

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



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC GD Constable 2021 (English) Prev. Year Paper (08-Dec-2021) (Shift 1)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence and Reasoning	25	25	0.25	1
2	General Knowledge and General Awareness	25	25	0.25	1
3	Elementary Mathematics	25	25	0.25	1
4	English	25	25	0.25	1

- 1.) A total of 90 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 a certain code language, 'match is over' is written as 'en jo hi', 'the cricket match' is written as 'lu mo en', and 'over the globe' is written as 'hi lu nok'. How will 'cricket' be written in that language? **(+1, -0.25)**

- a. mo
- b. hi
- c. nok
- d. jo

2. Select the number from among the given options that can replace the question mark (?) in the following series. **(+1, -0.25)**

24, 27, 33, 42, 54, ?

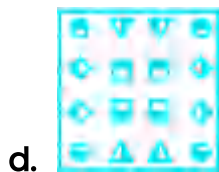
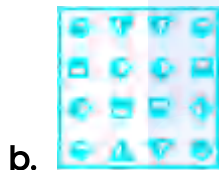
- a. 69
- b. 68
- c. 64
- d. 66

3. Rohit told Ruchi, "Your mother's father is the father-in-law of my son". How is Ruchi related to Rohit? **(+1, -0.25)**

- a. Daughter
- b. Aunt
- c. Granddaughter

d. Sister

4. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the following figures. How would this paper look when unfolded? (+1, -0.25)



5. 'Marigold' is related to 'Flower' in the same way as 'Barley' is related to '_____'. (+1, -0.25)

- a. Stems
- b. Cereals

- c. Pulses
 - d. Spices
-

6. In a certain code language, PARENTS is written as JYHULFG. How will ASTONISH be written in that language? (+1, -0.25)

- a. YGEKKQGR
 - b. YHEKLQGR
 - c. YHEKKQGS
 - d. YGFKLQGR
-

7. Select the correct option that indicates the arrangement of the given words in a logical and meaningful order. (+1, -0.25)

- i. Class
 - ii. Family
 - iii. Kingdom
 - iv. Order
 - v. Phylum
- a. iii, v, ii, iv, i
 - b. iii, v, i, iv, ii
 - c. iii, ii, iv, i, v
 - d. iii, iv, ii, v, i
-

8. Select the combination of letters that when sequentially placed in the blanks of the given series will complete the series. (+1, -0.25)

c _ _ w z c _ n _ z c j _ w _ _ j n _ z

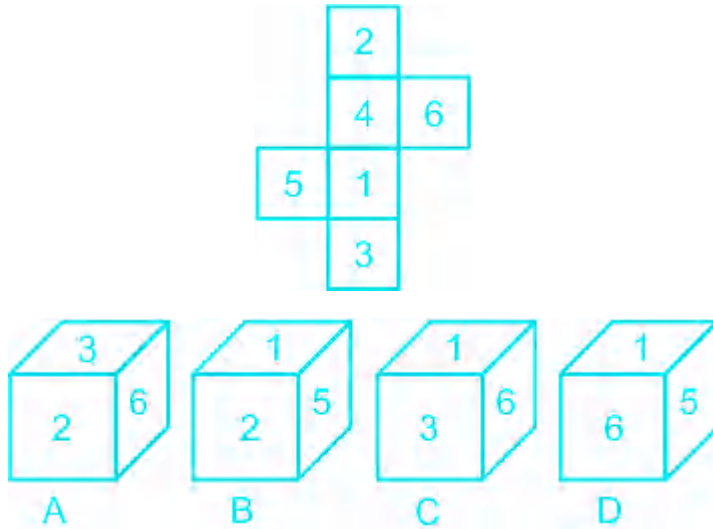
- a. j, n, j, w, n, z, c, w
- b. n, j, j, w, n, c, z, w
- c. j, n, j, w, z, n, c, w
- d. n, j, n, w, n, z, c, w

9. Study the given pattern carefully and select the number that can replace the question mark (?) in it. (+1, -0.25)

?	23	17
74	95	62
44	49	28

- a. 16
- b. 32
- c. 15
- d. 36

10. Select the dice that can be formed by folding the given sheet along the lines. (+1, -0.25)



- a. Only A and C
- b. Only A and B
- c. Only B
- d. Only D

11. Select the number from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

32, 33, 37, 46, ?, 87

- a. 77
- b. 52
- c. 62
- d. 60

12. Select the option that is related to the third letter-cluster in the same way (+1, -0.25) as the second letter-cluster is related to the first letter-cluster.

BFX : PTL :: UHE : ?

- a. IVT
- b. HVS
- c. IUS
- d. IVS

13. Ramesh has an equal number of coins of one-rupee, five-rupee and ten-rupee. He has a total of ₹640. How many total coins does he have? (+1, -0.25)

- a. 90
- b. 60
- c. 120
- d. 40

14. If 'A' denotes 'addition', 'B' denotes 'subtraction', and the signs 'x' and '÷' are interchanged, then what will be the value of the following expression? (+1, -0.25)

$$12 \div (81 B 18) \times 9 B 34 A 12 \times 6$$

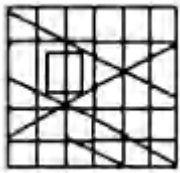
- a. 52
- b. 58
- c. 76
- d. 54

15. Seven friends, A, B, C, D, E, F and G, are sitting in a row facing north. B is not sitting in the middle of the row. A is sitting second to the right of B. D is sitting second to the left of F. G is sitting to the immediate left of F. C is sitting second to the right of G. E is sitting between B and A. Who is sitting in the middle of the row? (+1, -0.25)
- a. F
 - b. D
 - c. G
 - d. E

16. Select the option in which the given figure is embedded (rotation is NOT allowed). (+1, -0.25)

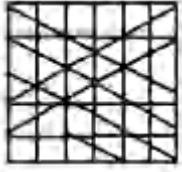


Your Personal Exams Guide

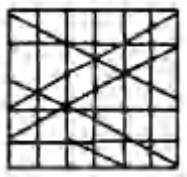
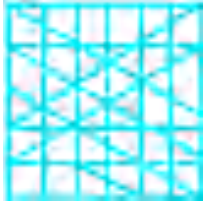


a.

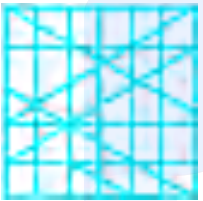




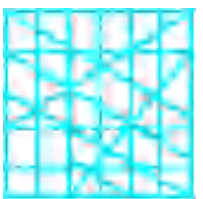
b.



c.



d.



17. Five friends P, Q, R, S and T are travelling in a bus. All are sitting in five different rows one after the other, facing the same direction. P is sitting just ahead of S. T is after Q. Equal number of persons are sitting before and after R. T is before R. Who is sitting at the end?

(+1, -0.25)

a. Q

- b. T
 - c. S
 - d. P
-

18. Select the option that is related to the third number in the same way as the second number is related to the first number. (+1, -0.25)

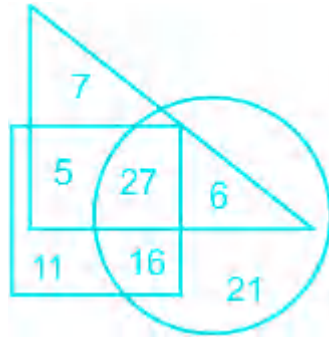
12 : 67 :: 16 : ?

- a. 80
 - b. 72
 - c. 70
 - d. 91
-

19. In a code language, FLEW is coded as 1212546. How will RODE be coded in that language? (+1, -0.25)

- a. 3612411
 - b. 3615410
 - c. 341319
 - d. 3615210
-

20. In the following diagram, the circle stands for 'policemen', the square stands for 'sportspersons' and the 'triangle' stands for 'tax-payers' the numbers given in the different segments represent the number of persons in that category. (+1, -0.25)



How many policemen are tax-payers but are NOT sportspersons?

- a. 22
- b. 33
- c. 6
- d. 27

21. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

All vegetables are foods.

Some foods are drinks.

Conclusions:

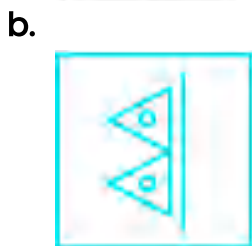
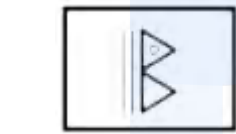
I. Some drinks are foods.

II. Some vegetables are drinks.

- a. None of the conclusions follow
- b. Both the conclusions follow

- c. Only conclusion II follows
- d. Only conclusion I follows

22. Select the figure from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)





c.



d.



23. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the letter-cluster that is different. (+1, -0.25)

a. ZBFL

b. OQUB

c. MOSY

d. BDHN

24. Select the correct mirror image of the given combination when the mirror is placed at PQ as shown. (+1, -0.25)

ADHWARIO | P
Q

ADHWARIO | P
Q

a. OIRAWHDA

b. ADRWHDA

c. ADHWARIO

d. ADHWARIO

a. ADHWARIO

b. ADHWARIO

c. ADHWARIO

d. ADHWARIO

25. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

GRTD, KNXZ, OJBV, SFFR, ?

a. VBKN

- b. WBKO
- c. WBJN
- d. WAJO

prepp

Your Personal Exams Guide

General Knowledge and General Awareness

26. Which of the following incidents occurred before the partition of Bengal in 1905? (+1, -0.25)
- a. Jallianwala Bagh Massacre
 - b. Assassination of plague commissioner by Chapekar brothers
 - c. Kakori Conspiracy
 - d. Chauri Chaura Incident
-
27. Which Article of the Constitution of India empowers the Supreme Court to issue writs? (+1, -0.25)
- a. Article 41
 - b. Article 49
 - c. Article 32
 - d. Article 53
-
28. The slogan, "Freedom is my birth right and I shall have it", was raised by: (+1, -0.25)
- a. Lala Lajpat Rai
 - b. Mahatma Gandhi
 - c. Bal Gangadhar Tilak
 - d. Bipin Chandra Pal
-

29. Who among the following has NEVER played professional cricket for India? (+1, -0.25)
- a. Sourav Ganguli
 - b. Vijendra Singh
 - c. Virender Sehwag
 - d. Harbhajan Singh
-

30. The Zabo system of rice cultivation is an indigenous method of water harvesting practiced in which of the following states of India? (+1, -0.25)
- a. Kerala
 - b. Uttar Pradesh
 - c. Nagaland
 - d. Karnataka
-

31. To which of the following states does the folk dance form 'Grida' belong? (+1, -0.25)
- a. Jharkhand
 - b. Madhya Pradesh
 - c. West Bengal
 - d. Chhattisgarh
-

32. In which year did Mahesh Bhupathi and Leander Paes win the Wimbledon Men's Doubles Title? (+1, -0.25)

- a. 1997
- b. 1995
- c. 1999
- d. 1998

33. What was the Repo Rate in October 2020? (+1, -0.25)

- a. 4.5%
- b. 5%
- c. 3.5%
- d. 4%

34. In which state was the 'Portable Transit Hospital Structure' inaugurated in November 2020 by the Union Health Minister Dr Harsh Vardhan? (+1, -0.25)

- a. Tamil Nadu
- b. Maharashtra
- c. Andhra Pradesh
- d. Karnataka

35. Burhi dihing is a tributary of which of the following rivers? (+1, -0.25)

- a. Brahmaputra
 - b. Ganges
 - c. Yamuna
 - d. Godavari
-

36. Which of the following literary works was created by Sandhyakar Nandi? (+1, -0.25)

- a. Buddhacharita
 - b. Ramacharitam/Rampalcharit
 - c. Arthashastra
 - d. Gita Govinda
-

37. What is the chemical formula of muriatic acid? (+1, -0.25)

- a. AsH_3
 - b. HCL
 - c. HNO_3
 - d. H_2SO_4
-

38. Which of the following books is written by Megasthenes? (+1, -0.25)

- a. Arthashastra
- b. Periplus of the Erythraean Sea

- c. Natural History
 - d. Indica
-

39. The value of which of the following work is NOT recognised in the national income? (+1, -0.25)

- a. Housewife's work
 - b. Working in a firm
 - c. Construction of a new house
 - d. Selling fish in the market
-

40. Who among the following was the President of Delhi District Cricket Association as of November 2020? (+1, -0.25)

- a. AK Singh
 - b. Rohan Jaitely
 - c. Rajiv Jalota
 - d. Nilesh Shah
-

41. Which of the following is NOT known as a greenhouse gas? (+1, -0.25)

- a. Oxygen
- b. Water vapour
- c. Carbon dioxide

d. Methane

42. _____ states that temperature and other physical conditions remaining the same, the current through a conductor between two points is directly proportional to the voltage across the two points. (+1, -0.25)

- a. Pascal's law
 - b. Hooke's law
 - c. Newton's law
 - d. Ohm's law
-

43. In September 2021, a team of researchers at the Indian Institute of Science (IISc) and the Indian Space Research Organisation (ISRO) developed a device that could enable _____ (+1, -0.25)

- a. scientists to carry out biological experiments in space
 - b. astronauts to wash clothes in space
 - c. scientists to launch satellites from space
 - d. astronauts to heat food in space
-

44. Who had the charge of education portfolio in the first cabinet of free India in 1947? (+1, -0.25)

- a. Dr BR Ambedkar
- b. Liaquat Ali Khan
- c. Dr Rajendra Prasad

d. Maulana Abul Kalam Azad

45. The festival of Dussehra is also known as _____. (+1, -0.25)

- a. Dhanteras
 - b. Navratri
 - c. Vijayadashami
 - d. Durgashtami
-

46. When more than the required number of people are engaged in a job, it is known as: (+1, -0.25)

- a. seasonal unemployment
 - b. total unemployment
 - c. partial unemployment
 - d. disguised unemployment
-

47. Tulsidas's composition, the Ramcharitmanas, was written in _____ language. (+1, -0.25)

- a. Sanskrit
 - b. Urdu
 - c. Awadhi
 - d. Assamese
-

48. Who among the following wrote the novel 'The Last Queen of Kashmir'? (+1, -0.25)
- a. Rakesh Kaul
 - b. Chitra Banerjee Divakaruni
 - c. Chetan Bhagat
 - d. Sudha Murthy
-

49. Nitish Kumar, who took an oath as the Chief Minister of Bihar on 16 November 2020, belongs to which of the following parties? (+1, -0.25)
- a. Indian National Congress
 - b. Bharatiya Janata Party
 - c. Janata Dal United
 - d. Rashtriya Janata Dal
-

50. The river Mandakini joins the river Alaknanda at _____. (+1, -0.25)
- a. Vishnuprayag
 - b. Rudraprayag
 - c. Karnaprayag
 - d. Devprayag

Elementary Mathematics

51. With the grant of annual increment, salary of Neera increased from ₹45000 to ₹48150. Find the increase percent (+1, -0.25)
- a. 6.75%
- b. 7%
- c. 7.5%
- d. 6.25%
-

52. Find the value of $[78 - \{5 + 3 \text{ of } (25 - 2 \times 10)\}] \div 29$. (+1, -0.25)
- a. 4
- b. 2
- c. 8
- d. 58
-

53. Eight years ago, the average age of a family of 4 persons was 19 years. A baby girl is a new addition to the family and now the average age of the family is 4 years more than it was 8 years ago. How old is baby girl? (+1, -0.25)
- a. 6 years
- b. 7 years
- c. 3 years
- d. 5 years
-

54. A wheel makes 1000 revolutions in covering a distance of 44 km. Find the radius of the wheel. (+1, -0.25)
- a. 7 m
 - b. 14 m
 - c. 6 m
 - d. 22 m
-

55. A sum of ₹x amounts to ₹10,483 after 3 years and to ₹12,727 after 7 years at the same rate percent per annum simple interest. The value of x is : (+1, -0.25)
- a. ₹5,000
 - b. ₹8,800
 - c. ₹6,600
 - d. ₹7,500
-

56. Arti and Rita can do a job in 8 hours (working together at their respective constant rates) and Arti can do the job alone in 10 hours. In how many hours can Rita do the job alone? (+1, -0.25)
- a. 40
 - b. 20
 - c. 15
 - d. 10
-

57. What is the single discount equivalent to three successive discounts 10%, 15% and 20%? (+1, -0.25)
- a. 45%
 - b. 39.8%
 - c. 38.8%
 - d. 61.2%
-

58. A and B can do a work in 30 and 40 days respectively. They began the work together. A left the work after some days and B finished the remaining work in 5 days. After how many days did A leave? (+1, -0.25)
- a. 15
 - b. 20
 - c. 12
 - d. 16
-

59. The ratio of two numbers is 3 : 8. On adding 8 to both the numbers, the ratio becomes 2 : 5 . What is the sum of the numbers? (+1, -0.25)
- a. 288
 - b. 264
 - c. 240
 - d. 120
-

60. I walk at a speed of 10 km/h and cover a distance in 2 hours. If I increase my speed by 5 km/h, how early would I reach my destination? (+1, -0.25)
- a. 20 min
 - b. 10 min
 - c. 40 min
 - d. 50 min

61. Rakhi offers a discount of 30% on all the items at her shop and still makes a profit of 12%. What is the cost price (in ₹) of an article marked at ₹280? (+1, -0.25)
- a. 275
 - b. 185
 - c. 170
 - d. 175

Your Personal Exams Guide

62. A man bought some toys at the rate of 12 for ₹48 and sold them at the rate of 8 for ₹48. Find his gain or loss percentage. (+1, -0.25)
- a. 5.0%
 - b. 50%
 - c. 0.50%
 - d. 2.5%

63. A box contains 50p and 25p coins in the ratio 9 : 5, amounting to ₹207. (+1, -0.25)
Find the number of 50p coins.

- a. 180
- b. 324
- c. 226
- d. 150

64. A man sold two TV sets for ₹7,200 each for neither gain nor loss. If he sold (+1, -0.25)
one TV set at a loss of 10%, then the other TV set is sold at a profit of :

- a. $17\frac{1}{2}\%$
- b. $12\frac{1}{2}\%$
- c. $15\frac{1}{2}\%$
- d. $8\frac{1}{2}\%$

Your Personal Exams Guide

65. A man sold three-fifth of his articles at a gain of 16% and the remaining at (+1, -0.25)
the cost price. Find the gain earned by him in the whole transaction

- a. $9\frac{3}{5}\%$ gain
- b. $12\frac{1}{5}\%$ loss
- c. $7\frac{3}{4}\%$ gain
- d. $11\frac{1}{2}\%$ loss

66. If $(x - 3)$ is the HCF of $x^2 - 5x + 6$ and $x^2 + mx + 12$, then what is the value of m ? (+1, -0.25)
- a. 2
 - b. -2
 - c. -1
 - d. -7
-

67. What is the average of the prime numbers between 20 and 50? (+1, -0.25)
- a. 35.857
 - b. 35.917
 - c. 35.234
 - d. 35.123
-

68. In a restaurant, 40% customers had a non-vegetarian lunch, 52% had a vegetarian lunch, and 20% had both types of lunches. If 125 customers were present, how many did NOT eat either type of lunch? (+1, -0.25)
- a. 30
 - b. 25
 - c. 35
 - d. 27
-

69. Three numbers are in the ratio 2 : 3 : 5 and the sum of their cubes is 34560. What is the second number? (+1, -0.25)

- a. 12
- b. 30
- c. 18
- d. 6

70. The perimeter of a rhombus is 148 cm and one of its diagonals is 70 cm. The area (in cm^2) of the rhombus is: (+1, -0.25)

- a. 1680
- b. 410
- c. 840
- d. 750

prepp

Your Personal Exams Guide

71. The value of $(\frac{1}{2}) [\{-2(12 + 2)\}10]$ is: (+1, -0.25)

- a. -140
- b. -160
- c. -100
- d. -35

72. Ramu had borrowed ₹20,000 from a bank at simple interest, and after 5 years he repaid an amount of ₹25,000 to the bank. What was the rate of interest per year? (+1, -0.25)

- a. 6%
 - b. 8%
 - c. 7%
 - d. 5%
-

73. In how much time will ₹6,25,000 become ₹8,31,875 at 10% per annum, compounded annually? (+1, -0.25)

- a. 2 years
 - b. 4 years
 - c. 3 years
 - d. 6 years
-

74. What is the number which when divided by 39, 52 and 60 leaves the remainders 30, 43 and 51, respectively? (+1, -0.25)

- a. 790
 - b. 780
 - c. 771
 - d. 781
-

75. A man travelled a distance of 54 km in 4 hours, partly on foot at 6 km/h and partly on bicycle at 18 km/h. Find the distance (in km) travelled on foot. (+1, -0.25)
- a. 8
 - b. 18
 - c. 9
 - d. 12

prepp

Your Personal Exams Guide

English

76. Select the INCORRECTLY spelt word.

(+1, -0.25)

- a. Medallion
- b. Meddle
- c. Mechanical
- d. Mediate

77. Select the option that can be used as a one-word substitute for the given group of words.

(+1, -0.25)

Written law passed by a law-making body

- a. Statute
- b. Rule
- c. Summit
- d. Ordeal

78. Select the most appropriate option to fill in the blank.

(+1, -0.25)

He asked me _____ I knew you.

- a. unless
- b. although
- c. since
- d. whether

79. Select the most appropriate option to fill in the blank. (+1, -0.25)

This case is limited to state _____.

- a. preparation
- b. jurisdiction
- c. radicalisation
- d. ramification

80. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. (+1, -0.25)

Divya have little chance / of winning / the gold medal / this year.

- a. the gold medal
- b. Divya have little chance
- c. of winning
- d. this year

81. Select the most appropriate ANTONYM of the given word. (+1, -0.25)

Assert

- a. Insist
- b. Request
- c. Abandon

d. Urge

82. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

The sun had set by the time we reached the hilltop.

- a. we had reached
 - b. we reach
 - c. we were reaching
 - d. No improvement required
-

83. Select the most appropriate meaning of the given idiom. (+1, -0.25)

Hang up one's boots

- a. Challenge someone
 - b. Tease an opponent
 - c. Retire from a sport
 - d. Show disrespect
-

84. Select the most appropriate option to fill in the blank. (+1, -0.25)

He was _____ from Turkey for his public condemnation of the Shah.

- a. exiled
- b. evacuated

- c. excluded
 - d. escaped
-

85. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. (+1, -0.25)

If you want to / win the race, / you need to / believe in you.

- a. win the race
 - b. If you want to
 - c. you need to
 - d. believe in you
-

86. Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'. (+1, -0.25)

General speaking, the great discoverers were people with great courage.

- a. Generally speak
 - b. No substitution required
 - c. Generally spoken
 - d. Generally speaking
-

87. Select the most appropriate meaning of the given idiom. (+1, -0.25)

Out of the blue

- a. Completely unexpected
 - b. Always dressing up in blue clothes
 - c. Caught in a fight
 - d. Coming out of a blue box
-

88. Select the most appropriate synonym of the given word. (+1, -0.25)

Investigate

- a. Examine
 - b. Relate
 - c. Calculate
 - d. Supervise
-

89. Select the option that can be used as a one-word substitute for the given group of words. (+1, -0.25)

Study of insects

- a. Ornithology
 - b. Entomology
 - c. Geology
 - d. Terminology
-

90. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. (+1, -0.25)

The manager told / the staff to complete / all the works / before going home.

- a. all the works
- b. The manager told
- c. before going home
- d. the staff to complete

-
91. Select the INCORRECTLY spelt word. (+1, -0.25)

- a. Alliteration
- b. Procastination
- c. Hallucination
- d. Superintendent

-
92. Select the most appropriate ANTONYM of the given word. (+1, -0.25)

Demolish

- a. Divide
- b. Construct
- c. Diminish
- d. Destroy

93. Select the most appropriate synonym of the given word. (+1, -0.25)

Obvious

- a. Thick
 - b. Dull
 - c. Vague
 - d. Clear
-

94. Select the option that can be used as a one-word substitute for the given group of words. (+1, -0.25)

A person who tends to be hopeful and confident about the future or the success of something

- a. Fanatic
 - b. Pessimist
 - c. Opportunist
 - d. Optimist
-

95. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'. (+1, -0.25)

Your brother can't drive, is it?

- a. couldn't he
- b. will he

- c. No improvement required
- d. can he

96. In the following passage, some words have been deleted. Fill in the blanks with the help of the options given. Select the most appropriate option for each number. (+1, -0.25)

You will be quite surprised to know that the first telescope was made in the seventeenth century (1) _____ Galileo. It was fitted on top of the (2) _____ hill of Venice. Large crowds daily (3) _____ up the hill to see through (4) _____ telescope. They looked at the planets and (5) _____ at what they saw.

Select the most appropriate option to fill in blank no.1.

- a. through
- b. with
- c. at
- d. by

97. In the following passage, some words have been deleted. Fill in the blanks with the help of the options given. Select the most appropriate option for each number. (+1, -0.25)

You will be quite surprised to know that the first telescope was made in the seventeenth century (1) _____ Galileo. It was fitted on top of the (2) _____ hill of Venice. Large crowds daily (3) _____ up the hill to see through (4) _____ telescope. They looked at the planets and (5) _____ at what they saw.

Select the most appropriate option to fill in blank no.2.

- a. higher
- b. most high
- c. highest
- d. high

98. In the following passage, some words have been deleted. Fill in the blanks with the help of the options given. Select the most appropriate option for each number. (+1, -0.25)

You will be quite surprised to know that the first telescope was made in the seventeenth century (1)_____ Galileo. It was fitted on top of the (2)_____ hill of Venice. Large crowds daily (3)_____ up the hill to see through (4)_____ telescope. They looked at the planets and (5)_____ at what they saw.

Select the most appropriate option to fill in blank no.3.

- a. climbed
- b. paused
- c. backed
- d. watched

99. In the following passage, some words have been deleted. Fill in the blanks with the help of the options given. Select the most appropriate option for each number. (+1, -0.25)

You will be quite surprised to know that the first telescope was made in the seventeenth century (1)_____ Galileo. It was fitted on top of the (2)_____ hill of Venice. Large crowds daily (3)_____ up the hill to

see through (4)_____ telescope. They looked at the planets and (5)_____ at what they saw.

Select the most appropriate option to fill in blank no.4.

- a. the
- b. a
- c. one
- d. an

100. In the following passage, some words have been deleted. Fill in the blanks with the help of the options given. Select the most appropriate option for each number. (+1, -0.25)

You will be quite surprised to know that the first telescope was made in the seventeenth century (1)_____ Galileo. It was fitted on top of the (2)_____ hill of Venice. Large crowds daily (3)_____ up the hill to see through (4)_____ telescope. They looked at the planets and (5)_____ at what they saw.

Select the most appropriate option to fill in blank no.5.

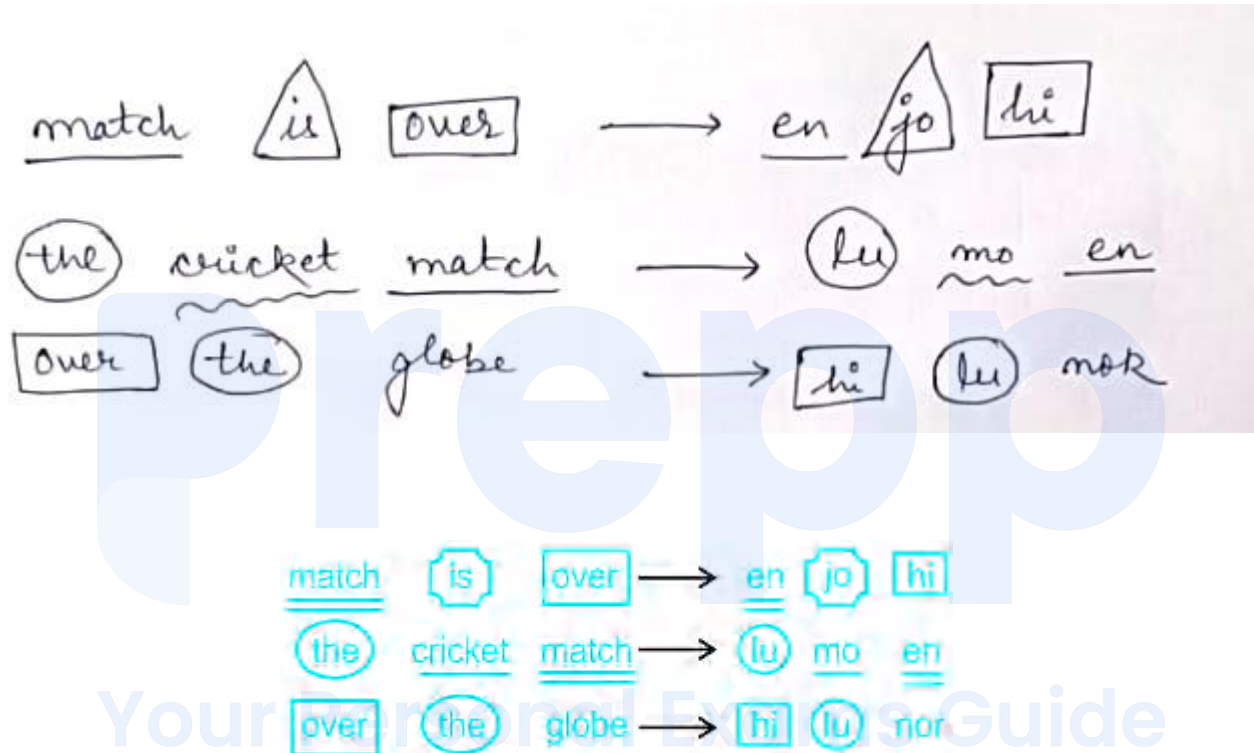
- a. stunned
- b. wondered
- c. surprised
- d. shocked

Answers

1. Answer: a

Explanation:

The code for each word is shown below:



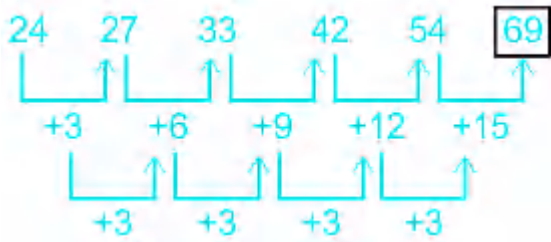
Clearly, 'cricket' be written as 'mo' in that language.

Hence, 'mo' is the correct answer.

2. Answer: a

Explanation:

The logic followed here is:



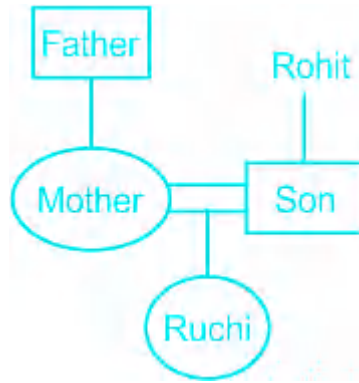
Hence, ' 69 ' is the correct answer.

3. Answer: c

Explanation:

By using the symbols in the table given below, we can draw the following family tree:

Symbol in Diagram	Meaning
○	Female
□	Male
══	Married Couple
—	Siblings
	Difference of a Generation



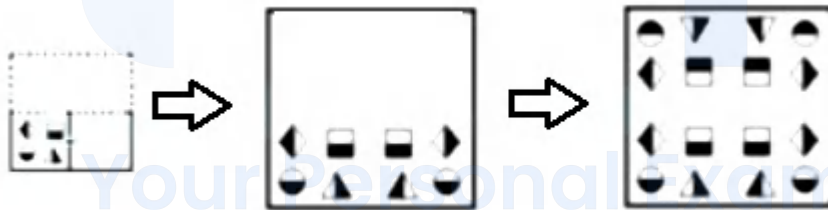
Clearly, Ruchi is the granddaughter of Rohit.

Hence, 'Granddaughter' is the correct answer.

4. Answer: d

Explanation:

The paper when unfolded will appear as shown below:



Hence, 'option 4' is the correct answer.

5. Answer: b

Explanation:

The logic followed here is:

- 'Marigold' is related to 'Flower' → **Marigold** is the name of a **flower** .

Similarly,

- 'Barley' is related to '_____ ' → **Barley** is the name of a **Cereal** .

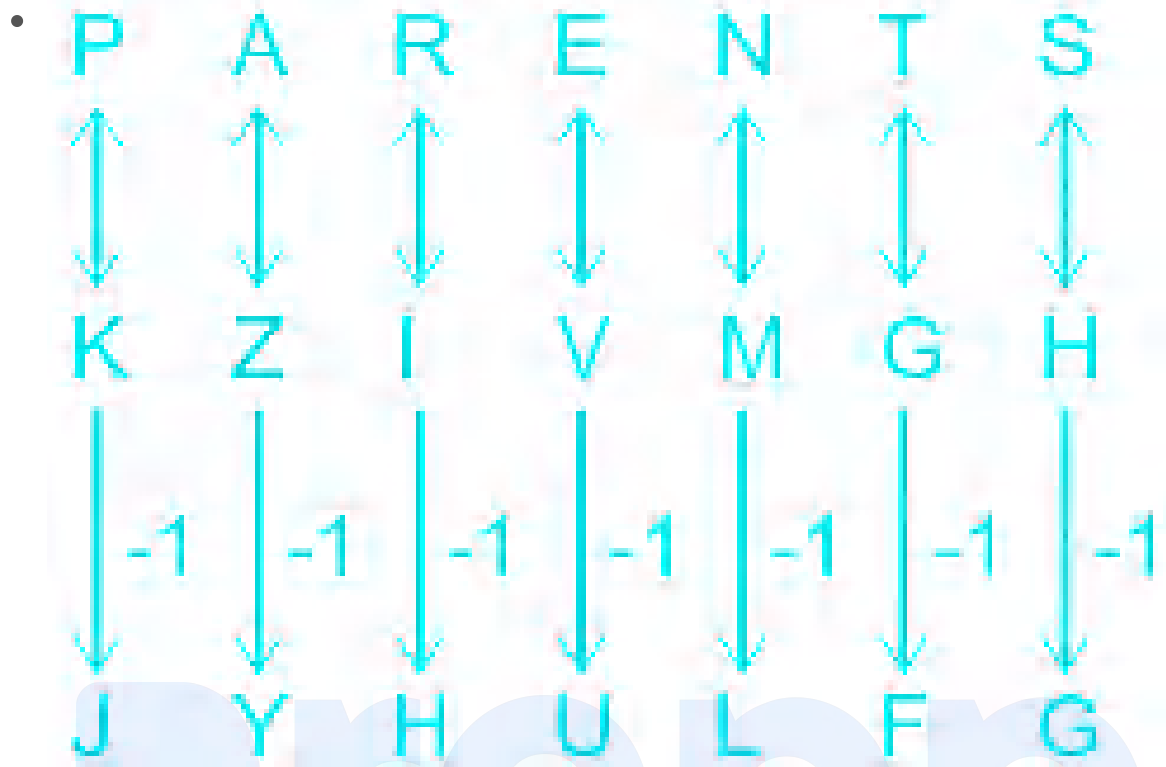
Hence, '**Cereals**' is the correct answer.

6. Answer: d

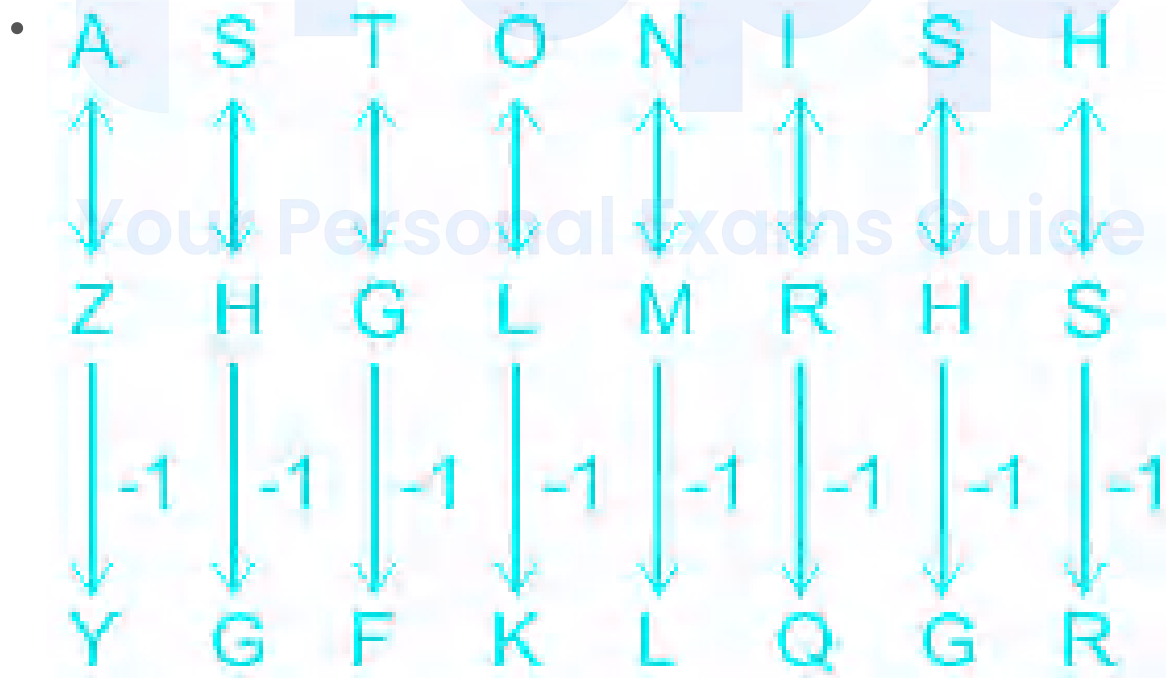
Explanation:

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

The logic followed here is:



Similarly,



Hence, 'YGFKLQGR' is the correct answer.

7. Answer: b

Explanation:

The correct option that indicates the arrangement of the given words in a logical and meaningful order is:

- Phylum a principal taxonomic category that ranks above class and below kingdom .
- Class is a taxonomic group consisting of one or more related orders .
- Order is a taxonomic group containing one or more families .

iii. Kingdom

v. Phylum

i. Class

iv. Order

ii. Family

Hence, ' iii, v, i, iv, ii ' is the correct answer.

Your Personal Exams Guide

8. Answer: a

Explanation:

Given sequence: c _ _ w z c _ n _ z c j _ w _ _ j n _ z

1. j, n, j, w, n, z, c, w → c j n w z - c j n w z - c j n w z - c j n w z
2. n, j, j, w, n, c, z, w → c n j w z - c j n w z - c j n w c - z j n w z
3. j, n, j, w, z, n, c, w → c j n w z - c j n w z - c j z w n - c j n w z
4. n, j, n, w, n, z, c, w → c n j w z - c n n w z - c j n w z - c j n w z

- In option 1, c j n w z is repeated.

Hence, 'j, n, j, w, n, z, c, w' is the correct answer.

9. Answer: c

Explanation:

The logic followed here is:

Logic: In a column: (2nd number - 3rd number) \div 2 = 1st number

Column 2: $(95 - 49) \div 2 = 46 \div 2 = 23$

Column 3: $(62 - 28) \div 2 = 34 \div 2 = 17$

Similarly,

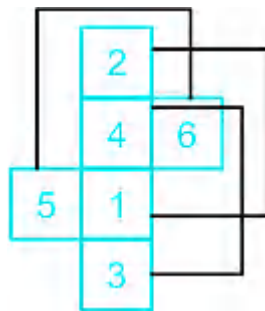
Column 1: $(74 - 44) \div 2 = 30 \div 2 = 15$

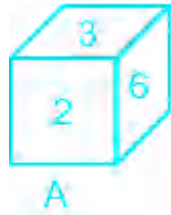
Hence, '15' is the correct answer.

10. Answer: a

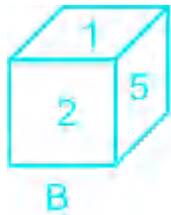
Explanation:

Faces opposite to each other is shown below:





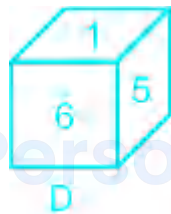
→ It can be formed.



→ It cannot be formed as 2 and 1 are



→ It can be formed.



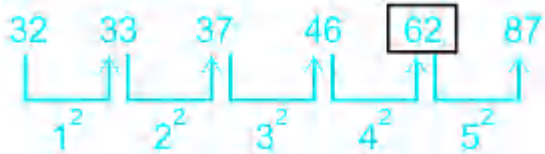
→ It cannot be formed as 5 and 6 are opposite faces.

Hence, 'Only A and C' is the correct answer.

11. Answer: c

Explanation:

The logic followed here is:



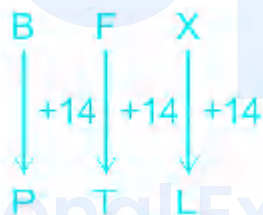
Hence, ' 62 ' is the correct answer.

12. Answer: d

Explanation:

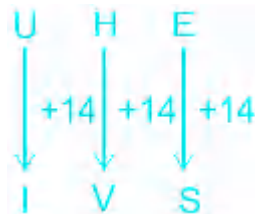
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic followed here is:



Your Personal Exams Guide

Similarly,



Hence, 'IVS' is the correct answer.

13. Answer: c

Explanation:

Let us assume that Ramesh has 'a' number of equal coins.

According to question:

$$1a + 5a + 10a = 640$$

$$\Rightarrow 16a = 640$$

$$\Rightarrow a = 640 \div 16$$

$$\Rightarrow a = 40$$

Therefore, total number of coins that Ramesh have = $3a = 3 \times 40 = 120$

Hence, '120' is the correct answer.

14. Answer: a

Explanation:

Letters	A	B
Meaning	+	-

The signs 'x' and '÷' are interchanged.

$$12 \times (81 - 18) \div 9 - 34 + 12 \div 6$$

$$= 12 \times 63 \div 9 - 34 + 2$$

$$= 12 \times 7 - 34 + 2$$

$$= 84 - 34 + 2$$

= $86 - 34$

= 52

Hence, '52' is the correct answer.

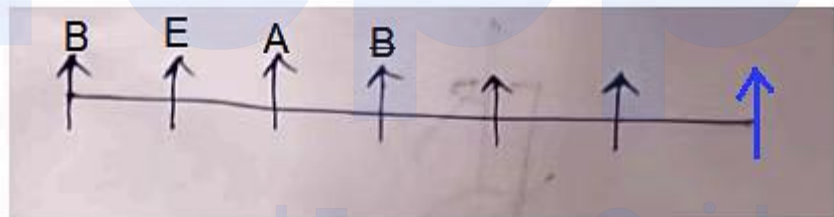
15. Answer: b

Explanation:

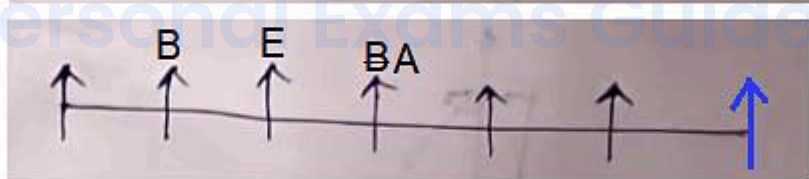
Seven friends, A, B, C, D, E, F and G, are sitting in a row facing north.

1. B is not sitting in the middle of the row.
2. A is sitting second to the right of B.
3. E is sitting between B and A.

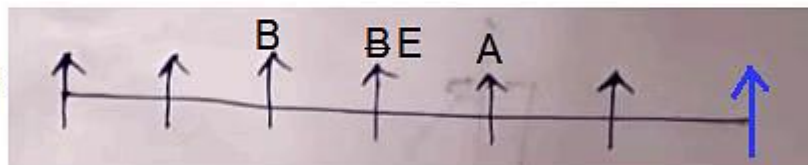
Case I:



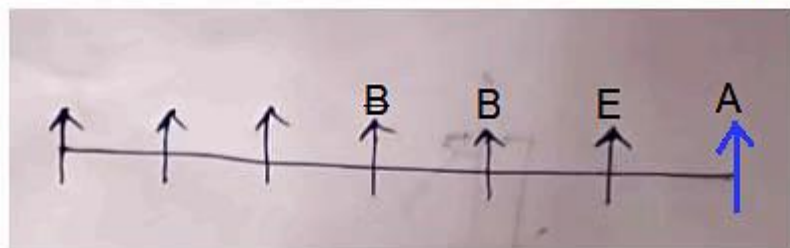
Case II:



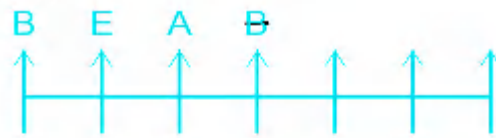
Case III:



Case IV:



Case -I



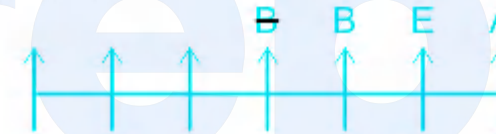
Case -II



Case -III



Case -IV

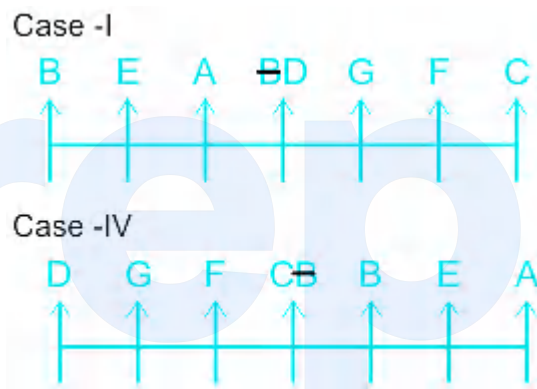
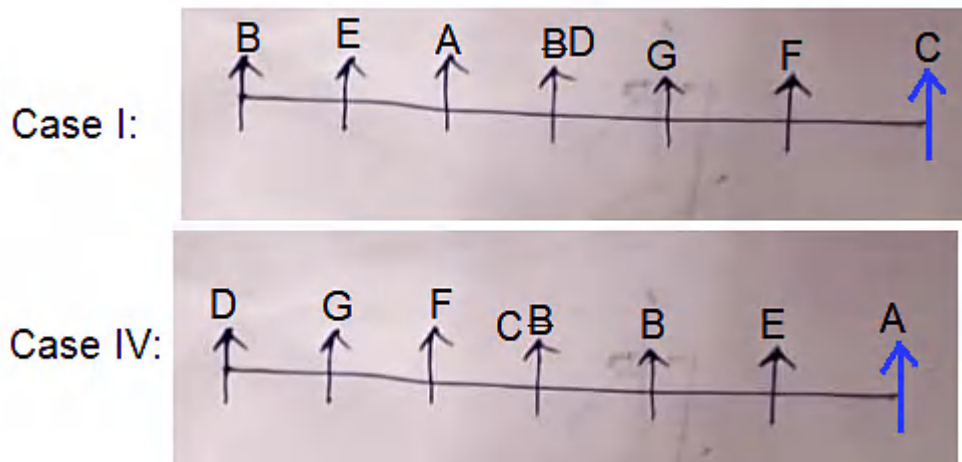


4. D is sitting second to the left of F.

5. G is sitting to the immediate left of F.

6. C is sitting second to the right of G.

Above conditions 4, 5 and 6 cannot be satisfied in Case II and III, so they are eliminated.



From Case I, 'D' is sitting in the middle of the row and from Case IV, 'C' is sitting in the middle of the row.

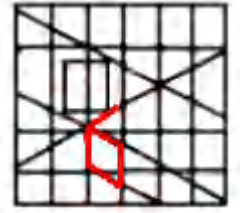

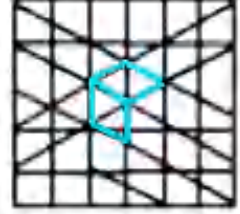



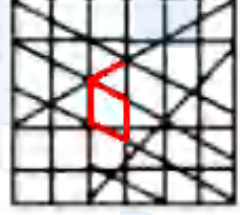

As in the options only 'D' is present, the answer to the question will be 'D'.

Hence, 'D' is the correct answer.

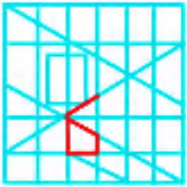



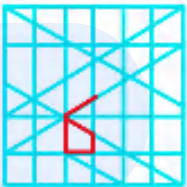

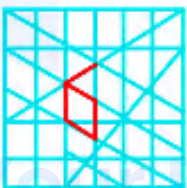

16. Answer: b

Explanation:

The image embedded in given figure is as shown below:

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

Your Personal Exams Guide

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

Hence, ' option 2 ' is the correct answer.

17. Answer: c

Explanation:

Five friends P, Q, R, S and T are travelling in a bus. All are sitting in five different rows one after the other, facing the same direction.

1. Equal number of persons are sitting before and after R.

2. T is before R.

3. T is after Q.

Persons	Q	T	R		
---------	---	---	---	--	--

4. P is sitting just ahead of S.

Persons	Q	T	R	P	S
---------	---	---	---	---	---

Clearly, S is sitting at the end.

Hence, 'S' is the correct answer.

18. Answer: d

Explanation:

The logic followed here is:

Logic: $(1st\ Number \times 5) + (1st\ Number - 5) = 2nd\ Number$

- $12 : 67 \rightarrow (12 \times 5) + (12 - 5) = 60 + 7 = 67$

Similarly,

- $16 : ? \rightarrow (16 \times 5) + (16 - 5) = 80 + 11 = 91$

Hence, '91' is the correct answer.

19. Answer: b

Explanation:

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

The logic followed here is:

Handwritten calculations for the word "LEEW":

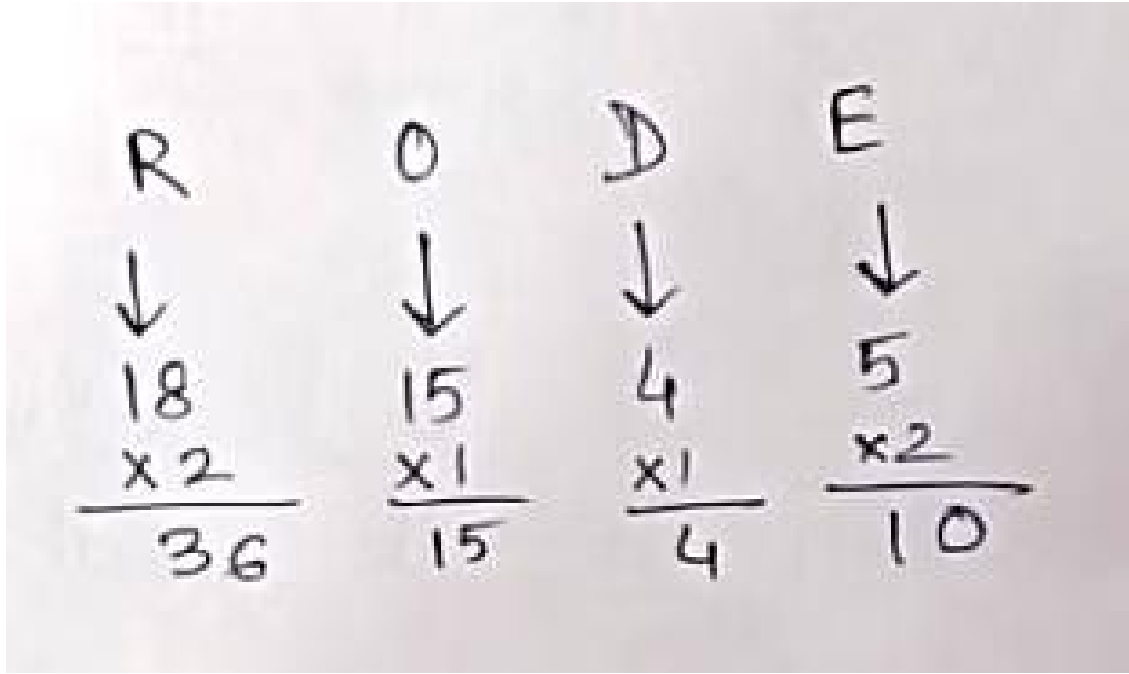
- F → 6 → $6 \times 2 = 12$
- L → 12 → $12 \times 1 = 12$
- E → 5 → $5 \times 1 = 5$
- W → 23 → $23 \times 2 = 46$

Your Personal Exams Guide

F	L	E	W
↓	↓	↓	↓
6	12	5	23
x2	x1	x1	x2
-----	-----	-----	-----
12	12	5	46

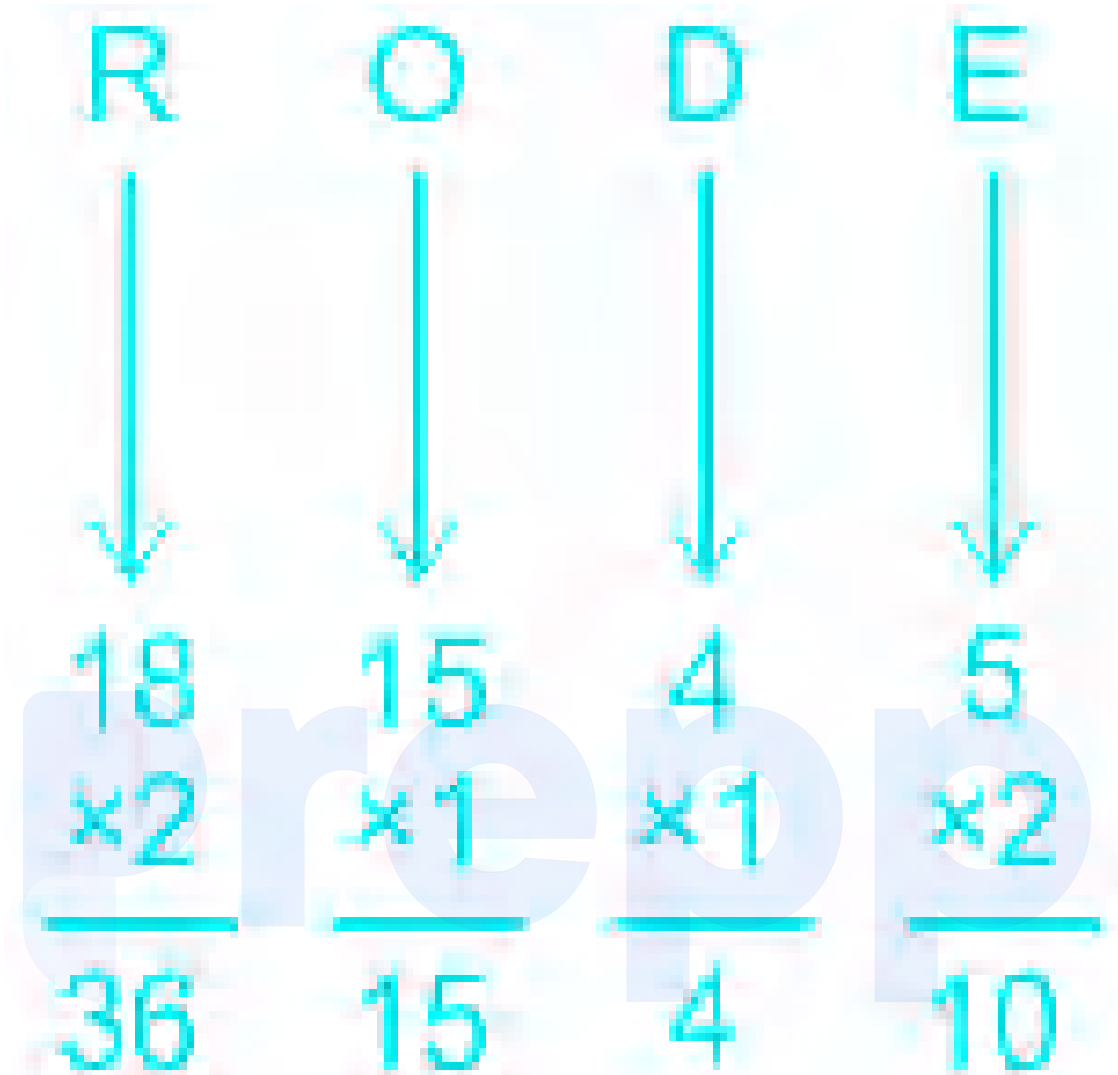
Your Personal Exams Guide

Similarly,



prepp

Your Personal Exams Guide

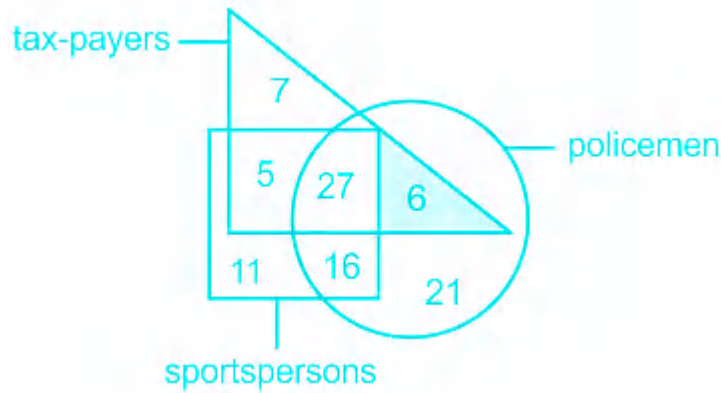


Hence, '3615410' is the correct answer.

20. Answer: c

Explanation:

Policemen are tax-payers but are NOT sportspeople is shown below:

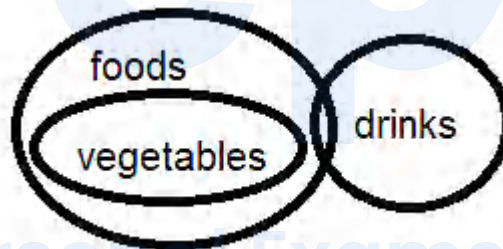


Hence, '6' is the correct answer.

21. Answer: d

Explanation:

The least possible Venn diagram is:



Your Personal Exams Guide



Conclusions:

I. Some drinks are foods. → **Follows** (As, Some foods are drinks)

II. Some vegetables are drinks. → Do not follow (As, there is no definite relation between vegetables and drinks. Hence, false)

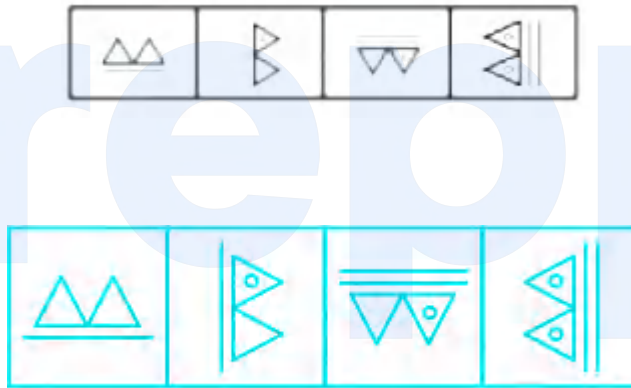
Hence, Only conclusion I follows .

22. Answer: d

Explanation:

The two triangles in the figure is moving in clockwise direction as we move along the series.

In the first two figures, there is one line opposite to the base of the image . In the third figure, there is two lines opposite to the base of the image . So, in the next figure also there should be two lines opposite to the base of the image.



Hence, 'option 4' is the correct answer.

23. Answer: b

Explanation:

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

The logic followed here is:

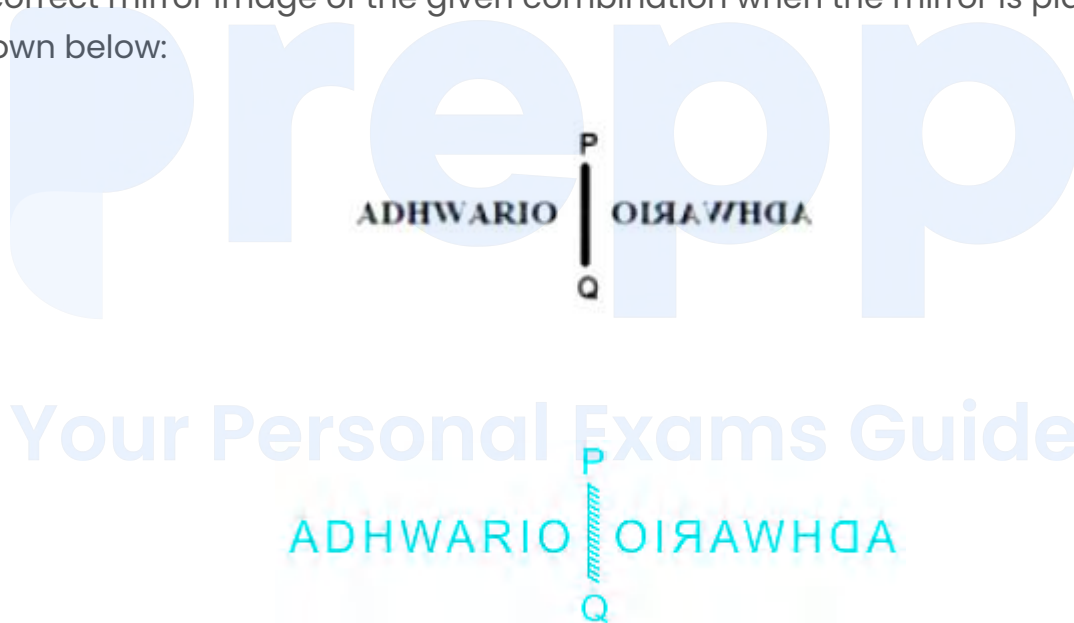
1. ZBFL \rightarrow Z + 2 = B; F + 6 = L
2. OQUB \rightarrow O + 2 = Q; U + 7 = B
3. MOSY \rightarrow M + 2 = O; S + 6 = Y
4. BDHN \rightarrow B + 2 = D; H + 6 = N

Hence, 'OQUB' is the odd one out.

24. Answer: b

Explanation:

The correct mirror image of the given combination when the mirror is placed at PQ is shown below:



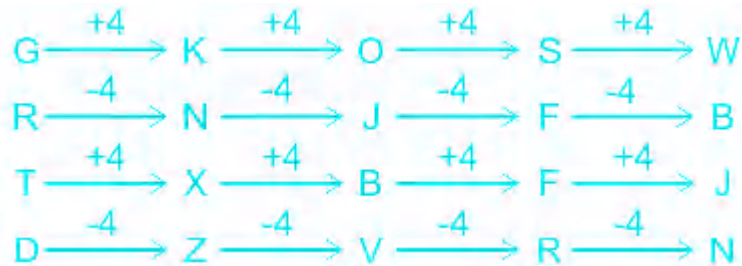
Hence, 'option 2' is the correct answer.

25. Answer: c

Explanation:

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

The logic followed here is:



Hence, 'WBJN' is the correct answer.

26. Answer: b

Explanation:

The correct answer is Assassination of plague commissioner by Chapekar brothers.

★ Key Points

- The assassination of WC Rand was the first political assassination of a British officer in India after the 1857 Revolt.
- Brothers Damodar, Balkrishna, and Vasudeo Chapekar shot at **WC Rand, ICS, Chairman of the Special Plague Committee in 1897.**
 - **Hence it happened before partition of Bengal.**
- The brothers were against the atrocities committed by the British authorities under Rand in the name of controlling the plague epidemic in Pune.
- The government in order to curb the spread of the epidemic ended up harassing Indians and employing extreme measures.
- All the three brothers were hanged for the assassination.

Chapekar Brothers include -

1. Damodar Hari Chapekar (1869 - 18 April)
2. Balkrishna Hari Chapekar (1873 - 1889)
3. Vasudeo Hari Chapekar (1880 - 1899)

- Balkrishna Hari Chapekar is also known as " Bapurao " .
- They were called " Chapekar Brothers " because they belonged to a small hamlet of Pune called " Chapa " .
- The web television series that is made after these brothers are called " Gondya Ala re " .

★ Additional Information

- The Jallianwala Bagh massacre , also known as the Amritsar massacre , took place on 13 April 1919 in Jallianwala Bagh, Punjab.
 - People gathered at Jallianwala Bagh to celebrate the festival of Baisakhi and to protest against the arrest of two leaders, Satyapal and Saifuddin Kitchlew.
 - General Dyer with his troops, blocked all exits of the bagh and opened fire on the innocent and unarmed people.
- Kakori Conspiracy is also known as Kakori Kand, Kakori Conspiracy Case, or The Kakori Train Robbery.
 - It was an armed robbery that took place on August 9, 1925, on a train in central Uttar Pradesh.
 - The robbery occurred at the town of Kakori, about 16 km from Lucknow which was where the train was headed.
- Chauri Chaura incident took place in 1922 in Gorakhpur District of Uttar Pradesh.
 - In the Chauri-Chaura incident, protestors set fire to a police station that led to the death of 23 policemen and three 3 civilians.
 - Because of the Chauri Chaura incident, Mahatma Gandhi halted the Non-co-operation movement.

27. Answer: c

Explanation:

The correct answer is **Article 32**.

★ **Key Points**

- **Article 32** of the Constitution of India empowers the Supreme Court to issue writs.
- Writs are a form of written command in the name of a court or other legal authority to act, or abstain from acting, in a particular way.
- The Supreme Court (under Article 32) and the High Courts (under Article 226) can issue the writs of Habeas corpus, Mandamus, Prohibition, Certiorari and Quo-warranto.
- Both the Supreme Court and High courts can issue writs for enforcement of fundamental rights.
- These writs form an important part of the Right to Constitutional remedy under Article 32.
- In *Shrimanth Balasaheb Patil Case*, the supreme court added Writ Jurisdiction as a part of the Basic Structure of the constitution.
- In judgement, it is mentioned that we may note that writ jurisdiction is one of the valuable rights provided under Article 32 of the Constitution, which in itself forms part of the basic structure of the Constitution.

★ **Additional Information**

Your Personal Exams Guide

Habeas Corpus	Means to have the body of the person.
	To protect the fundamental right to liberty of an individual against unlawful detention.
	Locus Standi does not apply.
	Can be issued against the State or an individual.
Mandamus	Means We command.
	It is issued to a subordinate court, an officer of the government, or a corporation.
	It cannot be issued against a private individual.
	Locus Standi applies.
Quo Warranto	Means by what authority or warrant.
	It is issued against a person who claims a public office created by statute or under the Constitution.
	Locus Standi does not apply.
Certiorari	Means to be certified.
	Issued to a lower court directing that the transfer of a case for review.
	Issued in case the higher court finds it a matter of over jurisdiction or lack of jurisdiction.
	Locus standi applies.
Prohibition	Means to forbid.
	Issued by a higher court to a lower court to enforce inactivity in the jurisdiction.
	It can only be issued against judicial and quasi-judicial authorities.

Locus standi applies.

28. Answer: c

Explanation:

The correct answer is Bal Gangadhar Tilak.

★ Key Points

- Bal Gangadhar Tilak raised the Slogan, 'Freedom is my birth right and I shall have it'
- Bal Gangadhar Tilak , commonly known as Lokamanya Tilak was a leader of the Indian independence movement.
- Tilak was also known as 'Father of Indian Unrest.
- He belonged to the extremist faction.
- He published two papers – Kesari in Marathi and Mahratta in English.
- He was fearless in his criticism of the government in these papers.

★ Additional Information

Freedom Fighters	Their Slogans	
Subhas Chandra Bose	Give me blood and I will give you freedom	
Mahatama Gandhi	Do or Die	
Bal Gangadhar Tilak	Freedom is my birthright and I shall have it'	
Jawahar Lal Nehru	Cast off Laziness	

29. Answer: b

Explanation:

The correct answer is Vijendra Singh.

★ Key Points

- **Vijendra Singh** has NEVER played professional cricket for India.
- Vijender Singh Beniwal is an **Indian professional boxer and politician**.
- As an amateur, he won a bronze medal at the 2008 Beijing Olympics, becoming the **first Indian boxer to win an Olympic medal**.

★ Additional Information

- **Sourav Chandidas Ganguly** , affectionately known as Dada.
- He is an Indian cricket administrator, commentator and former national cricket team captain who is the **39th and current president of the Board of Control for Cricket in India**.
- **Virender Sehwag** is a former Indian cricketer. He represented India from 1999 to 2013.
 - He played for Delhi and Haryana in Indian domestic cricket.
- **Harbhajan Singh** is a Member of Parliament, Rajya Sabha and a former Indian cricketer and cricket commentator who played for the Indian national cricket team.
 - A specialist spin bowler, Singh played for India between **1998 and 2016**.

30. Answer: c

Explanation:

The correct answer is Nagaland.

★ Important Points

- The Zabo system of rice cultivation is an indigenous method of water harvesting practiced in **Nagaland**.
- The way of doing rural farming 'Zabo' exists in Nagaland .

- 'Zabo', which means impounding water, is an ingenious method of catching rainwater from running off the mountains.
 - It involves the preservation of forests on the hilltops as they are the catchment for the water.
 - At the next level are the ponds dug out to hold rainwater, which is brought there through small channels.
 - The zabo is the chosen water harvesting system of the Chakhesang tribals of Nagaland's Kikruma village.
 - Placed by fate in the rain shadow of a mountain receives 1,613 mm of average annual rainfall.

31. Answer: b

Explanation:

The correct answer is Madhya Pradesh.

★ Key Points

- Grida is the folk dance form of Madhya Pradesh.
 - Once the winter season's rabi crop is ready for harvest, the villagers celebrate by performing the Grida Dance and celebrating their labour and hard work.

★ Additional Information

Other dance of Madhya Pradesh

- Macha
- Lota
- Pandvan
- Tertali
- Charkula
- Jawara
- Matki dance
- Phulpatti dance

- Grida dance
- Gaur maria

32. Answer: c

Explanation:

The correct answer is 1999.

★ Key Points

- **Leander Paes and Mahesh Bhupathi** won the Wimbledon men's doubles title in 1999 .
- At the 1999 French Open, Leander Paes and Mahesh Bhupathi beat the Croatian-American pair of Goran Ivanisevic and Jeff Tarango 6-2, 7-5 in the final to become the first all-Indian pair to win a Grand Slam championship.

★ Additional Information

- **Leander Adrian Paes** is a retired professional tennis player from India.
 - He is regarded as one of the greatest doubles tennis players ever.
 - He holds the record for the most doubles wins in the Davis Cup.
- **Mahesh Shrinivas Bhupathi** is an Indian former doubles world No. 1 tennis player.
 - In 1997, he became the first Indian to win a major tournament.
 - With his win at the 2006 Australian Open mixed doubles, he joined the elite group of eight tennis players who have achieved a career Grand Slam in mixed doubles.

33. Answer: d

Explanation:

The correct answer is 4%.

★ Key Points

- **Repo Rate** at which RBI lends money to commercial banks in the event of any shortfall of funds.
- Repo Rate in October 2020 is **4%**.
- **Reverse Repo Rate** is the rate at which RBI borrows money from commercial banks within the country.

Key Differences between Repo Rate and Reverse Repo Rate :

Repo Rate	Reverse Repo Rate
Always higher than the RR Rate	Comparatively less than Repo Rate
Fulfill the deficiency of funds	Ensure the liquidity in the economy
Monetary tool for controlling the Inflation	Monetary tool for controlling the supply of money in the economy.

★ Additional Information

RBI Repo Rate 19 Sep 2022

Repo Rate	5.40%
Bank Rate	5.15%
Reverse Repo Rate	3.35%
Marginal Standing Facility Rate	5.15%

34. Answer: a

Explanation:

The correct answer is Tamil Nadu.

★ Important Points

- Union Health Minister Dr Harsh Vardhan on Wednesday inaugurated the "**Portable Transit Hospital Structure**" at National Disaster Response Force (NDRF) **4th Bn Station Arakkonam, in Tamil Nadu.**
- "The features of Prefabricated Isolation Centre include:
 - It can be ready in very less time.
 - It is very light and can be easily moved from one place to another.
 - It is completely safe and it is safe from the environment's point of view.

★ Additional Information

- **Harsh Vardhan** is an Indian **otorhinolaryngologist**.
- He had served as the Minister of Health and Family Welfare, Minister of Science and Technology and Minister of Earth Sciences in the BJP-led NDA government of Prime Minister Narendra Modi from **30 May 2019 to 7 July 2021.**

35. Answer: a

Explanation:

The correct answer is Brahmaputra.

★ Key Points

- Dihing or Burhi Dihing is a large tributary, about **380 kilometres long, of the Brahmaputra River in Upper Assam in northeastern India.**
- Brahmaputra originates under the name of Siang or Dihang, from the Angsi glacier of the Kailash range near the Mansarovar lake.
- It enters India west of Sadiya town in Arunachal Pradesh .
- Tributaries : Dibang, Lohit, Siang, Burhi Dihing, Tista, and Dhansari.
- It is known as Tsangpo in Tibet and Yarlung Zangbo in China .
- The river crosses Assam below Dhubri and enters Bangladesh where the river is known as Jamuna and it flows for 337 km .
- It is a perennial river and has several peculiar characteristics due to its geography and prevailing climatic conditions.

★ Additional Information

- Tributaries from the left bank are:
 - Lhasa River, Nyang River, Parlung Zangbo, Lohit River, Dhansiri River and Kolong River
- Tributaries from the right bank are:
 - Kameng, Manas, Beki, Raidak, Jaldhaka, Teesta and Subansiri River

36. Answer: b

Explanation:

The correct answer is Ramacharitam/Rampalcharit.

★ Key Points

- **Ramacharitam/Rampalcharit** literary works was created by Sandhyakar Nandi.
- It is a Sanskrit epic poem written in Arya meter by Sandhyakar Nandi during Pala Empire.
- This work simultaneously narrates the story of the Ramayana and the Pala King Ramapala.
- Sandhyakar Nandi
 - He was an ancient poet from the Pala Dynasty.
 - He became famous for his Ramacharitam, a biographical history in verse. It was written in sanskrit language.
 - He was patronaged by Madanapala and his biographical details are retrieved from the Kaviprashasti (of 20 couplets) appended at the end.

★ Additional Information

- **Buddhacharita**, an epic on the life Buddha, was written by Ashvaghosh .
 - He also wrote Saundarananda , with the theme of conversion of Nanda, Buddha's half brother, so that he might reach salvation.
- **Arthashastra** entails the science (sastra) of wealth/earth/polity (artha). ' Artha ' however is a bit wider and an all-embracing term with different meanings.

- In a simple way, 'Arthashastra' can be explained as 'science and art of politics and diplomacy'.
 - Gita Govinda was written by Kavi Jaydeva in Sanskrit.
 - Jayadeva was born in the middle of the 12th century and his birthplace was Kendubilwa.
-

37. Answer: b

Explanation:

The correct answer is HCL.

★ Key Points

- Muriatic acid is the another name for hydrochloric acid (HCl) which is an inorganic compound that is strongly acidic in nature.
- It has a wide range of applications – food additive, gelatin production, leather processing, industrial synthesis of PVC and vinyl chloride, descaling agent, dissolve rocks in oil production, steel pickling, etc.

★ Additional Information

Your Personal Exams Guide

Acid	Source
Muriatic Acid	It is also known as Hydrochloric Acid
Formic Acid	It is found in red ants
Salicylic Acid	It has Antiseptic properties, used in preparation of Aspirin
Acetoacetic Acid	It occurs in excess in the Urine of diabetic patients

38. Answer: d

Explanation:

The correct answer is Indica.

★ Key Points

- Megasthenese wrote extensively in a book called **Indica**.
- The fragments of Indica, provide valuable information on Maurya Administration, social classes and economic activities.
- Megasthenes states that Indian society was divided into 7 classes.
- The famous city of Pataliputra was described in detail by Megasthenese, references of which are found in the writings of *Strabo*, *Arian* and other Greek writers.

★ Additional Information

- **The Arthashastra** is an Ancient Indian Sanskrit treatise on statecraft, political science, economic policy and military strategy.

- **Kautilya**, also identified as Vishnugupta and Chanakya, is traditionally credited as the author of the text.
- The **Periplus of the Erythraean Sea**, also known by its Latin name as the **Periplus Maris Erythraei**, is a Greco-Roman periplus written in Koine Greek that describes navigation and trading opportunities.
- **Natural history** is a domain of inquiry involving organisms, including animals, fungi, and plants, in their natural environment, leaning more towards observational than experimental methods of study.

39. Answer: a

Explanation:

The correct answer is Housewife's work.

★ Key Points

- The value of which of the Housewife's work in the **national income**.
- The income method measures national income from the side of payments made to the primary factors of production for their productive services in an accounting year.
- It also includes the net factor income from abroad .
- The national income measured by the income method minus NFIA gives the domestic income.

★ Additional Information

- National Income Committee was set up in 1949 under Chairman Dr P C Mahalanobis , who was the then chairman of the Indian Statistical Institute.
- Currently, the National Statistical Office (NSO) estimates National Income under the Ministry of Statistics and Programme Implementation .
- The first rough estimate of National Income was done by Dadabhai Naoroji for 1867-68.
 - It was published in his book Poverty and Unbritish rule in India , which is famous for its Drain of Wealth theory .
- The first scientific estimate made by Prof V K R V Rao 1931-32 .

- The Indian government estimated the National Income for the first time in 1948-49 through the Ministry of Commerce .
-

40. Answer: b

Explanation:

The correct answer is Rohan Jaitely.

★ Key Points

- **Rohan Jaitely** was the President of Delhi District Cricket Association as of November 2020.
- Rohan Jaitley, the son of former Union minister Arun Jaitley, is set to remain the president of the Delhi and Districts Cricket Association.

★ Additional Information

- **Lt. General Ajay Kumar Singh** PVSM, AVSM, SM, VSM is the former Lieutenant Governor of Andaman and Nicobar Islands.
 - **Shri Rajiv Jalota** is a Master of Science in Chemistry from Lucknow University. He joined Indian Administrative Service in 1988.
 - **Nilesh Shah** is the Managing Director of Kotak Mahindra Asset Management Co. Ltd.
 - He has over 30 years of experience in capital markets and have managed funds across equity, fixed income and real estate for local and global investors.
-

41. Answer: a

Explanation:

The correct answer is Oxygen.

★ Important Points

- **Greenhouse gases** are known so as they act like a greenhouse on the surface of the planet.
- Greenhouse gases are known as heat-trapping gases as they increase the temperature of the atmosphere by trapping heat.
- The greenhouse effect leads to the cause of global warming.
- The primary greenhouse gases in Earth's atmosphere are:
 - water vapour (H₂O),
 - carbon dioxide (CO₂),
 - methane (CH₄),
 - nitrous oxide (N₂O), and
 - ozone (O₃).
- Methane, Nitrous oxide, and Carbon dioxide are the primary greenhouse gases related to agriculture.

Hence Oxygen is NOT known as a greenhouse gas.

42. Answer: d

Explanation:

The correct answer is Ohm's law.

★ Key Points

- Ohm's law states that temperature and other physical conditions remaining the same, the current through a conductor between two points is directly proportional to the voltage across the two points.
- **Voltage = Current × Resistance**
 - $V = I \times R$
- **V = voltage, I = current and R = resistance**
- The SI unit of resistance is ohms and is denoted by Ω .
- It helps to calculate the power, efficiency, current, voltage, and resistance of an element of an electrical circuit.

- If an element follows the ohm's law, then the element is known as a linear element.



Additional Informatio

Coulomb's Law	It states that two stationary point charges attract or repel each other with a force that is directly proportional to the product of the magnitude of charges and inversely proportional to the square of the distance between them.
Hooke's Law	According to this law within the elastic limits, the stress is directly proportional to the strain produced in a body.
Pascals Law	It states that if the effect of gravity is neglected, the pressure at every point of liquid in equilibrium or rest is the same.
Stefan's Law	According to this law, the amount of heat radiated by unit area of the surface in one second is directly proportional to the fourth power of absolute temperature of the body

43. Answer: a

Your Personal Exams Guide

Explanation:

The correct answer is scientists to carry out biological experiments in space.

★ **Key Points**

- In September 2021, a team of researchers at the Indian Institute of Science (IISc) and the Indian Space Research Organisation (ISRO) developed a device that could enable **scientists to carry out biological experiments in space**.
- It will be used to cultivate microorganisms, which could enable scientists to carry out biological experiments in outer space.
- The research study has been published in Acta Astronautica.
- Known as one of the top aerospace engineering journals.

★ Additional Information

- IISc
 - Public, deemed, research university for higher education and research in science, engineering, design, and management.
 - Located in Bengaluru, in the Indian state of Karnataka.
- ISRO
 - The Indian Space Research Organization is the national space agency of India, headquartered in Bangalore.
 - It operates under the Department of Space which is directly overseen by the Prime Minister of India, while the Chairman of ISRO acts as the executive of DOS.

44. Answer: d

Explanation:

The correct answer is Maulana Abul Kalam Azad.

★ Key Points

- **Maulana Abul Kalam Azad** had the charge of education portfolio in the first cabinet of free India in 1947.
- Born on 11th November 1888 in Mecca, Saudi Arabia.
- Wrote weekly journals Al-Hilal and Al-Balagh .
- Famously called Congress Showboy .
- Participated in the Non-Cooperation Movement, the Quit India movement, etc.
- He was the first Education Minister of India.
- His birth anniversary is celebrated as National Education Day(11th November) .
- He declined the Bharat Ratna Award.
- He argued that those who selected the awardees should not be the recipients themselves.
- He was awarded in the year 1992 posthumously.

★ Additional Information

- **Bhimrao Ramji Ambedkar** came from an untouchable caste called the Mahars .
 - Through modern methods, he integrated untouchables into Indian society.
 - He established the Samaj Samta Sangh in 1927 to propagate the gospel of social equality between untouchables and Hindu castes .
 - Additionally, he organized temple entry movements .
 - Ambedkar emerged as one of the major leaders of the depressed classes before the Round Table Conference in 1930-31.
 - He demanded constitutional safeguards for the depressed classes .
- **Maulvi Liaquat Ali** was a Muslim religious leader from Allahabad (Prayagraj), in the state of Uttar Pradesh in present-day India.
 - He was one of the leaders in the revolt against the British in 1857.
 - This war was also known as the First War of Independence.
- **Dr. Rajendra Prasad** was the longest-serving President of India (1950 to 1962).
 - Dr. Rajendra Prasad was elected as the first President of India on 24th January 1950
 - He was one of the prominent leaders of the Indian independence movement and played a prominent role as the President of the Indian National Congress.
 - He served as the president of the Constituent Assembly that drafted the first constitution of the Republic of India, which lasted from 1948 to 1950.

45. Answer: c

Explanation:

The correct answer is Vijayadashami.

★ Key Points

- The tenth day after Sharad Navratri is celebrated as **Dussehra or Vijayadashami**.
- Navratri ("nine nights") also called Durga Puja, in Hinduism, is a major festival held in honor of the divine feminine.

- Navratri occurs over 9 days during the month of Ashvin, or Ashvina (in the Gregorian calendar, usually September–October).
- It often ends with the Dussehra (also called Vijayadashami) celebration on the 10th day.
- Additionally, as Navratri depends on the lunar calendar, in some years it may be celebrated for 8 days, with Dussehra on the 9th.
- There are four similar festivals, also called Navratri, which are held at various stages of the year; however, the early autumn festival, also called Sharad Navratri, is the most significant.

★ Additional Information

- **Dhanteras**, also known as Dhanatrayodashi, is the first day that marks the festival of Diwali in India.
 - It is celebrated on the thirteenth lunar day of Krishna Paksha in the Hindu calendar month of Ashvini.
- **Navaratri** is a biannual and one of the most revered Hindu festivals observed in the honour of Mother Goddess Durga.
- **Durga Ashtami or Maha Ashtami** is one of the most auspicious days of the five days long Durga Puja Festival celebrated in the honor of mother goddess Durga.

46. Answer: d

Explanation:

The correct answer is disguised unemployment.

★ Key Points

- When more than the required number of people are engaged in a job, it is known as Disguised unemployment.
- It is unemployment that does not affect aggregate economic output.
- It occurs when productivity is low and too many workers are filling too few jobs.
- It can refer to any part of the population that is not employed at full capacity.

- An example can be an individual with a college or university degree taking up a job as a teller due to an inability to find a job more fitting for their qualifications. It is also known as hidden unemployment

★ Additional Information

- Seasonal unemployment
 - It is a type of structural unemployment that happens when the structure of the economy changes from month to month.
 - Some jobs close down because the seasons change. When workers lose their jobs because of this, it's considered seasonal unemployment.
- Involuntary unemployment
 - It occurs when a person is unemployed despite being willing to work at the prevailing wage. It is distinguished from voluntary unemployment, where a person refuses to work because their reservation wage is higher than the prevailing wage.
- Frictional unemployment
 - It occurs when workers leave their old jobs but haven't yet found new ones.
 - Frictional unemployment is short-term and a natural part of the job search process

47. Answer: c

Explanation:

The correct answer is Awadhi.

★ Key Points

- Tulsidas's composition, the **Ramcharitmanas**, was written in **Awadhi language**.
- Tulsidas wrote Ramcharitmanas during the reign of Akbar.
- Tulsidas was a contemporary of William Shakespeare.
- The Tulsi Ghat on the Ganges River in Varanasi is named after Tulsidas.
- Tulsidas started the Ramlila plays.

★ Additional Information

- **Tulsidas** began writing the Ramcharitmanas in Ayodhya in Vikram Samvat 1631 (1574 CE).
- Ramcharitmanas was composed at Ayodhya, Varanasi & Chitrakoot.
- India was under the reign of Mughal emperor Akbar (1556-1605 CE) during this period.
- This also makes Tulsidas a contemporary of William Shakespeare.

48. **Answer: a**

Explanation:

The correct answer is Rakesh Kaul.

★ Key Points

- Rakesh Kaul wrote the novel '**The Last Queen of Kashmir**'.
- **The Last Queen of Kashmir** is the sweeping saga of a civilization in peril.
- It is also the tale of one of the greatest queens of the land – one that will speak to the men and women of today.
- **Rakesh K. Kaul**, whose family hails from Kashmir, migrated to the US in 1972.

★ Additional Information

- Indian-American author Chitra Banerjee Divakaruni's other book is 'The Last Queen' on Rani Jindan Kaur.
- The Last Queen will be released by HarperCollins India in January 2021.
- **Sudha Murthy** has authored several books like how the onion got its layer, House of Cards: A Novel, Gopi Diaries, how I taught my grandmother to read, dollar Bahu, etc.
 - Sudha Murthy is an engineer and writes in Kannada, Marathi and English and is also a social worker.
- Chetan Bhagat Books:
 - One Night @the Call Centre
 - Half Girlfriend

- 5 Point Someone
 - The Three Mistakes of My Life
 - 2 States
 - Half Girlfriend
 - What India Wants
-

49. Answer: c

Explanation:

The correct answer is Janata Dal United.

★ Important Points

- **Nitish Kumar**, who took an oath as the Chief Minister of Bihar on 16 November 2020, belongs to Janata Dal United.
 - The Janata Party was a political party that was founded as an amalgam of Indian political parties opposed to the Emergency that was imposed between 1975 to 1977 by Prime Minister Indira Gandhi of the Indian National Congress.
 - In the 1977 general election, the party defeated the Congress and Janata leader Morarji Desai became the first non-Congress prime minister in independent modern India's history.
 - Nitish Kumar started his political career with Janata Party.
 - The rationale of the formation was that of preserving national security.
 - When the State of Emergency was lifted and new elections called in 1977, opposition political parties such as the Congress (O), Bharatiya Jana Sangh, Bharatiya Lok Dal as well as defectors from the Congress (R) joined to form the Janata Party, which won a sweeping majority in the Indian Parliament.
-

50. Answer: b

Explanation:

The correct answer is Rudraprayag.

★ Key Points

- Rudraprayag is one of the Panch Prayag (five confluences) of the Alaknanda River, the point of confluence of the Alaknanda and Mandakini rivers .
- Rudraprayag is situated at the confluence of the Alaknanda and Mandakini rivers.
- Mandakini is also known as Kali Ganga.
- The Sharda/Sarayu/Mandakini/Kali Ganga river originates in the Milam Glacier in the Nepal Himalayas where it is known as Goriganga.
- Along the Indo-Nepal border, it is called Kali or Chowk, where it joins the Ghaghara .

★ Additional Information

- Vishnuprayag is the confluence of Alaknanda River and Dhauliganga River, in Chamoli district in Uttarakhand .
- Karnaprayag is the confluence of the Alaknanda and Pindar River , in Chamoli district in Uttarakhand ..
- Nandprayag is the confluence of river Alaknanda and Nandakini, in Chamoli district in Uttarakhand .
- Devprayag is the confluence of river Alaknanda and Bhagirathi, in TehriGarhwaldistrict in Uttarakhand .

51. Answer: b

Explanation:

Given:

With the grant of annual increment, the salary of Neera increased from Rs 45000 to Rs 48150

Calculation:

The total increase is $(48150 - 45000) = \text{Rs } 3150$

The increase percent = $(3150 / 45000) \times 100$

$\Rightarrow 3150 / 450$

$\Rightarrow 35 / 5 = 7\%$

The increased percentage is 7%

52. Answer: b

Explanation:

Concept use:

BODMAS

Calculation:

$[78 - \{5 + 3 \text{ of } (25 - 2 \times 10)\}] \div 29$

$\Rightarrow [78 - \{5 + 3 \text{ of } (25 - 20)\}] \div 29$

$\Rightarrow [78 - \{5 + 3 \times 5\}] \div 29$

$\Rightarrow 58 \div 29$

$\Rightarrow 2$

The value is 2

53. Answer: b

Explanation:

Given:

Eight years ago, the average age of a family of 4 persons was 19 years.

A baby girl is a new addition to the family

And now the average age of the family is 4 years more than it was 8 years ago

Concept used:

Average age = Total age / number of people

Calculation:

Eight years ago, the sum of the ages of the family was $19 \times 4 = 76$ years

At present ages of the family is $= 76 + (8 \times 4)$

$\Rightarrow 76 + 32 = 108$ years

After the baby The member of the family becomes $4 + 1 = 5$

So now the sum of the ages of the family is $23 \times 5 = 115$ years

So, age of the baby is $115 - 108 = 7$ years

Age of the baby is 7 years

54. Answer: a

Explanation:

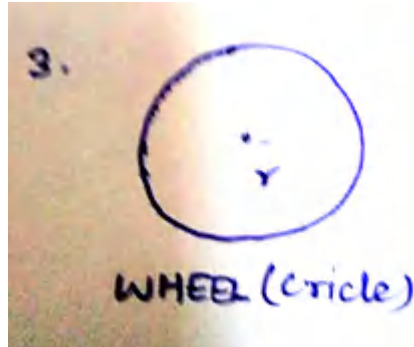
Given:

A wheel makes 1000 revolutions in covering a distance of 44 km

Formula used:

Circumference of a wheel = $2\pi r$ (r = radius)

Concept used:



In one revolution the wheel covers its own circumference.

Calculation:

As per the question,

$$2\pi r \times 1000 = 44000$$

$$\Rightarrow 2\pi r = 44$$

$$\Rightarrow (44/7)r = 44$$

$$\Rightarrow r = 7\text{m}$$

The radius of the wheel is 7 m

55. Answer: b

Your Personal Exams Guide

Explanation:

Given:

A sum of Rs x amounts to Rs10,483 after 3 years and to Rs12,727 after 7 years at the same rate per annum simple interest.

Formula used :

Principal = Amount - Interest

Calculation:

The simple interest in four years = Rs (12,727 - 10,483)

⇒ 2244 Rs

So, the simple interest in 7 years will be

⇒ $(2244 / 4) \times 7 = 561 \times 7$

⇒ 3927

So,

Principal (x) = 12727 - 3927

⇒ Rs 8800

The value of x is Rs 8800

★ Additional Information

Simple interest = (Principal × rate of interest × time) / 100

56. Answer: a

Explanation:

Given:

Arti and Rita can do a job in 8 hours (working together at their respective constant rates)

Arti can do the job alone in 10 hours.

Calculation:

Arati and Rita does in one day $1/8$ part of the total work

Alone Ariti can do one day $1/10$ part of the total work

So Rita does in one day,

$$(1/8 - 1/10)$$

$$\Rightarrow \frac{5-4}{40} = 1/40 \text{ part}$$

So Rita does total work alone in 40 days.

57. Answer: c

Explanation:

Given:

Approximate single discount equivalent to three successive discounts of 10%, 15%, and 20%

Formula Used:

Single discount equivalent to two successive discounts of a % and b %

$$= (a + b - \frac{ab}{100})\%$$

Calculation:

Here, a = 10% , and b = 15 %

So, the single discount gets, $(10 + 15 - 10 \times 15 / 100)$ %

$$\Rightarrow (25 - 1.5) \%$$

$$\Rightarrow 23.5 \%$$

Again,

Here, a = 23.5 % , and b = 20 %

So, the single discount gets,

$$(23.5 + 20 - 23.5 \times 20 / 100) \%$$

$$\Rightarrow (43.5 - 4.7) \%$$

⇒ 38.8 %

Approximate single discount is 38.8%

58. Answer: a

Explanation:

Given:

A and B can do a work in 30 and 40 days respectively.

They began the work together.

A left the work after some days and B finished the remaining work in 5 days

Concept used:

Efficiency = (Total work / Total time taken)

Efficiency = work done in a single day

Calculation:

Let, after x days A leave

Let the total work is the 120 units (LCM of 30 and 40)

Efficiency of A is $120 / 30 = 4$ units

Efficiency of B is $120 / 40 = 3$ units

So x days they both work together.

As per the question,

$$(4 + 3) \times x + 5 \times 3 = 120$$

$$\Rightarrow 7x + 15 = 120$$

$$\Rightarrow 7x = 105$$

$$\Rightarrow x = 15 \text{ days}$$

A leave after 15 days

★ Additional Information

Efficiency of a person is inversely proportional to number of days to complete the work.

59. Answer: b

Explanation:

Given:

The ratio of two numbers is 3 : 8. On adding 8 to both numbers, the ratio becomes 2 : 5 .

Calculation:

As per the question,

$$(3x + 8) / (8x + 8) = 2 / 5$$

$$\Rightarrow 15x + 40 = 16x + 16$$

$$\Rightarrow 16x - 15x = 40 - 16$$

$$\Rightarrow x = 24$$

Sum of the number is , $(3x + 8x) = 11x$

$$\Rightarrow 11 \times 24 = 264$$

Sum of the number is 264

60. Answer: c

Explanation:

Given:

I walk at a speed of 10 km/h and cover a distance in 2 hours. If I increase my speed by 5 km/h.

Concept used:

Distance = Speed \times Time

Calculation:

Total distance is $10 \times 2 = 20$ km

Next,

Speed after increased by 5 is $10 + 5 = 15$ km/h

So, time will be now $(20 \div 15) \times 60 = 80$ minutes

So time will be deducted by $120 - 80 = 40$ minutes.

40 minutes early would I reach my destination

61. Answer: d

Explanation:

Given:

Rakhi offers a discount of 30% on all the items at her shop and still makes a profit of 12%

The market price of the article is Rs 280

Formula used:

If a shopkeeper wants a profit of R% after allowing a discount of r%

Then cost price = Market price

$$\times \frac{100-r}{100+R}$$

Calculation:

As per the question,

$$\text{Cost price} = 280 \times (100 - 30) / (100 + 12)$$

$$\Rightarrow 280 \times (70/112)$$

$$\Rightarrow 280 \times (10/16)$$

$$\Rightarrow \text{Rs } 175$$

So the cost price of the article is Rs 175

★ Additional Information

Profit is calculated on cost price and discount is calculated on market price

Your Personal Exams Guide

62. Answer: b

Explanation:

Given:

A man bought some toys at the rate of 12 for Rs 48 and sold them at the rate of 8 for Rs 48

Formula used:

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

$$\text{Profit} = \text{CP} \times (\text{Profit percentage} / 100)$$

Calculation:

Cost price of each toy is $(48 / 12) = \text{Rs } 4$

The selling price of each toy is $(48 / 8) = \text{Rs } 6$

Profit after selling each toy is $6 - 4 = \text{Rs } 2$

So the profit percentage is $(2/4) \times 100 = 50\%$

His gain percentage is 50%

63. Answer: b

Explanation:

Given:

A box contains 50p and 25p coins in the ratio 9 : 5, amounting to Rs 207

Concept used:

In 1 Rs there are two 50p coins and four 25p coins.

Calculation:

Coins number ratio = 9:5

Amounts ratio $(9 / 2) : (5 / 4)$

$\Rightarrow 18 : 5$

So the amount in 50p will be

$207 \times 18 / 23$

$\Rightarrow 9 \times 18$

$\Rightarrow \text{Rs } 162$

So, the number of 50 p is $162 \times 2 = 324$

The number of 50p coins is 324

64. Answer: b

Explanation:

Given:

A man sold two TV sets for ₹7,200 each for neither gain nor loss.

If he sold one TV set at a loss of 10%

Concept used:

$$SP = CP + \text{profit}$$

$$\text{Profit percentage} = (\text{Profit} / \text{CP}) \times 100$$

Calculation:

The cost price of the TV which was sold at 10% loss is,

$$7200 \times 10 / 9 = \text{Rs } 8000$$

$$\text{Total SP} = 7200 + 7200$$

$$\Rightarrow \text{Rs } 14400$$

So the cost price of the other TV is $(14400 - 8000) = \text{Rs } 6400$

$$\text{Profit is } 7200 - 6400 = 800$$

$$\text{The profit percentage is } (800 / 6400) \times 100 = 100 / 8$$

$$\Rightarrow 12.5 \%$$

Then the other TV set is sold at a profit of $12 \frac{1}{2} \%$

★ Shortcut Trick

If Cp is 10 then Sp is 9

As per the question, value of 9 unit is 7200

So value of 10 unit = 8000

Total SP = 7200 + 7200

⇒ Rs 14400

So the cost price of the other TV is $(14400 - 8000) = \text{Rs } 6400$

Profit is $7200 - 6400 = 800$

The profit percentage is $(800 / 6400) \times 100 = 100 / 8$

⇒ 12.5 %

★ Additional Information

Profit is calculated on cost price and discount is calculated on marked price

65. Answer: a

Your Personal Exams Guide

Explanation:

Given:

A man sold three-fifth of his articles at a gain of 16% and the remaining at the cost price.

Concept used:

Gain percentage = $(\text{Profit} / \text{cost price}) \times 100$

Calculation:

Let total number of article be 50, and cost price of each article be Rs 100

Total cost price = 50×100

$\Rightarrow 5000$

So $\frac{3}{5}$ of total article = $50 \times \frac{3}{5}$

$\Rightarrow 30$

So, the selling price of 30 articles = 116×30

$\Rightarrow \text{Rs } 3480$

Remaining Article $50 - 30 = 20$

So, the selling price of the remaining 20 articles = 100×20

$\Rightarrow \text{Rs } 2000$

Total selling price is $3480 + 2000 = \text{Rs } 5480$

Total profit is $5480 - 5000 = \text{Rs } 480$

So profit percentage = $(480 / 5000) \times 100$

$\Rightarrow 48 / 5 \%$

$\Rightarrow 9 \frac{3}{5} \%$

The gain earned by him in the whole transaction is $9 \frac{3}{5} \%$

66. Answer: d

Explanation:

Given:

If $(x - 3)$ is the HCF of $x^2 - 5x + 6$ and $x^2 + mx + 12$

Concept used:

$(x - 3)$ is the HCF of $x^2 - 5x + 6$ and $x^2 + mx + 12$,

So $x^2 + mx + 12$ is divisible by $x - 3$

Calculation:

As per the question,

$$x - 3 = 0$$

$$\Rightarrow x = 3$$

Putting $x = 3$ in equation,

$$x^2 + mx + 12$$

$$\Rightarrow 9 + 3m + 12 = 0$$

$$\Rightarrow 3m = -21$$

$$\Rightarrow m = -7$$

$$\text{So, } m = -7$$

67. **Answer: a**

Your Personal Exams Guide

Explanation:

Concept used :

$$\text{Average} = \text{Sum} / \text{Total number}$$

Calculation:

The prime numbers between 20 and 50 is 23, 29, 31, 37, 41, 43, 47

Total number = 7

Sum of the prime numbers between 20 and 50 is = $23 + 29 + 31 + 37 + 41 + 43 + 47$

⇒ 251

So average = $251 / 7$

⇒ 35.857

So, the average is 35.857

68. Answer: c

Explanation:

Given:

In a restaurant, 40% of customers had a non-vegetarian lunch, 52% had a vegetarian lunch, and 20% had both types of lunches.

Formula used:

If customers had a non-vegetarian lunch is $a\%$, customers had a vegetarian lunch is $b\%$ and customers had both types of lunches is $c\%$

Then, did NOT eat either type of lunch = $100 - (a + b - c) \%$

Calculation:

As per the question,

Customers did NOT eat either type of lunch = $100 - (40 + 52 - 20)$

⇒ $100 - 72 = 28\%$

As per the question,

$100\% = 125$

So $28\% = (125 / 100) \times 28$

⇒ $(5 / 4) \times 28 = 35$

Customers did NOT eat either type of lunch is 35

69. Answer: c

Explanation:

Given:

Three numbers are in the ratio 2 : 3 : 5

The sum of their cubes is 34560.

Calculation:

Let one number is $2x$ then others are $3x$ and $5x$

As per the question,

$$(2x)^3 + (3x)^3 + (5x)^3 = 34560$$

$$\Rightarrow 8x^3 + 27x^3 + 125x^3 = 34560$$

$$\Rightarrow 160x^3 = 34560$$

$$\Rightarrow 16x^3 = 3456$$

$$\Rightarrow x^3 = 216$$

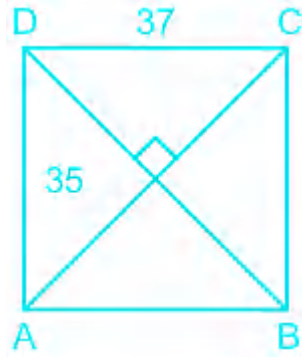
$$\Rightarrow x = 6$$

So the 2nd number is $3 \times 6 = 18$

70. Answer: c

Explanation:

Given:



The perimeter of a rhombus is 148 cm

And one of its diagonals is 70 cm.

Formula used:

The area of the rhombus = $(1 / 2) \times$ Multiplication of the two diagonals

Concept used:

The diagonals of a rhombus bisect each other at 90°

Calculation:

The side of the rhombus is $148 / 4 = 37$ cm

Half of the other diagonal is

$$\sqrt{\{(37)^2 - (35)^2\}} = \sqrt{144}$$

$$\Rightarrow 12 \text{ cm}$$

Other diagonal is $12 \times 2 = 24$ cm

So area is $1/2 (70 \times 24) = 840 \text{ cm}^2$.

The area of the rhombus is 840 cm^2

71. **Answer: a**

Explanation:

$$1/2 \left[\{-2(12 + 2)\}10 \right]$$

$$\Rightarrow 1/2 \left[\{-2 \times 14\}10 \right]$$

$$\Rightarrow 1/2 \left[\{-28\}10 \right]$$

$$\Rightarrow 1/2 \left[-280 \right]$$

$$\Rightarrow 1/2 \times \left[-280 \right]$$

$$\Rightarrow -140$$

The simplified value is -140

72. Answer: d

Explanation:

Given:

Ramu had borrowed Rs20,000 from a bank at simple interest,

And after 5 years he repaid an amount of Rs25,000 to the bank

concept used:

$$\text{Rate of interest} = (\text{Interest in 1 yr} / \text{Principal}) \times 100$$

Calculation:

$$\text{Simple interest earned in 5 years is Rs } (25,000 - 20,000) = \text{Rs } 5000$$

$$\text{Simple interest earned in 1 year is } 5000 / 5 = \text{Rs } 1000$$

$$\text{Rate of interest is } (1000 / 20000) \times 100 = 5\%$$

Rate of interest is 5%

★ Additional Information

$$\text{Simple interest} = (\text{Principal} \times \text{rate of interest} \times \text{time}) / 100$$

73. **Answer: c**

Explanation:

Given:

Rs 6,25,000 become Rs 8,31,875 at 10% per annum, compounded annually

Formula used:

In compound interest,

$$\text{Amount} = \text{Principal} \times (1 + r / 100)^n$$

Calculation:

Let, n is the number of years

As per the question,

$$8,31,875 = 62500 \times (1 + 10 / 100)^n .$$

$$\Rightarrow 8,31,875 / 62500 = (11 / 10)^n .$$

$$\Rightarrow 1331 / 1000 = (11 / 10)^n .$$

$$\Rightarrow (11 / 10)^3 = (11 / 10)^n .$$

So n = 3 years

So, the time will be 3 years

74. **Answer: c**

Explanation:

Given:

The number which when divided by 39, 52 and 60 leaves the remainders 30, 43 and 51

Concept used:

If the gap for each number is equal,

Then , the number = LCM - The equal gap

Calculation:

The gap for each number is $39 - 30 = 9$, $52 - 43 = 9$ and $60 - 51 = 9$

So, the LCM of 39, 52 and 60 is = 780

So the number should be

$$780 - 9 = 771$$

The number is 771

75. Answer: c

Explanation:

Given:

A man traveled a distance of 54 km in 4 hours, partly on foot at 6 km/h

And partly on a bicycle at 18 km/h.

Concept used:

$$\text{Distance} = \text{Speed} \times \text{Time}$$

Calculation:

Let distance traveled on foot be x km

As per the question,

$$x / 6 + (54 - x) / 18 = 4$$

$$\Rightarrow (3x + 54 - x) / 18 = 4$$

$$\Rightarrow 2x + 54 = 72$$

$$\Rightarrow x = 18 / 2$$

$$\Rightarrow x = 9 \text{ km}$$

The distance (in km) travelled on foot is 9 km

76. Answer: c

Explanation:

The solution is **Mechanical** .

★ Key Points

- The correct spelt word is **Mechanical**.
- **Mechanical**: Operated by a machine or machinery.
 - *For example: "A mechanical device."*
- **Mechanical** is an **Adjective** and a **Noun** .
- **Medallion** is a **Noun** .
- **Meddle** is a **Verb** .
- **Mediate** is an **Adjective** and a **Verb** .
- Therefore **option 3** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Medallion** - A piece of jewelry in the shape of a medal, worn as a pendant.
 - *For example: "He wore a medallion after winning the race."*
 - **Meddle** - Interfere in something that is not one's concern.
 - *For example: "I don't want her meddling in our work."*

- **Mediate** – Intervene in a dispute in order to bring about an agreement or reconciliation.
 - *For example: "Jack attempted to mediate between the power to end the fight."*

77. **Answer: a**

Explanation:

The solution is **Statute** .

★ Key Points

- The option that can be used as a one-word substitute for " *Written law passed by a law-making body*" is **Statute**.
- **Statute** – a rule of an organization or institution.
 - *For example: "The appointment will be subject to the **statutes** of the university."*
- **Statute** is a **Noun** .
- **Rule** is a Noun and a verb.
- **Summit** is a Noun and a verb .
- **Ordeal** is a Noun .

Therefore **option 1** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Rule** – Set of instructions.
 - *For example: "My school rules were very strict."*
 - **Summit** – The highest point of a hill or mountain.
 - *For example: "She climbed back up the path towards the summit."*
 - **Ordeal** – A very unpleasant and prolonged experience.
 - *For example: "The ordeal of having to give evidence."*

78. Answer: d

Explanation:

The solution is **whether** .

★ Key Points

- The most appropriate option to fill in the blank in "He asked me _____ I knew you." is **whether**.
- He asked me **whether** I knew you.
- **Whether** is a **conjunction**.
- Here the word **whether** is joining two sentences to form one sentence.
- **Whether** is used when someone is not sure of possibilities are true.
- Therefore **option 4** is the correct option.

★ Additional Information

Let's discuss conjunction:

- **Conjunction: A conjunction** is a word that is used to connect clauses or sentences or to coordinate words in the same clause.
- *For example: And, But, Also, Yet, So, Etc.*
 - We use –
 - **Unless:** We use unless to ' *except if*'.
 - **Although:** We use although when someone wants to sound formal.
 - **Since:** We use since when talking about time.
 - **Whether:** We use whether when someone does not know which of the two possibilities is true.

79. Answer: b

Explanation:

The solution is **jurisdiction** .

★ Key Points

- The most appropriate option to fill in the blank in "This case is limited to state _____." is jurisdiction.
- This case is limited to state jurisdiction .
- Jurisdiction is a **noun**.
- Jurisdiction – The official power to make legal decisions and judgements.
 - **Example:** "The English court had no jurisdiction over the defendants."
- Therefore **option 2** is the correct option.

★ Additional Information

- Let's discuss other options:
 - **Preparation** – The action or process of preparing or being prepared for use or consideration.
 - Example: "The preparation for the exam was going on."
 - **Radicalisation** – The action or process of causing someone to adopt radical positions on political or social issues.
 - Example: "The radicalisation of the intelligentsia led to the revolution."
 - **Ramification** – A complex or unwelcome consequence of an action or event.
 - Example: "Any changes are bound to have legal ramifications."

Your Personal Exams Guide

80. Answer: b

Explanation:

The solution is **Divya have little chance** .

★ Key Points

- The segment that contains a grammatical error is **Divya have little chance** .
- Divya **has** little chance of winning the gold medal this year.
- **Has** is used when pronouns like he, she, it, etc are used in a sentence.
- The sentence is about how Divya holds a chance of winning a gold medal this year. As Divya is a female, the pronoun she is used in the sentence.

Therefore **option 2** is the correct option.

★ Additional Information

- Let's discuss more information :
 - "Has" is a present tense term. It is used with **pronouns like he, she, it, who, and singular nouns.**
 - "Have" is a present tense term. It is used with **pronouns like you, we, they, them, and plural nouns.**

81. Answer: c

Explanation:

The solution is **Abandon** .

★ Key Points

- The most appropriate ANTONYM of " **Assert** " is **Abandon**.
 - **Assert** - State a fact or belief confidently and forcefully.
 - **Abandon** - Cease to support or look after someone or desert.
 - **Insist** - Demand something forcefully, not accepting refusal.
 - **Request** - An act of asking politely or formally for something.
 - **Urge** - Try earnestly or persistently to persuade (someone) to do something.
- Therefore **option 3** is the correct option.

★ Additional Information

- **Antonym** - Antonym is the opposite meaning of the given word.
 - Antonym of **Insist** is **give up**.
 - Antonym of **Request** is **order**.
 - Antonym of **Urge** is **discourage**.

82. Answer: d

Explanation:

The solution is **No improvement required** .

★ Key Points

- The option that will improve the underlined part of "The sun had set by the time we reached the hilltop." is **No improvement required** .
- The sentence contains no errors.
- " **Had** " is used in the ***past perfect tense***.
- The past perfect tense is used to express things that occur before another event or action in the past.
- Therefore **option 4** is the correct option.

★ Additional Information

- The sentence contains no improvement.
- **Present tense** – It is used to talk about the present.
- **Future tense** – It is used to talk about a future activity or a future state of being.
- **Past tense** – It is used to talk about a past activity or a past state of being.

83. Answer: c

Explanation:

The solution is **Retire from a sport** .

★ Key Points

- The most appropriate meaning of "Hang up one's boots" is **to r etire** from a sport .
- **Idioms** are used to say many things with just a few words.
- Therefore **option 3** is the correct option.

★ Additional Information

- **Idioms:** It is a phrase or expression that has a figurative, or sometimes literal meaning.
- Let's discuss idioms of other options:
 - **Challenge someone** - To dare someone to participate in something.
 - **Tease an opponent** - To provoke the opponent.
 - **Show disrespect** - Lack of respect or courteous regard.

84. Answer: a

Explanation:

The solution is **exiled** .

★ Key Points

- The most appropriate option to fill in the blank in " *He was _____ from Turkey for his public condemnation of the Shah.* " is **exiled**.
- He was **exiled** from Turkey for his public condemnation of the Shah.
- **Exiled** is an adjective.
- **Exiled** - A person having been expelled and barred from one's native country, typically for political or punitive reasons.
 - *For example: "Supporters of the exiled emperor."*
- Therefore **option 1** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Evacuated** - Remove someone from a place of danger to a safer place.
 - *For example:- "Several families were evacuated from their villages."*
 - **Excluded** - Deny someone access to a place, group, or privilege.
 - *For example:- "They excluded us from the dinner party."*
 - **Escaped** - Having broken free from confinement or control.
 - *For example:- "We escaped from a family function."*

85. Answer: d

Explanation:

The solution is **believe in you**.

★ Key Points

- The segment that contains a grammatical error in "If you want to win the race, you need to believe in you." is **believe in you**.
- The sentence contains an error. Here, **yourself** should be used in the sentence to form a grammatically correct sentence.
- Therefore **option 4** is the correct option.

★ Additional Information

- The correct sentence formed will be "*If you want to win the race you need to believe in yourself.*"

86. Answer: d

Explanation:

The solution is **Generally speaking** .

★ Key Points

- The most appropriate option that can substitute the underlined segment in "General speaking, the great discoverers were people with great courage." is **Generally speaking** .
- **Generally speaking**, the great discoverers were people with great courage.
- Here the word **General** is incorrect and the correct word is **Generally** .
- Therefore **option 4** is the correct option.

★ Additional Information

- *Generally speaking*, is an *adverb*.
- **Adverb** – A word or a phrase that modifies or qualifies an adjective, or another adverb, or a group of words expressing a relation of place, time, etc.

87. Answer: a

Explanation:

The solution is **Completely unexpected**.

★ Key Points

- The most appropriate meaning of the given idiom "Out of the blue" is Completely unexpected.
- Let's see information about other options:
 - Always dressing up in blue clothes – Indicates freshness, peace, and loyalty.
 - For example: "The women always dress up in blue clothes."
 - Caught in a fight – A situation between two or more sides in an argument issue, often leaving one without a clear course of action to satisfy either side.
 - For example: "They caught in a fight."
 - Coming out of a blue box – To happen unexpectedly.
 - For example: "He came out of a blue box on my birthday."
- Therefore **option 1** is the correct option.

★ Additional Information

- Let's discuss *idioms*:
- A group of words established by usage as having a meaning not deducible from those of the individual words.
- For example:-
 - **On cloud nine** – Being very happy.
 - **Get your act together** – Get organized and do things effectively.
 - **Back against the wall** – Stuck in a difficult circumstance with no escape.

88. Answer: a

Explanation:

The solution is **Examine** .

★ Key Points

- The most appropriate synonym of the given word "Investigate" is Examine.
- **Investigate** - Carry out a systematic or formal inquiry to discover and examine the facts of an incident, allegation, etc. so as to establish the truth.
 - For example: "The police **investigated** the murder for one month."
- **Examine** - Inspect someone or something thoroughly in order to determine its nature or condition.
 - For example: "The doctors **examined** the body."
- Therefore **option 1** is the correct option.

★ Additional Information

- Let's discuss information about other options:-
 - **Relate** - Make or show a connection between.
 - For example: "They all are related to each other."
 - **Calculate** - Determine the amount or number of something mathematically.
 - For example: "Sam created a calculated program to run a game."
 - **Supervise** - Observe and direct the execution of a task or activity.
 - For example: "The teachers supervised during the exams."

89. Answer: b

Explanation:

The solution is **Entomology** .

★ Key Points

- The option that can be used as a one-word substitute for "Study of insects" is Entomology.
- Entomology - The branch of zoology concerned with the study of insects.
- Entomology is crucial to understand human diseases, agriculture, evolution, ecology, and biodiversity.
- Therefore **option 2** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Ornithology** - The scientific study of birds.
 - **Geology** - The science that deals with the earth's physical structure and substance, its history, and the processes that act on it.
 - **Terminology**- The body of terms used with a particular technical application in a subject of study, profession, etc.

90. **Answer: a**

Explanation:

The solution is **all the works** .

★ Key Points

- The segment that contains a grammatical error in "The manager told the staff to complete all the works before going home." is **all the works** .
- Here **work** s is the incorrect word used in the sentence.
- The singular form of **work** should be used to form a meaningful sentence.
- The manager told the staff to complete **all the work** before going home.
- Therefore **option 1** is the correct option.

★ Additional Information

- The correct sentence formed will be " *The manager told the staff to complete **all the work** before going home.*"

- The grammatical error in the sentence was **work** used in plural form.
-

91. Answer: b

Explanation:

The solution is **Procastination** .

★ Key Points

- The INCORRECTLY spelt word is Procastination.
- The correct spelt word is Procrastination.
- Procrastination - The action of delaying or postponing something.
 - *For example: "They procrastinated the flight."*
- Therefore **option 2** is the correct option.

★ Additional Information

- Let's discuss information about other options:-
 - **Alliteration** - The occurrence of the same letter or sound at the beginning of adjacent or closely connected words.
 - *For example: "The alliteration of singing birds."*
 - **Hallucination** - An experience in which you see, hear, feel, or smell something that does not exist.
 - *For example: "Sometimes she hallucinates ghosts."*
 - **Superintendent** - A person who manages or superintends an organization or activity.
 - *For example: "Superintendent of district nurses."*

92. Answer: b

Explanation:

The solution is **Construct** .

★ Key Points

- The most appropriate ANTONYM of " **Demolish** " is Construct.
 - **Demolish** – Pull or knock down a building.
 - **Construct** – Build or make something, typically a building, road, or machine.
 - Divide – Separate or be separated into parts.
 - Diminish – Make or become less.
 - Destroy – End the existence of something by damaging or attacking it.
- Therefore **option 2** is the correct option.

★ Additional Information

- Antonym – Antonym is the opposite meaning of the given word.
 - Antonym of **Divide** is join.
 - Antonym of **Diminish** is increase.
 - Antonym of **Destroy** is built.

93. Answer: d

Explanation:

The solution is **Clear**.

★ Key Points

- The most appropriate synonym of "Obvious" is Clear.
- **Obvious** – Easily perceived or understood; clear, self-evident, or apparent.
 - *For example: "The answer to his question was very obvious."*
- Clear – Easy to perceive, understand or interpret.
 - *For example: "The maps showed clear and precise directions."*
- Therefore **option 4** is the correct option.

★ Additional Information

- Let's discuss information about other options:

- **Thick** – Having or being of relatively great depth or extent from one surface to its opposite heavily built.
 - *For example: "The milkshake was thick in consistency."*
- **Dull** – Lacking interest or excitement .
 - *For example: "The college dulled everyone's life."*
- **Vague** – Of uncertain, indefinite, or unclear character or meaning.
 - *For example: "Many patients suffer vague symptoms."*

94. Answer: d

Explanation:

The solution is **Optimist** .

★ Key Points

- The option that can be used as a one-word substitute for "A person who tends to be hopeful and confident about the future or the success of something" is Optimist.
 - *For example: Only an eternal **optimist** could expect success.*
- Therefore **option 4** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Fanatic** – A person filled with excessive and single-minded zeal, especially for an extreme religious or political cause.
 - **Pessimist** – A person who tends to see the worst aspect of things or believes that the worst will happen.
 - **Opportunist** – A person who takes advantage of opportunities as and when they arise, regardless of planning or principle.

95. Answer: d

Explanation:

The answer is **can he**.

★ Key Points

- The option that will improve the underlined part of "Your brother can't drive, is it?" is **can he**.
- Your brother can't drive, **can he?**
- An interrogative sentence is a type of sentence that asks a question, as opposed to sentences that make a statement, deliver a command, or express an exclamation.
- Therefore **option 4** is the correct option.

★ Additional Information

- The above sentence is an interrogative sentence.
- There are four types of sentences:
 - **Declarative** - In this type of sentence, basic information is given.
 - **Exclamatory** - In this type of sentence exclamatory mark is used.
 - **Imperative** - In this type of sentence, demand or instruction is given.
 - **Interrogative** - In this type of sentence question mark is used.

Your Personal Exams Guide

96. Answer: d

Explanation:

The solution is **by** .

★ Key Points

- The most appropriate option to fill in blank no.1 "You will be quite surprised to know that the first telescope was made in the seventeenth century by Galileo." is
- You will be quite surprised to know that the first telescope was made in the seventeenth century by Galileo.

- Preposition – A preposition is a word or phrase used to show the position of an object or someone.
 - *For example: Through, at, in, onto, etc.*
- A **preposition** is used with **its objects** .
- Therefore **option 4** is the correct option.

★ Additional Information

- The options given above are prepositions.
- Preposition – A preposition is a word or phrase used to show the position of an object or someone.
 - *For example: Through, at, in, onto, etc.*

97. Answer: c

Explanation:

The solution is **highest** .

★ Key Points

- The most appropriate option to fill in blank no.2 " It was fitted on top of the (2)_____ hill of Venice." is **highest**.
- It was fitted on top of the **highest** hill of Venice.
- Superlative degrees are, *for example, Good, Better, Best.*
- Therefore **option 3** is the correct option.

★ Additional Information

- The options given above are the superlative degree of **high** .

Positive	Comparative	Superlative
bad	worse	worst
badly	worse	worst
far (distance)	farther	farthest
far	further	furthest
good	better	best
ill	worse	worst
late	later	later or latest
little (amount)	less	least
many	more	most
much	more	most
some	more	most
well	better	best

98. Answer: a

Your Personal Exams Guide

Explanation:

The solution is **climbed**.

★ Key Points

- The most appropriate option to fill in blank no.3, "Large crowds daily (3)_____ up the hill to see through (4)_____ telescope." is **climbed**.
- Large crowds daily **climbed** up the hill to see through (4)_____ telescope.
- Here, the word **climbed** is used because the action that was done is in the past, so the past form of **climbed** is used.
- Therefore **option 1** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Paused** – Interrupt action or speech briefly.
 - **Backed** – Give financial, material, or moral support to.
 - **Watched** – Look at or observe attentively over a period of time.
-

99. Answer: a

Explanation:

The solution is **the** .

★ Key Points

- The most appropriate option to fill in blank no.4, " Large crowds daily (3)_____ up the hill to see through (4)_____ telescope." is the.
- Large crowds daily climbed up the hill to see through the telescope.
- Articles are used before nouns. We use **the** when referring to something specific and **A** and **An** when referring to something in general.
- Therefore **option 1** is the correct option.

★ Additional Information

- The above-given options contain **articles**.

Articles

An article is a word that comes before a noun.



the boy



a bee



an apple

a - use before a word that has a consonant sound

an - use before a word that has a vowel sound

the - use before a specific person, place, or thing

100. Answer: b

Explanation:

The solution is **wondered** .

★ Key Points

- The most appropriate option to fill in blank no.5, "They looked at the planets and (5)_____ at what they saw." is **wondered**.
- They looked at the planets and **wondered** what they saw.
- Here the word **wondered** is used because the action was done in the past.
- Therefore **option 2** is the correct option.

★ Additional Information

- Let's discuss information about other options:
 - **Stunned** - So shocked that one is temporarily unable to react; astonished.
 - **Surprised** - Feeling or showing surprise.
 - **Shocked** - Surprised and upset.

Your Personal Exams Guide