanation:

The pattern followed here is:

We have to put the signs in the given equations to make it correct.

Let's check each option one by one.

1) $\div, +, -, \times, =$

$$\Rightarrow \underline{89 \div 5} + 15 - 32 \times 8 = 18$$

$$\Rightarrow 17.8 + 15 - \underline{32 \times 8} = 18$$

$$\Rightarrow \underline{17.8 + 15} - 256 = 18$$

$$\Rightarrow \underline{32.8 - 256} = 18$$

$$\Rightarrow -223.2 \neq 18$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

$$2) \times, +, \div, -, =$$

$$\Rightarrow 89 \times 5 + \underline{15 \div 32} - 8 = 18$$

$$\Rightarrow \underline{89 \times 5} + 0.46875 - 8 = 18$$

$$\Rightarrow \underline{445 + 0.46875} - 8 = 18$$

$$\Rightarrow \underline{445.46875} - 8 = 18$$

$$\Rightarrow 427.46875 \neq 18$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

$$3) +, -, \div, \times, =$$

$$\Rightarrow 89 + 5 - \underline{15 \div 32} \times 8 = 18$$

$$\Rightarrow 89 + 5 - \underline{0.46875 \times 8} = 18$$

$$\Rightarrow 89 + 5 - 3.75 = 18$$

$$\Rightarrow 94 - 3.75 = 18$$

$$\Rightarrow 90.25 \neq 18$$

$$\Rightarrow \text{LHS} \neq \text{RHS}$$

$$4) -, \times, +, \div, =$$

$$\Rightarrow 89 - 5 \times 15 + \underline{32 \div 8} = 18$$

$$\Rightarrow 89 - \underline{5 \times 15} + 4 = 18$$

$$\Rightarrow \underline{89} - 75 + 4 = 18$$

$$\Rightarrow \underline{93} - 75 = 18$$

$$\Rightarrow 18 = 18$$

$$\Rightarrow \text{LHS} = \text{RHS}$$

Hence, the correct answer is "- , × , + , ÷ , =".

19. Answer: a

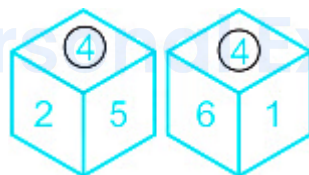
Explanation:

The pattern followed here is:

Logic: No two opposite faces are adjacent to each other.

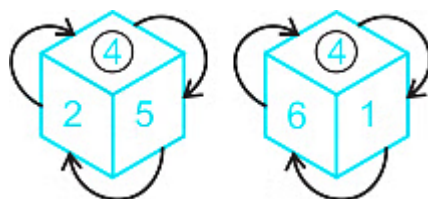
Let's find which number is faced opposite to face having '4'.

We are taking both dice figures (1) & (2) together.



Here, 4 are common in both dice.

Now, we are taking dice figures (1) & (2) together.



Here, 4 is common in both the dice and the rotated clockwise direction.

Opposite pairs:

$$\Rightarrow 5 \Leftrightarrow 1$$

$$\Rightarrow 2 \Leftrightarrow 6$$

$$\Rightarrow 4 \Leftrightarrow 3$$

Clearly, 4 is the opposite of 3.

Hence, the correct answer is "3".









20. Answer: b

Explanation:

The logic follow here is:

prepp

Your Personal Exams Guide

No.	Option	Question	Answer
1.			Not Embedded
2.			Embedded
3.			Not Embedded
4.			Not Embedded

Hence, the correct answer is "Option 2".

21. Answer: b

Explanation:

The correct answer is Article 17.

★ Key Points

- **Article 17:-**
 - Article 17 abolishes untouchability and forbids its practice in any form.
 - Indian Parliament passed an Untouchability (offenses) Act in 1955.

- Article 17 was adopted by the constituent assembly with slogans of “Mahatma Gandhi ki Jai”
- The term ‘untouchability’ is not defined in the Constitution or in the Act.

★ Additional Information

- Important Articles of Indian constitution

Article	Deals with
Article 14	Equality before Law.
Article 19	Freedom of Speech & Expression.
Article 21	Right to Life and Personal Liberty.
Article 21a	Right to Education.
Article 32	Constitutional Remedies.
Article 44	Uniform Civil code.
Article 51a	Fundamental Duties.
Article 112	Budget.
Article 324	Election Commission.
Article 343	Official Languages.
Article 352	National Emergency.
Article 368	Power of Parliament to amend the Constitution.
Article 370	Temporary provisions with respect to the state of Jammu and Kashmir(Revoked).

22. Answer: c

Explanation:

The correct answer is White

★ Key Points

- When magnesium burns in the presence of oxygen, it produces a bright white flame.
- The intense white light is a result of the high temperature and the emission of electromagnetic radiation across a broad spectrum, including visible light.
- This characteristic white light is often described as blinding or dazzling due to its brightness.

★ Additional Information

- **Magnesium:-**
 - Magnesium is a chemical element with the symbol "Mg" and atomic number 12.
 - It is a shiny gray metal and belongs to the alkaline earth metal group on the periodic table.
 - Magnesium is the eighth-most abundant element in the Earth's crust and the third-most abundant element dissolved in seawater.
- **Oxygen:-**
 - Oxygen is a chemical element with the symbol "O" and atomic number 8.
 - It is a member of the chalcogen group on the periodic table, a highly reactive nonmetal, and an oxidizing agent that readily forms oxides with most elements as well as with other compounds.
 - Oxygen is the third-most abundant element in the universe and makes up about 21% of Earth's atmosphere by volume.

23. Answer: d

Explanation:

The correct answer is Samudragupta.

★ Key Points

● **Samudragupta:-**

- He is also known as Samudra Gupta, was a prominent ruler of ancient India who reigned from around 335 to 380 CE.
- He belonged to the Gupta dynasty, which is considered a golden period in Indian history due to its advancements in art, science, literature, and administration
- Samudragupta was the son and successor of Chandragupta I, the founder of the Gupta Empire.
- He is often regarded as one of the greatest rulers of ancient India due to his military conquests, administrative abilities, and patronage of arts and culture.
- Samudragupta's reign is characterized by the expansion and consolidation of the Gupta Empire.

★ Additional Information

● **Chandragupta I:-**

- He is also known as Chandragupta Gupta, was the founder of the Gupta Empire in ancient India.
- He ruled from around 320 to 335 CE and laid the foundation for one of the most prosperous and influential dynasties in Indian history.
- Chandragupta I was born into a dynasty called the Gupta dynasty, which originated in the Magadha region of present-day Bihar.
- He married a princess named Kumaradevi from the Licchavi kingdom, a powerful political entity in northern India at that time.
- This marriage alliance helped consolidate Chandragupta's position and provided him with significant political support.

● **Chandragupta II:-**

- He is also known as Chandragupta Vikramaditya, was one of the most celebrated rulers of the Gupta Empire in ancient India.
- He reigned from around 380 to 415 CE and is considered one of the greatest kings of the Gupta dynasty
- .Chandragupta II was the son and successor of Samudragupta, the ruler known for his military conquests and patronage of arts and culture.

- Under Chandragupta II's rule, the Gupta Empire reached its zenith, and it was a period of remarkable cultural and economic growth.

24. Answer: d

Explanation:

The correct answer is Bharatanatyam.

★ Key Points

• **E. Krishna Iyer:-**

- E. Krishna Iyer refers to E. Krishna Iyer, a prominent Indian jurist and former judge of the Supreme Court of India.
- He was born on November 15, 1915, in Palakkad, Kerala, India, and passed away on December 4, 2014.
- E. Krishna Iyer was known for his progressive and activist approach to law.
- During his tenure as a judge, he delivered several landmark judgments that had a significant impact on Indian jurisprudence.
- He was known for his commitment to social justice and his efforts to protect the rights of the marginalized and disadvantaged sections of society.
- He was a follower of traditional Isaivellalar practitioners of Sadir, also known as Bharatanatyam.

• **Bharatanatyam**

- Bharatanatyam is a classical Indian dance form that originated in the state of Tamil Nadu in South India.
- It is one of the oldest and most widely practiced classical dance forms in India.
- Bharatanatyam is known for its intricate footwork, expressive hand gestures, facial expressions, rhythmic movements, and storytelling.
- The dance form incorporates elements of both pure dance (nritta) and expressive storytelling (nritya).
- It follows a codified structure and grammar known as "Margam," which consists of various components such as Alarippu, Jatiswaram, Varnam,

Padam, and Tillana.

- Each component serves a specific purpose and showcases different aspects of the dancer's skills.

★ Additional Information

- **Kathak:**

- Origin: Northern India.
- Features: Fast footwork (tatkar), spins and pirouettes (chakkar), rhythmic patterns, intricate hand gestures, storytelling through dance (narrative form), emphasis on grace, facial expressions, and fluid movements, utilization of Ghungroo (musical anklets).

- **Odissi:**

- Origin: Odisha
- Features: Tribhangi (three-body bends), graceful movements, fluid torso and hip movements, storytelling through dance (narrative form), intricate footwork, hand gestures (mudras), elaborate facial expressions, use of silk costumes and jewelry.

- **Kathakali:**

- Origin: Kerala
- Features: Elaborate makeup and costumes, highly stylized facial expressions, exaggerated eye movements, hand gestures (mudras), storytelling through dance (narrative form), intense footwork, acrobatic movements, use of elaborate headdresses and facial masks.

- **Manipuri:**

- Origin: Manipur
- Features: Gentle and graceful movements, rounded and flowing footwork, soft hand gestures, storytelling through dance (narrative form), use of elaborate costumes, emphasis on spirituality and devotion, incorporation of martial arts elements.

- **Kuchipudi:**

- Origin: Andhra Pradesh
- Features: Intricate footwork, fluid movements, quicksilver footwork, storytelling through dance (narrative form), graceful hand gestures (mudras), dramatic facial expressions, incorporation of both masculine and feminine elements, dynamic body movements.

- **Mohiniyattam:**
 - Origin: Kerala
 - Features: Lyrical and graceful movements, gentle swaying of the body, subtle facial expressions, storytelling through dance (narrative form), delicate hand gestures (mudras), emphasis on femininity and sensuality, use of white and gold costumes.
- **Sattriya:**
 - Origin: Assam
 - Features: Devotional in nature, intricate footwork, graceful hand gestures, storytelling through dance (narrative form), emphasis on facial expressions, fluid torso movements, utilization of masks and costumes inspired by Vaishnavite tradition.

25. Answer: c

Explanation:

The correct answer is 10 years.

★ Key Points

- Population census:-
 - It is a systematic collection of demographic, social, and economic data of all individuals within a specific geographic region.
 - It aims to gather comprehensive information about the population to provide a reliable basis for policymaking, planning, and resource allocation.
 - In India, the population census is conducted once every ten years.
 - The last population census conducted in India took place in 2011.

★ Additional Information

- Other census parameters according to 2011 data:-

Population	Total	1,210,854,977
	Males	623,724,568
	Females	586,469,294
Literacy	Total	74%
	Males	82.10%
	Females	65.46%
Density of population	per km ²	382
Sex ratio	per 1000 males	943 females
Child sex ratio (0–6 age group)	per 1000 males	914 females

26. Answer: b

Explanation:

The correct answer is Germany.

★ Key Points

- **Lusofonia Games:-**

- The Lusofonia Games, also known as the Jogos da Lusofonia, is a multinational multi-sport event held among athletes from Portuguese-speaking countries.
- The games are organized by the Association of Portuguese-Speaking Olympic Committees (ACOLOP) and are held every four years.
- The first edition of the Lusofonia Games took place in 2006 in Macau, China.
- The event was created to strengthen the cultural and sporting ties among Portuguese-speaking countries, promoting friendship and cooperation among the participating nations.
- The games also aim to provide a platform for athletes from these countries to showcase their talent on an international stage.

- **Germany:-**

- Germany, officially known as the Federal Republic of Germany, is a country located in Central Europe.
- It is bordered by nine other countries: Denmark to the north, Poland and the Czech Republic to the east, Austria and Switzerland to the south, France and Luxembourg to the southwest, Belgium to the west, and the Netherlands to the northwest.
- Germany has a diverse landscape that includes the North European Plain, the Central Uplands, and the Bavarian Alps.

★ **Additional Information**

- **India:-**

- **It is** officially known as the Republic of India, is a country located in South Asia.
- It is the seventh-largest country by land area and the second-most populous country in the world, with over 1.3 billion people.

- **Macau:-**

- It is officially known as the Macao Special Administrative Region of the People's Republic of China, is a region located on the southern coast of China. It is situated on the western bank of the Pearl River Delta, across from Hong Kong.

- **Portugal:-**

- It is officially known as the Portuguese Republic, is a country located in southwestern Europe on the Iberian Peninsula. It shares its borders with Spain to the east and north, and is surrounded by the Atlantic Ocean to the west and south. Portugal also includes the autonomous regions of the Azores and Madeira, located in the Atlantic Ocean.

27. Answer: a

Explanation:

The correct answer is Radio Club of Bombay.

★ Key Points

- **Radio Club of Bombay:-**
 - The Radio Club of Bombay, also known as the RCBC, is a prominent members-only social club located in Mumbai, India.
 - It was founded in 1928 and is situated in a heritage building overlooking the Arabian Sea at Colaba, one of Mumbai's popular neighborhoods.
 - The Radio Club of Bombay offers a wide range of recreational and leisure facilities to its members.
 - The club is known for its sports facilities, including tennis courts, squash courts, and a swimming pool.
 - It also has a gymnasium, billiards room, and a library.

★ Additional Information

- **The Lions Club of Bombay:-**
 - It is also known as the Bombay Lions Club, is a branch of Lions Clubs International located in Mumbai, India.
 - Lions Clubs International is a global non-profit organization known for its philanthropic activities and community service.
- **The Rotary Club of Bombay:-**
 - It is a prominent service organization based in Mumbai, India.
 - It is one of the oldest and most prestigious Rotary Clubs in India, chartered on 19th February 1929.

- The club is part of Rotary International, a global network of service clubs that aims to provide humanitarian services, promote goodwill, and foster peace and understanding.
 - **The Rotaract Club of Bombay:-**
 - It is a youth-based community service organization affiliated with Rotary International.
 - Rotaract clubs are sponsored by local Rotary clubs and provide young adults between the ages of 18 and 30 with opportunities for personal development, leadership, and community service.
-

28. Answer: a

Explanation:

The correct answer is [Article 324](#)

★ Key Points

- **Article 324 :**
 - Article 324 in the Indian Constitution gives power to the Election Commission to direct, control, and conduct elections to all Parliament, to the Legislature of every state, and of elections to the offices of the President and Vice President held under the Constitution.
 - Article 324 of the Constitution vests the "superintendence, direction and control of elections" in an Election Commission consisting "of the Chief Election Commissioner and a such number of other Election Commissioners, if any, as the President may from time to time fix".

Article	Description
325	No person to be ineligible for inclusion in, or to claim to be included in a special, electoral roll on grounds of religion, race, caste or sex
326	Elections on the basis of adult suffrage
327	Power of Parliament to make provision with respect to elections to Legislatures Subject to the provisions of this constitution
328	Power of Legislature of a State to make provision with respect to elections
329	Bar to interference by courts in electoral matters

★ Additional Information

- Article 333:-
 - The Legislative Assembly consists of **175 elected members** and one member nominated by the **Governor** from among Anglo-Indian Community, under **Article 333 of the Constitution of India**.
 - The duration of the Assembly is five years from the date appointed for its first meeting, unless sooner dissolved.
- **Article 367**- States about the Interpretation of miscellaneous provisions.
- **Article 356**
 - It states that "If the President, on receipt of a report from the Governor of the State or otherwise, is satisfied that a situation has arisen in which the government of the State cannot be carried on in accordance with the provisions of this Constitution, the President may be Proclaim emergency in a state".

29. Answer: b

Explanation:

The correct answer is Vinai Kumar Saxena.

★ Key Points

- **Vinai Kumar Saxena:-**
 - Shri Vinai Kumar Saxena took over as the 22nd Lieutenant Governor of Delhi on 26th May 2022. Shri Saxena, 63, comes with over three decades of vast experience in the corporate and social sectors and is the first corporate man ever selected for such gubernatorial post.
 - Prior to his appointment as the LG of Delhi, Shri Saxena served as the Chairman of the Khadi & Village Industries Commission (KVIC) from October 2015 to May 2022. At KVIC,

★ Additional Information

- **Anil Baijal:-**
 - He is an Indian civil servant and politician who served as the Lieutenant Governor of Delhi from December 2016 to December 2021.
 - He was born on October 1, 1946, in Agra, Uttar Pradesh, India.
- **Arvind Kejriwal:-**
 - He is an Indian politician and the current Chief Minister of Delhi.
 - He was born on August 16, 1968, in Siwani, Haryana, India.
 - Kejriwal is the national convener of the Aam Aadmi Party (AAP), a political party that emerged in 2012 with a focus on anti-corruption and good governance.
- **Manoj Sinha:-**
 - He is an Indian politician and member of the Bharatiya Janata Party (BJP).
 - He served as the Lieutenant Governor of the Union Territory of Jammu and Kashmir from August 2020 to March 2021.
 - Sinha was born on July 1, 1959, in Mohanpura, Ghazipur, Uttar Pradesh, India.

30. Answer: c

Explanation:

The correct answer is Export.

★ Key Points

- **Export:-**
 - Export is indeed an important factor that is taken into account when computing the national income of a country.
 - When calculating the national income, the value of exports is included as it represents the income generated from selling goods and services produced domestically to other countries.
 - Export earnings contribute to the overall economic activity and income of a nation.
 - They are considered a positive factor in the calculation of national income as they represent an inflow of money into the
 - **Other factors that are considered include wages, salaries, profits, rents, and other forms of income generated by individuals and businesses within the country.**
 - **Additionally, factors such as taxes, subsidies, depreciation, and net foreign income are also taken into consideration to arrive at a comprehensive measure of the national income.**

★ Additional Information

- **National income:-**
 - It refers to the total value of goods and services produced within a country's borders over a specific period, usually a year.
 - It is a measure of a nation's economic activity and is often used as an indicator of its overall economic health.
 - There are different approaches to calculating national income, but one commonly used method is the expenditure approach.

- While computing the national income, various factors are taken into account. One important factor is the Export.
- The formula to calculate national income using the expenditure approach is as follows:
- **National Income = Consumption Expenditure (C) + Investment Expenditure (I) + Government Expenditure (G) + Net Exports (NX)**

31. Answer: d

Explanation:

The correct answer is Ambubachi Mela.

★ Key Points

- **The Ambubachi Mela:-**
 - It is also known as Ambubasi festival or Ameti festival, is an annual religious festival celebrated in the Kamakhya Temple in Guwahati, Assam, India.
 - It is one of the most important festivals in the state of Assam and attracts thousands of devotees from various parts of the country.
 - The festival is centered around the Kamakhya Devi Temple, which is dedicated to the Hindu goddess Kamakhya.
 - According to Hindu mythology, during the festival, the goddess Kamakhya is believed to undergo her annual menstrual cycle.
 - The temple remains closed for three days during this period as it is considered to be an impure time.
- **Goddess Kamakhya:-**
 - It is a prominent deity in Hindu mythology, particularly in the Shakta tradition.
 - She is revered as a powerful and fertility goddess, often associated with feminine energy and the creative force of the universe.
 - Kamakhya is primarily worshipped in the Kamakhya Temple, located on the Nilachal Hill in Guwahati, Assam, India.

★ Additional Information

- **Moatsu:-**
 - It is a significant festival celebrated by the Ao Naga tribe in the northeastern state of Nagaland, India.
 - It is observed in the month of May every year, specifically from the 1st to the 7th of the month.
- **Chapchar Kut:-**
 - It is a harvest festival celebrated by the Mizos, an ethnic group predominantly found in the northeastern state of Mizoram, India, as well as in parts of Myanmar and Bangladesh.
 - It is one of the most important festivals for the Mizo people and is usually held in March after the completion of the jhum (shifting cultivation) cycle.
- **Wangala:-**
 - Wangala is a harvest festival celebrated by the Garo tribe, which is one of the major indigenous communities in the northeastern region of India, particularly in the states of Meghalaya, Assam, and parts of Bangladesh.
 - The festival is also known as Wangala or Drua Wanbola and is considered one of the most significant cultural events for the Garo people.

32. **Answer: c**

Explanation:

The correct answer is electronics.

★ Key Points

- **The electronics industry:-**
 - It encompasses the manufacturing, design, and sale of electronic components and devices.
 - It includes a broad range of products such as consumer electronics (e.g., televisions, smartphones, laptops, and home appliances), electronic components (e.g., semiconductors, integrated circuits, and resistors),

communication devices, medical equipment, automotive electronics, and much more.

- The industry plays a crucial role in various sectors, including technology, telecommunications, healthcare, automotive, and entertainment.

★ Additional Information

● **The fertilizer industry:-**

- It involves the production, distribution, and sale of fertilizers. Fertilizers are substances or mixtures applied to soil or plants to provide essential nutrients that promote plant growth and increase agricultural productivity. They are used in various sectors, primarily in agriculture, horticulture, and gardening.

● **Canal irrigation:-**

- It refers to the use of canals to distribute water for agricultural purposes.
- It involves the construction of man-made channels, known as canals, to divert water from rivers, reservoirs, or other water sources and deliver it to fields for irrigation.
- This method has been used for centuries and has played a significant role in agricultural development in many regions.

● **Jute processing:-**

- It refers to the various steps involved in converting raw jute fibers into usable products. Jute is a natural fiber obtained from the stems of the jute plant, primarily grown in regions such as Bangladesh and India.
- It is known for its strength, versatility, and eco-friendliness, and it is used in the production of a wide range of products.

33. **Answer: b**

Explanation:

The correct answer is Liver fluke.

★ Key Points

- **Liver fluke:-**

- Liver flukes are a type of parasitic flatworm that infects the liver of various animals, including humans. The most common liver fluke species that infect humans are *Fasciola hepatica* and *Fasciola gigantica*.
- These parasites are prevalent in certain parts of the world, particularly in regions with agricultural practices involving the consumption of raw or undercooked freshwater plants contaminated with the fluke's larvae.
- **Coelenterata phylum:-**
 - The phylum Coelenterata, also known as Cnidaria, is a diverse group of aquatic animals that includes jellyfish, corals, sea anemones, and hydroids.
 - However, it's important to note that the term "Coelenterata" is considered outdated and is no longer used in modern taxonomic classifications.
 - The phylum Cnidaria is the accepted and current term for this group of animals.

★ Additional Information

- **Sea pen:-**
 - It is a type of marine animal belonging to the order Pennatulacea.
 - Sea pens are colonial organisms that resemble old-fashioned quill pens, hence their name.
 - They are soft-bodied and belong to the same phylum as corals and sea anemones, known as Cnidaria.
- **Brain coral**
 - It is a type of coral that belongs to the family Mussidae and the order Scleractinia.
 - It is named after its unique appearance, which resembles the convoluted surface of a brain.
 - Brain corals are found in tropical and subtropical marine environments, particularly in the Caribbean Sea and the Indo-Pacific region.
- **Sea anemone:-**
 - It is a marine invertebrate belonging to the phylum Cnidaria.
 - They are closely related to jellyfish and coral and are known for their unique appearance and behavior.
 - Sea anemones are named after the terrestrial flower, as their body shape and colorful tentacles resemble the petals of an open flower.

34. Answer: c

Explanation:

The correct answer is Pradhan Mantri Awas Yojana (Urban).

★ Key Points

- **Pradhan Mantri Awas Yojana (Urban):-**
 - It is a flagship housing scheme launched by the Government of India with the aim of providing affordable housing for all urban households by the year 2022.

★ Additional Information

- **O-SMART:-**
 - It is (Ocean Services, Modelling, Applications, Resources, and Technology) Scheme is an initiative of the Government of India launched by the Ministry of Earth Sciences.
 - It aims to strengthen the country's capabilities in ocean research, monitoring, and forecasting, as well as promote sustainable development and management of marine resources.
- **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY):-**
 - It is a social welfare scheme launched by the Government of India to provide free food grains to the vulnerable and economically weaker sections of society.
 - PMGKAY was launched in March 2020 as part of the government's response to the COVID-19 pandemic and the resulting economic hardships faced by the poor.
- **Global Housing Technology Challenge (GHTC):-**
 - It is an initiative launched by the Government of India with the aim of promoting innovative and sustainable housing solutions.
 - The GHTC was launched in January 2019 by the Ministry of Housing and Urban Affairs, Government of India.

35. Answer: b

Explanation:

The correct answer is Patiala

★ Key Points

- **Indian Grand Prix-4 :-**
 - The **Athletics Federation of India (AFI)** held the Indian Grand Prix IV in **June 2021**.
 - It was held at the **National Institute of Sports (NIS)** in Patiala.
- **Patiala:-**
 - Patiala is a city located in the state of Punjab, India.
 - It is the fourth-largest city in Punjab and serves as the administrative capital of the Patiala district.
 - Patiala is known for its rich cultural heritage, historical landmarks, and royal architecture.

★ Additional Information

- **Amritsar:-**
 - It is located in the northwestern part of India, in the state of Punjab.
 - It is known as the spiritual and cultural center of the Sikh religion.
 - Home to the famous Golden Temple, also known as Harmandir Sahib, the holiest gurdwara (Sikh place of worship).
- **Jalandhar:-**
 - Located in the Doaba region of Punjab, Jalandhar is one of the major cities in the state.
 - Known for its industrial and commercial significance, with a thriving manufacturing sector.
 - The city is a hub for sports goods manufacturing, leather goods, textiles, and surgical instruments.
- **Ludhiana:-**
 - Located on the banks of the Sutlej River, Ludhiana is the largest city in Punjab and one of the major industrial hubs in India.

- Known as the "Manchester of India" due to its thriving textile industry, including hosiery, woolens, and cotton garments.

36. Answer: b

Explanation:

The correct answer is dam.

★ Key Points

- **Dam:-**
 - A dam is a structure built across a river or stream to hold back water.
 - Manmade dams create artificial lakes called reservoirs.
 - Reservoirs can be used to store water for farming, industry, and household use.

★ Additional Information

- **Meander:-**
 - The formation of successive bends of reverse order may lead to the formation of a complete S curve called Meanders.
 - When consecutive curves of reverse order connected with short straight reaches called crossings are developed in a river reach, the river is started to be a meandering river.
- **Tributary:-**
 - A tributary is a freshwater stream that feeds into a larger stream or river.
 - The larger, or parent, river is called the mainstem.
 - The point where a tributary meets the mainstem is called the confluence.
 - Tributaries, also called affluents, do not flow directly into the ocean.
- **Moat:-**
 - It is a pulley system of Irrigation.

37. Answer: b

Explanation:

The correct answer is Radha Sridhar

★ Key Points

- Radha Sridhar received the Sangeet Natak Akademi Award for the year 2018 for her contribution to **Bharatanatyam**.
- **Bharatnatyam:-**
 - The dance origin can be traced back to Sadir-the solo dance of temple dancers or devadasis in Tamil Nadu.
 - **Bharatnatyam** is also known as **Dashiattam**.
 - Elements of Bharatnatyam
 - **Alarippu**-seeking blessing of god with simple dance steps in rhythm.
 - **Jatiswaram**-Nritta component with devoid expression.
 - **Shabdham**-dramatic element with expressed words.
 - **Varnam**-combination of dance and emotion to express a story.
 - **Padam**-mastery over abhinaya of a spiritual message by the artist.
 - **Jawali**-Its performed at short love lyrics at a fast tempo.
 - **Thillana**-Its is known as the concluding Stage with pure dance(Nritta).
- ★ Additional Information
- **Madambi Subramanian Namboodiri:-**
 - Madambi Subramanian Namboodiri is a **Kathakali musician from Kerala, India**.
 - He received several noted awards including the **Sangeet Natak Akademi Award, Kerala State Kathakali Award, Kerala Sangeetha Nataka Akademi Award and Kerala Kalamandalam Award**.
- **Pasumurthy Ramalinga Sastry:-**
 - He has been **servicing in the University of Hyderabad for the past two decades imparting training in Bharatanatyam to young student aspirants**.
 - In 2016, he has received the prestigious **KALA RATNA award for his contribution to dance in India** from the then Hon'ble Chief Minister of Andhra Pradesh Shri. Nara Chandra Babu Naidu at Vijayawada.

- **Akham Lakshmi Devi:-**
 - Akham Lakshmi Devi is a **pioneer Classical Solo and Manipuri duet dance artiste.**
 - Lakshmi has performed in most of the major dance festivals in the country and abroad including **Khajuraho, Konark festivals, and dance festivals under Sangeet Natak Akademi.**

38. Answer: d

Explanation:

The correct answer is Hardeep Singh Puri

★ Key Points

- **India Water Pitch-Pilot-Scale Start-up Challenge:**
 - India Water Pitch-Pilot-Scale Start-up **AMRUT 2.0** established a challenge to **promote creativity and design.**
 - The purpose is to **enable startups** in the water and **used-water sectors** to **expand via innovation and design**, which will **provide employment opportunities** and support economic growth.
- **Hardeep Singh Puri:-**
 - Shri Hardeep Singh Puri is an Indian Politician, Former Diplomat and Author.
 - He was inducted into the Council of Ministers as Minister of State (Independent Charge) for Housing and Urban Affairs in Sep 2017.
 - He was given additional charge of Minister of State (Independent Charge) for Civil Aviation and the Minister of State for Commerce and Industry in May 2019.
 - He was sworn in as Union Minister in July 2021 and currently, he is the Minister of Housing and Urban Affairs & Petroleum and Natural Gas.
 - A 1974-batch Indian Foreign Service officer, he served as the Permanent Representative of India to the United Nations in Geneva and New York and served additionally in Tokyo and Colombo.

★ Additional Information

- **Kaushal Kishore:-**
 - He is the Minister of State for the Ministry of Housing and Urban Affairs, Government of India since 7 July 2021.
- **D Thara:-**
 - D Thara is joint secretary (AMRUT) of the Ministry of Housing and Urban Affairs, Government of India.
 - A 1995-batch IAS officer of Gujarat cadre, he has been holding the post since July 25, 2019.
- **Manoj Joshi:-**
 - He is a Secretary in Ministry of Housing & Urban Affairs, Government of India.
 - He is 1989 IAS batch from Kerala Cadre.

39. **Answer: a**

Explanation:

The correct answer is Arya Samaj.

★ Key Points

- **Swami Dayanand Saraswati:-**
 - Dayananda Saraswati [1824-1883] was the first to give the call for Swarajya – "India for Indians" – in 1876.
 - For his own inspiration, Swami Dayanand went to the Vedas which he regarded as infallible.
 - He rejected all later religious thought if it conflicted with the Vedas.
 - This total dependence on Vedas and their infallibility gave his teachings orthodox coloring.
 - He was opposed to idolatry, ritual, and priesthood and particularly to the prevalent caste practices and popular Hinduism as preached by Brahmins

- Swami Dayanand met Keshub Chandra Sen, Vidyasagar, Justice Ranade, Gopal Hari Deshmukh, and other modern religious and social reformers.
- **He took inspiration from the Vedas and considered them to be 'India's Rock of Ages, the infallible, and the true original seed of Hinduism.**
- He gave the slogan "Back to the Vedas".
- **Dayananda's slogan of 'Back to the Vedas' was a call for a revival of Vedic learning and Vedic purity of religion and not a revival of Vedic times.**
- He accepted modernity and displayed a patriotic attitude to national problems.
- **Arya Samaj:-**
 - Arya Samaj is a Hindu reform movement founded by 'Swami Dayanand Saraswati'.
 - Dayanand Saraswati had inspired the Arya Samaj from Swami Virjanand of Mathura in Bombay in 1875.
 - Arya Samaji believed in pure Vedic tradition and rejected idol worship, avatars, sacrifice, false rituals, and superstitions.
 - In this, untouchability and caste discrimination were opposed and women and Shudras were also given the right to wear Yagyopaveet and read the Vedas.

★ Additional Information

- **Vedant Samaj:-**
 - It also known as the Vedanta Society, is a religious and philosophical organization based on the teachings of Vedanta, a school of Hindu philosophy.
 - Vedanta is derived from the Upanishads, ancient texts that form the philosophical and spiritual foundation of Hinduism.
- **Adi Dharma Samaj:-**
 - It is a religious and social organization based in Bali, Indonesia. It was founded in the early 20th century as a response to the dominant religious practices of the time, which were primarily based on Hinduism.
 - Adi Dharma Samaj sought to promote a form of Hinduism that was more inclusive and accessible to the local Balinese people.

40. Answer: b

Explanation:

The correct answer is 38.6 percent

★ Key Points

- **Gross domestic product (GDP):-**
 - Gross domestic product (GDP) is the **monetary value of all finished goods and services made within a country during a specific period.**
 - GDP provides an **economic snapshot of a country**, used to estimate the **size of an economy and its growth rate.**
 - GDP can be **calculated in three ways**, using **expenditures, production, or incomes.** It can be adjusted for inflation and population to provide deeper insights.
 - Though it has limitations, GDP is a key tool to guide policy-makers, investors, and businesses in **strategic decision-making.**
 - **Services sector accounted for 38.6 % in the 1980s GDP. (Hence option 2 is correct)**

★ Additional Information

- **Types of GDP:-**

Real GDP	Nominal GDP
<p>Real GDP is an inflation-adjusted measure that reflects the number of goods and services produced by an economy in a given year, with prices held constant from year to year to separate out the impact of inflation or deflation from the trend in output over time.</p> <ul style="list-style-type: none"> • Since GDP is based on the monetary value of goods and services, it is subject to inflation. Rising prices will tend to increase a country's GDP, but this does not necessarily reflect any change in the quantity or quality of goods and services produced. Thus, by looking just at an economy's nominal GDP, it can be difficult to tell whether the figure has risen because of a real expansion in production or simply because prices rose. 	<p>Nominal GDP is an assessment of economic production in an economy that includes current prices in its calculation.</p> <ul style="list-style-type: none"> • In other words, it doesn't strip out inflation or the pace of rising prices, which can inflate the growth figure. • All goods and services counted in nominal GDP are valued at the prices that those goods and services are actually sold for in that year. Nominal GDP is evaluated in either the local currency or U.S. dollars at currency market exchange rates to compare countries' GDPs in purely financial terms.

41. Answer: a

Explanation:

Given:

Initial Value (V1) = Rs. 18,000

Final Value after 2 years (V2) = Rs. 14,580

Time (t) = 2 years

Formula Used:

The formula for depreciation (when depreciation rate is constant) is given by:

$$V_2 = V_1 \times (1 - r/100)^t$$

$$r = 100 \times (1 - (V_2/V_1)^{(1/t)})$$

Where:

V_2 is the final value,

V_1 is the initial value,

r is the rate of depreciation (in percentage),

t is the time (in years).

Calculation:

$$r = 100 \times (1 - (V_2/V_1)^{(1/t)})$$

$$\Rightarrow r = 100 \times (1 - (14580/18000)^{(1/2)})$$

$$\Rightarrow r = 100 \times (1 - (0.81)^{0.5})$$

$$\Rightarrow r = 100 \times (1 - 0.90)$$

$$\Rightarrow r = 10 \%$$

So, the yearly rate of depreciation is approximately 10%.

42. Answer: b**Explanation:**

Given:

Ramu can complete the work in 10 hours.

Mohan can complete the work in 16 hours.

Concept Used:

$$\text{Work} = \text{Time} \times \text{Efficiency}$$

Calculation:

$$\text{Total work} = \text{LCM}(10, 16) = 80 \text{ units}$$

$$\text{Efficiency of Ramu} = 80/10 = 8$$

$$\text{Efficiency of Mohan} = 80/16 = 5$$

When they work together, their combined efficiency is:

$$\Rightarrow 8 + 5 = 13$$

They work together for 2 hours, so the amount of work they complete is:

$$\Rightarrow 2 \times 13 = 26 \text{ units}$$

$$\text{Remaining work} = 80 - 26 = 54 \text{ units}$$

$$\text{Days taken by Ramu complete the remaining work} = 54/8 = 6.75 \text{ hours}$$

Therefore, Ramu will finish the remaining work in 6.75 hours.

43. Answer: d

Explanation:

Given:

$$\text{Speed} = 108 \text{ km/h}$$

$$\text{Time} = 3 \text{ h}$$

Formula:

Distance = Speed × Time

Solution:

The distance covered by the car is $108 \times 3 = 324$ km.

If the speed is reduced by 27 km/h, the new speed is $108 - 27 = 81$ km/h.

The new time taken by the car to cover the same distance is $324/81 = 4$ h.

Therefore, the time taken by the car to cover the same distance will be 4 h.

The answer is 4 h.

44. Answer: a

Explanation:

Given:

Speed on the way out 4 km/h

Speed on the way back: 3 km/h

Formula:

$$\text{Average speed} = \frac{2s_1s_2}{(s_1+s_2)}$$

Solution:

$$\text{Average speed} = \frac{2s_1s_2}{(s_1+s_2)}$$

$$(2 \times 4 \times 3)/(4 + 3)$$

$$3.43 \text{ km/h}$$

Therefore, the average speed for the entire journey is 3.43 km/h.

45. Answer: b

Explanation:

Given:

Rohan divides his journey into three equal parts.

Speed during the first part (v_1) = 30 km/h

Speed during the second part (v_2) = 40 km/h

Speed during the third part (v_3) = 50 km/h

We need to find:

Let's substitute the given values into the formula:

$$v_{\text{avg}} = 3 / (1/30 + 1/40 + 1/50)$$

Now, let's calculate this.

$$\text{Average} = (3 \times 300) / (10 + 7.5 + 6)$$

$$38 \frac{14}{47} \text{ km/hr}$$

So, the average speed of Rohan's car during his entire journey is $38 \frac{14}{47}$ km/hr.

46. Answer: c

Explanation:

Calculation:

We can calculate the number taken to complete the work using the formula

$$\text{Days} = y(x + n) / (x + y)$$

Where x and y are the number of days taken by A and B.

And n is the number of days before A left

Here we have $x = 8$, $y = 24$ and $n = 4$

Hence, days required = $24 \times (8 + 4)/(8 + 24)$

$$= 24 \times 12/32$$

$$= 9 \text{ days}$$

\therefore Option 3 is the correct answer.

47. Answer: a

Explanation:

Given:

Thief's initial speed (V_t) = 60 km/h

Police's speed (V_p) = 80 km/h

Time elapsed before police starts (T) = 30 minutes = 0.5 hours

Formula:

Distance (D) = Speed (V) \times Time (T)

Solution:

Let the time take by police to catch the thief is t .

$$t = (60 \text{ km/h} \times 0.5)/(80 \text{ km/h} - 60 \text{ km/h})$$

$$t = (30 \text{ km/h})/(20 \text{ km/h})$$

$$t = 3/2 \text{ hr}$$

Therefore, the police will take $3\frac{1}{2}$ hours to catch the thief.

48. Answer: b

Explanation:

Given:

The difference between compound interest on a sum of Rs.5,750 for one year at the rate of 16% per annum, interest compounded yearly and half yearly.

Concept:

Compound interest

Calculation:

Yearly at the rate of 16% for one year is 16%

Half-yearly = $16/2 = 8\%$

Compound interest for one year is $(x + y + \frac{xy}{100})\%$

Compound interest for one year at 8% = $(8 + 8 + \frac{64}{100})\%$

⇒ 16.64% is the half yearly interest

Difference of yearly and half yearly interest rate

⇒ $16.64\% - 16\% = 0.64\%$

Now 0.64% of 5,750

⇒ $\frac{64}{10000} \times 5750 = 36.80$

49. Answer: a

Explanation:

Given:

$$\left[\frac{-4}{7} \div \frac{1}{12} \right] \div \left[-\frac{4}{5} \times \left\{ (-2) - \left(-\frac{2}{7}\right) \right\} \right]$$

Concept used:

Follow the BODMAS rule according to the table given below:

B	Brackets in order (), {}, []	ब्रैकेट (), {}, [] क्रम में
O	of	का
D	Division (÷)	विभाजन (÷)
M	Multiplication (×)	गुणा (×)
A	Addition (+)	जोड़ (+)
S	Subtraction (-)	घटाव (-)

Calculation:

$$\left[\frac{-4}{7} \div \frac{1}{12} \right] \div \left[-\frac{4}{5} \times \left\{ (-2) - \left(-\frac{2}{7}\right) \right\} \right]$$

$$\Rightarrow \left[\frac{-4}{7} \times 12 \right] \div \left[-\frac{4}{5} \times \left\{ (-2) + \left(\frac{2}{7}\right) \right\} \right]$$

$$\Rightarrow \left[\frac{-48}{7} \right] \div \left[-\frac{4}{5} \times \left(\frac{-12}{7}\right) \right]$$

$$\Rightarrow \left[\frac{-48}{7} \right] \div \left[\frac{48}{35} \right]$$

$$\Rightarrow \left[\frac{-48}{7} \right] \times \left[\frac{35}{48} \right]$$

$$\Rightarrow -5$$

50. **Answer: a**

Explanation:

Given:

Ratio of volumes of two cones = 3 : 2

Ratio of radii of the two cones = 3 : 4

Formula:

The volume of a cone is given by the formula:

$$V = (1/3)\pi r^2 h$$

Solution:

Let's assume the radii of the two cones are $3x$ and $4x$, where x is a common factor.

So, the ratio of their radii is $3x : 4x$.

The volume of the first cone (V_1) can be expressed as:

$$V_1 = (1/3)\pi(3x)^2 h_1$$

$$V_1 = (1/3)\pi 9x^2 h_1$$

The volume of the second cone (V_2) can be expressed as:

$$V_2 = (1/3)\pi(4x)^2 h_2$$

$$V_2 = (1/3)\pi 16x^2 h_2$$

Given that the ratio of volumes of the two cones is 3 : 2, we have:

$$V_1/V_2 = 3/2$$

$$9x^2 h_1 / 16x^2 h_2 = 3/2$$

$$h_1 / h_2 = 48x^2 / 18x^2$$

$$h_1/h_2 = 8/3$$

Therefore, the ratio of the heights of the two cones is 8 : 3.

51. Answer: b

Explanation:

Given:

Total number of voters (N) = 90000

Percentage of votes polled = 70%

Percentage of votes in favor of candidate A = 60%

Formula:

Number of votes received by a candidate = (Percentage of votes × Total number of voters) / 100

Solution:

Number of votes polled = $(70/100) \times 90000$

Number of votes polled = 63000

Number of votes in favor of candidate A = $(60/100) \times 63000$

Number of votes in favor of candidate A = 37800

Since there were only two candidates, the remaining votes would be in favor of candidate B.

Number of votes received by candidate B = Total number of votes polled - Number of votes in favor of candidate A

Number of votes received by candidate B = 63000 - 37800

Number of votes received by candidate B = 25200

Therefore, candidate B received 25,200 votes.

52. Answer: b

Explanation:

Given:

The curved surface area of a sphere is 1386 cm^2 .

Formula used:

Surface area of a sphere with radius 'r' = $4\pi r^2$

Volume of sphere is $\frac{4}{3} \pi r^3$

Calculation:

Surface area of a sphere with radius 'r' = $4\pi r^2$

$$\Rightarrow 4 \times \frac{22}{7} \times r^2 = 1386$$

$$\Rightarrow r^2 = 110.25$$

$$\Rightarrow r = \sqrt{110.25} = 10.5 \text{ cm}$$

Volume of sphere is $\frac{4}{3} \pi r^3$

$$\frac{4}{3}\pi(10.5)^3$$

$$\frac{4}{3} \times \frac{22}{7} \times 21/2 \times 21/2 \times 21/2$$

$$4851 \text{ cm}^3$$

\therefore Option 2 is the correct answer.

53. Answer: b

Explanation:

Given:

Container 1 capacity = 20 liters

Container 2 capacity = 36 liters

The ratio of milk to water in container 1 = 3 : 7

The ratio of milk to water in container 2 = 7 : 5

Formula:

The ratio of milk to water can be calculated by dividing the quantity of milk by the quantity of water.

Solution:

Container 1:

Total parts = 3 + 7 = 10 parts

Quantity of milk in container 1 = $(\frac{3}{10}) \times 20$ liters = 6 liters

Quantity of water in container 1 = $(\frac{7}{10}) \times 20$ liters = 14 liters

Container 2:

Total parts = 7 + 5 = 12 parts

Quantity of milk in container 2 = $(\frac{7}{12}) \times 36$ liters = 21 liters

Quantity of water in container 2 = $(\frac{5}{12}) \times 36$ liters = 15 liters

Total quantity of milk = 6 liters + 21 liters = 27 liters

Total quantity of water = 14 liters + 15 liters = 29 liters

Therefore, the ratio of milk to water when the two containers are mixed together is 27 : 29.

54. Answer: d

Explanation:

Given:

Number to be squared: 28

We need to find the largest number that can exactly divide both 42 and 56.

Formula:

To find the largest number that can exactly divide two given numbers, we need to find their greatest common divisor (GCD).

Solution:

First, let's find the GCD of 42 and 56.

Factors of 42: 1, 2, 3, 6, 7, 14, 21, 42

Factors of 56: 1, 2, 4, 7, 8, 14, 28, 56

Common factors of 42 and 56 are = 1, 2, 7, and 14.

The GCD is 14.

Now, let's calculate the result by dividing the square of 28 by 14.

$$\text{Result} = (28^2)/14$$

$$\text{Result} = 784/14$$

$$\text{Result} = 56$$

Therefore, the result is 56.

55. Answer: d

Explanation:

Given:

Marked price of the table = Rs. 300

Successive discounts: 20% and 10%

Additional discount on cash payment: 5%

Calculation:

According to the question:

$$300 \times 80/100 \times 90/100 \times 95/100 = 205.20$$

Therefore, the cash price for the table is Rs. 205.20.

56. Answer: c

Explanation:

Given:

The initial price of petrol = Rs. 92 per litre

New price of petrol = Rs. 96.5 per litre

Formula:

$$\text{Percentage increase} = ((\text{New value} - \text{Initial value}) / \text{Initial value}) \times 100$$

Solution:

$$\text{Percentage increase} = ((96.5 - 92) / 92) \times 100$$

$$(4.5/92) \times 100 = 4.9\%$$

Therefore, the percentage increase in the price of petrol is 4.9%.

57. Answer: c

Explanation:

Given:

24 and 36 are the first and middle proportions respectively.

Concept used:

If $A : B :: C : D$ then, $(A \times D) = (B \times C)$

Calculation:

Let the third proportion be P.

So, the proportion becomes

$$\Rightarrow 24 : 36 :: 36 : P$$

According to the concept,

$$24 \times P = 36 \times 36$$

$$\Rightarrow P = 1296/24$$

$$\Rightarrow P = 54$$

\therefore The third proportion is 54.

58. Answer: b

Explanation:

Given:

A discount of 20%, there is still a gain of 10%.

Formula used:

$$MP/CP = (100 + \text{profit\%}) / (100 - \text{discount\%})$$

Calculation:

$$MP/CP = (100 + \text{profit\%}) / (100 - \text{discount\%})$$

$$MP/CP = (110) / (80)$$

$$MP/CP = (11) / (8)$$

According to the question:

$$11 - 8 = 3$$

$$3/8 \times 100 = 37.5\%$$

∴ Option 2 is the correct answer.

59. Answer: b

Explanation:

Given: Your Personal Exams Guide

Marked price of the sweatshirt = Rs. 2999

Discount percentage = 40%

Formula:

Amount to be paid after discount = Marked price - (Discount percentage × Marked price) / 100

Solution:

Substituting the given values into the formula:

$$2999 - (40/100) \times 2999$$

$$2999 - (0.4) \times 2999$$

$$2999 - 1199.6$$

Rs. 1799.40

Therefore, Harshi paid Rs. 1799.40 after applying the 40% discount on the marked price.

60. Answer: b

Explanation:

Given:

SP of each chair = Rs. 475

On one chair profit% = 25%

On other chair loss = 20%

New SP of each chair = Rs. 575

Concept Used:

$$CP = SP \times 100 / (100 \pm \text{Profit\%/Loss\%})$$

$$\text{Profit\%} = \text{Profit} / CP \times 100$$

$$\text{Profit} = SP - CP$$

Calculation:

$$CP_1 = 475 \times 100 / 125$$

$$475 \times 4/5 = \text{Rs. } 380$$

$$CP_2 = 475 \times 100 / 80 = \text{Rs. } 593.75$$

$$\text{Total CP} = 380 + 593.75 = \text{Rs. } 973.75$$

Total new SP = $575 + 575 = \text{Rs. } 1150$

Profit = $1150 - 973.75 = \text{Rs. } 176.25$

Profit% = $176.25/973.75 \times 100 = 18\%$

∴ Option 2 is the correct answer.

61. Answer: a

Explanation:

The correct answer is 'Option 1' i.e. 'Prefer'.

★ Key Points

- The word "**prefer**" means to like (one thing or person) better than another or others; tend to choose.
- **In this context**, the sentence is indicating a preference for one mode of transportation over another, so "prefer" is the most appropriate choice.

Therefore, the **correct sentence** is: *We would prefer to travel by train rather than bus due to the poor road conditions in the village.*

★ Additional Information

- Here's why the other options are incorrect:
 - "**Assure**" - This verb means to tell someone something positively or confidently to dispel any doubts they may have, which does not fit the context of the sentence.
 - "**Make it**" - This phrase can mean to succeed in a specific area, to arrive somewhere, or to manage to do something, but it doesn't express a choice or preference, which is what the sentence requires.
 - "**Drop**" - This verb means to let something fall or to stop doing something, neither of which fits the context of the sentence.

62. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The original sentence "The participants are rehearse their roles." is **incorrect** because it **improperly combines** the helping verb "are" with the base form of the verb "rehearse."
- The helping verb "**are**" should be **followed by** the present participle form of the verb, which in this case is "**rehearsing**."

Therefore, the **correct sentence** is: "*The participants are rehearsing their roles.*"

★ Additional Information

- Here's why the other options are incorrect:
 - "**Are rehearsed**" - This option changes the verb to a passive form, which is not the intended meaning of the original sentence.
 - "**Has been rehearsing**" - This would be grammatically correct in a different context, but it doesn't match the plural subject "participants." The correct form for a plural subject would be "have been rehearsing."
 - "**Have rehearse**" - This is incorrect because "have" should be followed by a past participle, which in this case would be "rehearsed." However, the present progressive tense "are rehearsing" is more appropriate for the sentence.

63. Answer: d

Explanation:

The correct answer is 'Option 4' i.e. "Aberration".

★ Key Points

- The word "**aberration**" is **spelled correctly** in the fourth option.
- "**Aberration**" is a noun that typically refers to a departure from what is normal, usual, or expected, typically an unwelcome one. (विचलन)
- In English, **it is often used to** refer to something that is not typical or usual, like a sudden action or event that is very different from what usually happens.

Therefore, the **correct answer** is: '**Aberration**'.

64. **Answer: b**

Explanation:

The correct answer is '**Option 2**' i.e. '**Unconcerned**'.

★ Key Points

- The word "**Anxious**" is an adjective that describes a feeling of worry, nervousness, or unease about something with an uncertain outcome. (चिंतित" or "उत्साहित".)
- '**Unconcerned**' - This word describes a lack of worry or interest. (बेपरवाह)
- **It is the opposite** of "anxious" because it conveys a lack of worry or nervousness.

Therefore, the **correct answer** is: '**Unconcerned**'.

★ Additional Information

- The meanings of the other options are:
 - **Considerate** - showing careful thought, especially towards others. (विचारशील)
 - **Stealthy** - behaving or done in a cautious and surreptitious manner, so as not to be seen or heard. (चोरी छिपे)
 - **Haughty** - arrogantly superior and disdainful. (अहंकारी)

65. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The correct spelling for the sentence is: *My grandfather planted cauliflower in the garden.*
- The word "cauliflower" is a type of vegetable that is spelt as C-A-U-L-I-F-L-O-W-E-R.
- The **sentence means** that the speaker's grandfather planted cauliflower plants in his garden.

Therefore, the **correct answer** is: '*My grandfather planted cauliflower in the garden.*'

66. Answer: c

Explanation:

The correct answer is 'Option 3' i.e. 'Refreshen'.

★ Key Points

- The word '**rejuvenate**' means to make someone or something look or feel younger, fresher, or more lively. (नवजीवन देना)
- **In this context**, the word is used to suggest that music can bring about a sense of renewed energy or vitality in everyone and everything.
- "**Refreshen**" is a synonym for 'rejuvenate', as it also means to make fresh or revitalized again.

Therefore, the **correct answer** is: 'Refreshen'.

★ Additional Information

'Modify' means to make changes to something. (संशोधित करना)

'Prosper' means to be successful or flourish (समृद्ध होना)

'Fortify' means to strengthen something, particularly in a defensive way, (मजबूत करना)

67. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The phrase "**after one's own heart**" is used to describe someone who thinks the same way you do, or has the same tastes or opinions as you.
- **It's a way of** expressing approval for someone because they remind you of yourself or your values.
 - **Example**– He looked like a man after my own heart.

Therefore, the **correct answer** is: '*Having likes and dislikes similar to one's own*'.

68. Answer: c

Explanation:

The correct answer is 'Option 3'.

★ Key Points

- The error in the sentence is in the usage of "**have being**".
- The correct form should be "**have been**".
- The verb "**have been**" is used as the present perfect continuous form and it's used to express an action that started in the past and is still happening now or has recently finished.

So, the **correct sentence** should be: *"Our soldiers have been making a clean sweep of the sheep and poultry on the route."*

69. **Answer: c**

Explanation:

The correct answer is '**Option 3**' i.e. '**Reasonable**'.

★ Key Points

- The word '**absurd**' in English means something that is wildly unreasonable, illogical, or inappropriate. (बेतुका)
- The **antonym of 'absurd'** would be something that is logical, appropriate, or reasonable.
- '**Reasonable**' means being in accordance with reason or logic, which is the exact opposite of 'absurd'. (तर्कसंगत)

Therefore, the **correct answer** is: '**Reasonable**'.

★ Additional Information

- Let's look at the other options:
 - '**Facetious**' means treating serious issues with deliberately inappropriate humor; flippant. (हंसमुख)
 - '**Fundamental**' means forming a necessary base or core; of central importance. (मौलिक)
 - '**Amazing**' means causing great surprise or wonder; astonishing. (आश्चर्यजनक)

70. **Answer: a**

Explanation:

The correct answer is '**Option 1**' i.e. '**Holy**'.

★ Key Points

- The word '**holy**' means dedicated or consecrated to God or a religious purpose; sacred. ('पवित्र')
- **In the context** of the sentence, 'holy men' refers to individuals such as priests, monks, or other religious figures who are often associated with respect.

Therefore, the **correct sentence** is: '*Holy men command respect.*'

★ Additional Information

- Let's look at the other options:
 - '**Holey**' is not a word in standard English and thus, it is not correct.
 - '**Holly**' is a type of plant with glossy green leaves and typically red berries. It has no relation to the context of the sentence and is not correct.
 - '**Wholly**' means entirely or fully. In the context of this sentence, 'wholly men' wouldn't make sense, as 'wholly' is an adverb and can't be used to describe 'men' in this way. It is not correct.

71. **Answer: d**

Explanation:

The correct answer is 'Option 4' i.e. 'Lavish'.

★ Key Points

- '**Sumptuous**' means splendid and expensive-looking, and it often refers to meals, accommodations, or decorations that are very luxurious. (आलीशान)
- The word '**lavish**' is a synonym for '**sumptuous**' as it also means rich, elaborate, or luxurious. (शानदार)

Therefore, the **correct answer** is: '**Lavish**'.

★ Additional Information

- Let's look at the other options:

- 'Mammoth' refers to something that is enormous in size. (विशाल)
- 'Humble' means modest or lowly. (विनम्र)
- 'Minuscule' means very small, (अत्यल्प)

72. Answer: a

Explanation:

The correct answer is 'Option 1'.

★ Key Points

- The phrase '**take stock of**' means to assess or review a particular situation, often before making a decision. (मूल्यांकन करना)
- It can be used to replace the phrase '**surveys the whole situation**' in the given sentence without changing its meaning.

Therefore, the **correct sentence** is: '*Once in a year, the management of the institute take stock of the whole situation.*'

★ Additional Information

- Now let's look at the other options:
 - '**Perplexed with**' means to be puzzled or confused with something. (भ्रमित होना)
 - '**Makes a mark**' means to have a significant effect or influence. (प्रभाव डालना)
 - '**Comes to the front**' means to become prominent or important (सामने आना)

73. Answer: c

Explanation:

The correct answer is 'beet; beat'.

★ Key Points

- The sentence has two blanks that require words of similar pronunciation but different meanings and spelling – these are known as homophones. Let's consider each pair separately:
 - The first word needs to fit in the context of "My cousin likes _____ root". It's clear that this must be a type of root that is potentially edible, so we're referring to a plant root, specifically "beetroot." Therefore, "beet" fits the context better than "beat."
 - The second blank needs to fit in an English idiom: "_____ around the bush." The correct idiom is "beat around the bush", which is used to describe someone who's avoiding the main topic or speaking evasively. Here, "beat" is the appropriate word, not "beet."
- Therefore, the correct pair of words for the blanks in this sentence is: beet; beat
 - **Complete Sentence:** "My cousin likes beet root and beat around the bush is one of the idioms in English."

Hence, the correct answer is "Option 3".

74. Answer: a

Explanation:

The correct answer is 'Option 1' i.e. 'Guilt'.

★ Key Points

- The **correct homonym** to fill in the blank is: 'guilt'.
- The word "guilt" refers to the feeling of having done something wrong or having violated a rule, ethical code, or law.
- It is often associated with feelings of regret and remorse. (अपराधभूति)

Therefore, the **correct sentence** is: 'He confessed about his affairs as the guilt made him sleepless.'

★ Additional Information

- The other words don't fit in the context of the sentence. Here are their meanings:
 - "Gilled" refers to something or someone having gills (breathing organs found in many aquatic organisms). (गिल्लों वाला)
 - "Gild" means to cover something with a thin layer of gold or to give an often deceptively attractive or improved appearance to something. (सोने की परत चढ़ाना)
 - "Guild" is an organization of people who do the same job or have the same interests. (महाजनसभा)

75. Answer: d

Explanation:

The correct answer is 'Option 4'.

★ Key Points

- The **most appropriate substitution** for the underlined segment in the sentence "The students were boring" is: *'The students were bored'*
- Here, the past participle form "**bored**" is required to indicate the state or feeling of the students as a result of the action (the lecture).
- The **original sentence incorrectly used** "boring", which is an adjective that would describe the students as being dull or not interesting, which isn't the intended meaning.
- The **intended meaning is that** the students felt bored (uninterested) during the lecture.

Therefore, the **correct sentence** is: *"He confessed about his affairs as the guilt made him sleepless."*

76. Answer: c

Explanation:

The correct answer is 'Option 3' i.e. 'Should'.

★ Key Points

- The **most appropriate option** to fill in blank number 1 is: '**should**'
- In this context, "**should**" is used to indicate obligation or duty, advice, or recommendation.
- The **sentence is providing** advice or recommendation that children should avoid certain types of foods.

Therefore, the **correct sentence** is: *Children especially **should** avoid such foods or try to reduce intake and instead, eat healthy food for (2)_____ growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.*

★ Additional Information

- Let's consider other options:
 - "**Might**" - This indicates a possibility or suggestion but doesn't convey the sense of strong recommendation or advice as "should" does.
 - "**Will**" - This is used to indicate future events or certainty, which isn't appropriate here as we're not talking about a certain future event.
 - "**Shall**" - This is typically used in formal or legal contexts to indicate future events, or in first person to express determination. In this context, it's not suitable as the sentence is giving a recommendation or advice, not stating a determination or future certainty.

77. **Answer: b**

Explanation:

The correct answer is 'Option 2' i.e. 'Proper'.

★ Key Points

- The most appropriate option to fill in blank number 2 is: **Proper**
- In this context, "**proper**" is used to refer to something that is correct or suitable.
- The **sentence is talking about** growth, which is a biological process.
- Hence, it makes sense to use "**proper**," as it signifies correct or healthy development.

Therefore, the **correct sentence** is: *Children especially **should** avoid such foods or try to reduce intake and instead, eat healthy food for **proper** growth. Schools can (3)_____ the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.*

★ Additional Information

- Now, let's consider other options:
 - "**Elegant**" - This adjective often refers to something refined, stylish, or pleasing in appearance. It doesn't fit well in the context of biological growth.
 - "**Interesting**" - This adjective is used to describe something that attracts attention or is fascinating. Using it to describe "growth" would be unusual and doesn't quite fit the context here.
 - "**Awkward**" - This word often refers to something uncomfortable or clumsy. It is definitely not appropriate to use it in the context of describing healthy or normal growth.

78. Answer: d

Explanation:

The correct answer is 'Option 4' i.e. 'Monitor'.

★ Key Points

- The most appropriate option to fill in blank number 3 is: '**monitor**'

- In this context, "**monitor**" means to carefully watch, keep track of, or check something over a period of time.
- Schools can be responsible for overseeing the quality of food sold in their canteens.

Therefore, the **correct sentence** is: *Children especially **should** avoid such foods or try to reduce intake and instead, eat healthy food for **proper** growth. Schools can **monitor** the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food (4)_____ home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.*

★ Additional Information

- Now, let's consider the other options:
 - "**Allow**" – This verb is used to permit or authorize. It doesn't quite fit in this context because the sentence is about schools actively managing or controlling the food quality, not just permitting something.
 - "**Show**" – This verb is used to indicate or demonstrate something. It doesn't make sense in this context because schools are not demonstrating the quality, but checking or ensuring it.
 - "**Proclaim**" – This verb means to announce something officially or publicly. It does not fit in this context because the schools are not making an announcement, they are overseeing food quality.

79. **Answer: c**

Explanation:

The correct answer is '**Option 3**' i.e. '**From**'.

★ Key Points

- The most appropriate option to fill in blank number 4 is: '**from**'
- In this context, "**from**" is the most appropriate choice because it's used to indicate the source or origin of something.

- So, the children are bringing their nutrition food from their homes.

Therefore, the **correct sentence** is: *Children especially **should** avoid such foods or try to reduce intake and instead, eat healthy food for **proper** growth. Schools can **monitor** the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food **from** home. (5)_____ should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.*

★ **Additional Information**

- Now, let's consider the other options:
 - **"Through"** - This preposition is generally used to indicate movement within or among, or continuous progression. It doesn't fit well in this context.
 - **"With"** - This preposition is used to indicate association or accompaniment. It also doesn't fit well in this context.
 - **"In"** - This preposition is generally used to indicate inclusion within space, a place, or limits. It's not correct here because the food isn't within the home; it's coming from the home.

80. **Answer: b**

Explanation:

The correct answer is 'Option 2' i.e. 'Dieticians'.

★ **Key Points**

- The most appropriate option to fill in blank number 5 is: '**Dieticians**'
- In this context, "Dieticians" is the most appropriate choice because dieticians are experts in dietetics; that is, human nutrition and the regulation of diet.
- They can advise people on what to eat in order to lead a healthy lifestyle or achieve a specific health-related goal, which fits perfectly in this context where they are needed to assess the nutritional value of food.

Therefore, the **correct sentence** is: *Children especially **should** avoid such foods or try to reduce intake and instead, eat healthy food for **proper** growth. Schools can **monitor** the quality of the food being sold in the canteens and also ensure that the children bring wholesome nutrition food **from** home. **Dieticians** should be appointed to check the calories content and food value of food served in the canteens and setting definite tiffin patterns.*

★ Additional Information

- Now, let's consider the other options:
 - "**Technicians**" - These are professionals in fields that involve complex and intricate tasks. This does not relate to assessing food value.
 - "**Paediatricians**" - These are doctors who manage the health of your child, including physical, behavior, and mental health issues. Though relevant to children, they are not specifically trained to check calories content and food value in meals.
 - "**Opticians**" - These are professionals who design and fit eyeglass lenses, frames, and contact lenses. They have nothing to do with food or nutrition, so this choice is incorrect.

Your Personal Exams Guide