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	BPSC	UPTET
IBPS RRB	IBPS CLERK	IES	UPSC CAPF
SSC Stenogr..	RRB NTPC	SSC GD	RBI GRADE B
RBI Assistant	DSSSB		

SSC MTS Previous Year Paper (Held on: 21 July 2022 Shift 2)

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 & Reasoning	25	25	0.25	1
2	Numerical Aptitude	25	25	0.25	1
3	General English	25	25	0.25	1
4	General Awareness	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 & Reasoning

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

   (+1, -0.25)

   79, 81, 84, 89, 96, ?

   a. 106

   b. 109

   c. 107

   d. 105

---

2. Six boys A, B, C, D, E, and F are sitting in a straight row facing north (not necessarily in the same order). B sits second to the right of D. A sits fourth to the left of F. F is not sitting on the extreme ends of the row. C sits second to the right of B. Who sits second to the right of A?

   (+1, -0.25)

   a. F

   b. E

   c. B

   d. D

---

3. Among five friends A, B, C, D and E, C is older than only one friend. E is older than D. Only two persons are older than D. B is older than E. Who is the youngest among all the friends?

   (+1, -0.25)

   a. D

   b. E

c. C

d. A

---

4. Select the option in which the pair of letter-clusters share the same relationship as that shared by the given pair of letter-clusters.   **(+1, -0.25)**

   LAB : BAL : : ?

   a. ONM : MNO

   b. PIN : INP

   c. GRB : GRB

   d. TOM : MTO

---

5. In a certain code language, 'FRIGHT' is coded as '860432', and 'HEAR' is coded as '3156'. How will 'EAFT' be coded in that language?   **(+1, -0.25)**

   a. 1568

   b. 1582

   c. 1528

   d. 1584

---

6. 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 snakes are ants.

No ant is a lizard.

Conclusions:

I: Some ants are snakes.

II: Some snakes are lizards.

a. Only I follows

b. Both I and II follow

c. Only II follows

d. Neither I nor II follows

---

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

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

53 : 35 : : 37 : 73 : : 24 : ?

a. 44

b. 54

c. 42

d. 22

8. Which two signs need to be interchanged to make the following equation correct?   (+1, -0.25)

2 + 5 − 3 × 6 ÷ 2 = 14
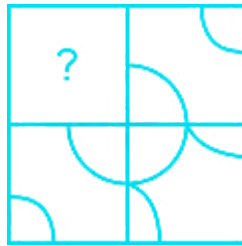
a. + and ÷

b. × and ÷

c. and ×

d. + and ×

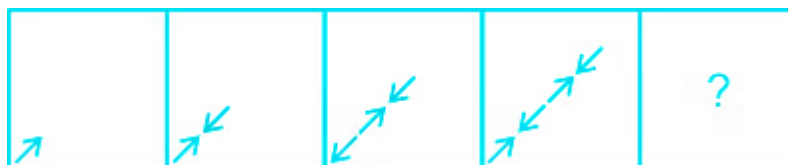9. Select the option figure in which the given figure is embedded (rotation is NOT allowed.)   (+1, -0.25)
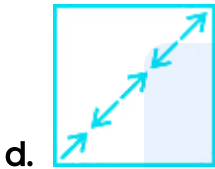

a.

b.

c.

d.

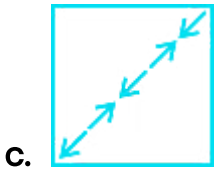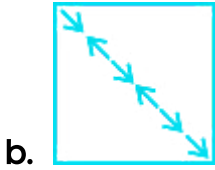10. Select the figure from the options that can replace the question mark (?) and complete the pattern.   (+1, −0.25)

a.

b.

c.

d.

---

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

a.

b.

c.

d.
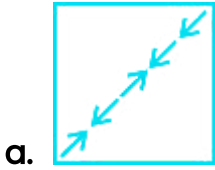
12. Select the correct mirror image of the given figure when the mirror is placed at MN as shown below. (+1, −0.25)

a.

b.

c.

d.

13. Select the figure from among the given options that can replace the question mark (?) in the following series.

(+1, −0.25)

a.

b.

c.

d.

---

14. Six students, Aryan, Shreya, Arshit, Puneet, Kaushal and Harsh, are sitting around a circular table facing the centre (but not necessarily in the same order). Shreya is sitting second to the right of Puneet. Arshit and Harsh are not the immediate neighbours of Shreya. Puneet is third to the right of Aryan. Harsh is sitting second to the left of Kaushal.

(+1, −0.25)

Who is the immediate neighbour of Shreya and Puneet?

a. Aryan

b. Harsh

c. Kaushal

d. Arshit

---

15. In a certain code language, 'TRICAD' is written as 'FBEJTU', and 'OPQSBG' is written as 'ICURRP'. How will 'ABKLMN' be written in that language? **(+1, −0.25)**

   a. PNMLOB

   b. PNNLDB

   c. PNNKDB

   d. PMMLDB

---

16. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. **(+1, −0.25)**

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

   133 : 666 :: 157 : 786 :: 221 : ?

   a. 1106

   b. 1108

   c. 1105

   d. 1104

---

17. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.

    (+1, -0.25)

RAT, UEY, XID, ?, DQN

   a. AMI

   b. ANI

   c. ANJ

   d. AMJ

---

18. In a certain code language, 'LOWER' is coded as '37', and 'OVER' is coded as '06'. How will 'MELON' be coded in that code language?

    (+1, -0.25)

   a. 95

   b. 28

   c. 82

   d. 59

---

19. 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:

No phone is mobile.

Some mobiles are telephones.

Conclusions:

I. All phones being telephones is a possibility.

II. Some telephones are not mobiles.

   a. Only conclusion II follows.

   b. Only conclusion I follows.

   c. Neither conclusion I nor II follows.

   d. Both conclusions I and II follow.

---

20. Which two signs and two numbers (NOT digits) need to be interchanged   (+1, -0.25)
    to make the given equation correct?

    $16 + 15 - 25 \times 4 \div 5 = 20$

       a. × and ÷ , 16 and 25

       b. + and −, 4 and 25

       c. × and ÷ , 16 and 4

       d. and × , 15 and 25

---

21. In a certain code language, 'CHILDREN' is written as 'OFSEMJID', 'CURTAIN' is   (+1, -0.25)
    written as 'OJBUSVD', and 'LIQUID' is written as 'EJVRJM'. How will
    'PERFORMANCE' be written in that language?

       a. QFSGPSNBODF

       b. FDBONPSGFQ

c. PQFRPMSADFE

d. FDOBNSPGSFQ

---

22. Select the option that is related to the fifth word in the same way as the second word is related to the first word and the fourth word is related to the third word.

(+1, -0.25)

Year : Month :: Week : Day :: Minute : ?

a. Leap year

b. Fortnight

c. Hour

d. Second

---

23. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.

(+1, -0.25)

GAME : IWSW :: HOPE : JKVW :: SOLO : ?

a. UKRG

b. UKRF

c. UKSG

d. UKRH

---

24. 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

(+1, -0.25)

this paper look when unfolded?

a.

b.

c.

d.

---
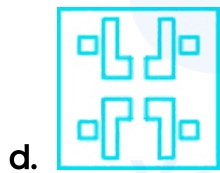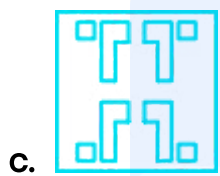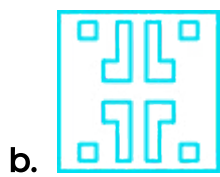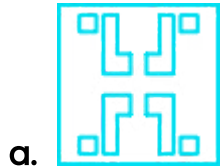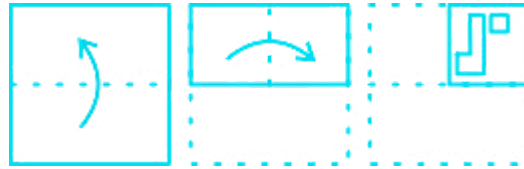
25. Select the set in which the numbers are related in the same way as are the numbers of the following sets.   (+1, -0.25)

(30, 14, 8)

(84, 12, 36)

a. (108, 18, 45)

b. (68, 14, 49)

c. (21, 28, 11)

d. $(24, 8, 10)$

Numerical Aptitude

26. What is the value of $\frac{84 \div 12 \times 3 - 4 \div 12 \times 9 + 5 \times 6 - 2 \times 3}{8 \div 12 \times 3}$?   (+1, −0.25)

   a. 25

   b. 21

   c. 24

   d. 18

---

27. The cost price of two fans is the same. One fan is sold at a loss of 20% and   (+1, −0.25)
   the other fan is sold at loss of 60%. What will be the overall loss
   percentage?

   a. 40%

   b. 38%

   c. 25%

   d. 35%

---

28. Three numbers are in the ratio of $2 : 3 : 5$. The sum of these three numbers   (+1, −0.25)
   is 80. What is the product of these three numbers?

   a. 13200

   b. 15360

   c. 14400

   d. 15630

29. The following pie chart shows the sectors representing the shares of the number of lights manufactured in a given year by each of six different factories in terms of the central angles (in degrees) with respect to the total number of lights manufactured in that year by all the six factories taken together.   **(+1, -0.25)**
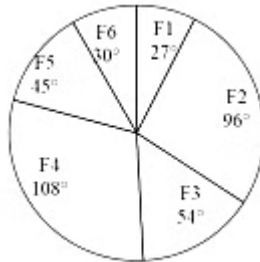
If the total number of lights manufactured in that year by the 6 factories taken together is 1840, then what is the difference between the numbers of lights manufactured by F5 and F1?

a. 96

b. 94

c. 90

d. 92

---

30. What is the greatest number of 4-digits which is divisible by 45, 25 and 5?   **(+1, -0.25)**

a. 9000

b. 9990

c. 8900

d. 9900

---

31. The length of a cuboidal room is 56 m, its breadth is 34 m and its height is 8 m. Find the length of the longest ladder that can be placed in the room. **(+1, −0.25)**

   a. 66 m

   b. 58 m

   c. 42 m

   d. 33 m

---

32. The total surface area of a closed hemisphere is 4158 cm^2. What is the diameter of the hemisphere? $\left[\text{Use } \pi = \frac{22}{7}\right]$ **(+1, −0.25)**

   a. 14 cm

   b. 28 cm

   c. 42 cm

   d. 21 cm

---

33. What is the rate of compound interest, if the interest on ₹10,000 for 2 years is ₹609, when interest is compounded annually? **(+1, −0.25)**

   a. 3% per annum

   b. 4% per annum

   c. 2% per annum

   d. 5% per annum

34. The total surface area of a closed cube is 1350 cm ^{2}. What is the length of each side of this cube?   **(+1, −0.25)**

    a. 21 cm

    b. 20 cm

    c. 15 cm

    d. 18 cm

---

35. Due to reduction in workforce, the production in a factory decreases by 30%. By what percentage should the working hours per person be increased to restore the original production? (Correct to two decimal places.)   **(+1, −0.25)**

    a. 43.35%

    b. 42.86%

    c. 37.75%

    d. 40%

---

36. If $\frac{3 \times 7 + 12}{12 \times 7 + 3 \times 4 - 2} = \frac{1}{K}$, then what is the value of K?   **(+1, −0.25)**

    a. $\frac{95}{32}$

    b. $\frac{94}{33}$

    c. $\frac{96}{47}$

    d. $\frac{92}{35}$

---

37. A thief escapes custody at 10 a.m. He runs at a speed of 40 km/h. The policeman starts chasing the thief at 11:30 a.m., starting from the point from where the thief escaped custody. The speed of the policeman is 60 km/h. At what time will he catch the thief?   **(+1, −0.25)**

   a. 2:45 p.m.

   b. 2:00 p.m.

   c. 2:15 p.m.

   d. 2:30 p.m.

38. David purchased an item and marked his price up by 10%. He sold the same item by giving a discount of 5% and he made a profit of ₹12.87. What is the actual cost price of the item?   **(+1, −0.25)**

   a. ₹220

   b. ₹280

   c. ₹286

   d. ₹256

39. Pipe A can fill an empty cistern in 6 hours and pipe B can fill the same empty cistern in 8 hours. Both the pipes are opened simultaneously but after two hours, pipe A is closed. How many hours will B take to fill the remaining part of the cistern?   **(+1, −0.25)**

   a. 2

   b. $3\frac{1}{3}$

c. $3\frac{2}{3}$

d. 4

---

40. Two numbers are, respectively, 20% and 10% more than a third number. The ratio of the first number to the second, is:

(+1, -0.25)

a. 11 : 12

b. 12 : 12

c. 13 : 11

d. 12 : 11

---

41. What is the average of the first 14 positive even numbers?

(+1, -0.25)

a. 16

b. 14

c. 15

d. 14.5

---

42. The sum of the simple interest and the compound interest on ₹5,600 at the same rate of interest per annum for two years is ₹2,061.36, when in the case of compound interest, it is compounded annually. What is the rate of interest per annum?

(+1, -0.25)

a. 9%

b. 6%

c. 15%

d. 12%

---

43. Anil buys a motorcycle for ₹84,000 and sells it at a loss of 12%. What is the selling price of the motorcycle?   (+1, -0.25)

a. ₹80,000

b. ₹68,852

c. ₹78,520

d. ₹73,920

---

44. In what ratio, should rice at ₹60 per kg be mixed with rice at ₹42 per kg such that by selling the mixture at ₹56 per kg there is a gain of 12%?   (+1, -0.25)

a. 4 : 5

b. 6 : 7

c. 2 : 3

d. 2 : 5

---

45. The present average age of Rachel and Ross is 34 years. Find the average age of Ross and Rachel after 6 years.   (+1, -0.25)

a. 45 years

b. 38 years

c. 36 years

d. 40 years

---

46. The following table shows the marks scored by five different students in three subjects.

(+1, -0.25)

| Marks	English	Hindi	Maths
Rahul	85	85	46
Shreya	89	95	58
Seema	45	75	68
Mohan	33	99	87
Krish	85	84	98

Find the average of Rahul's marks in the three given subjects.

a. 74

b. 71

c. 72

d. 73

---

47. Arshi can do a piece of work in 30 days, while Ahan can complete it in 20 days. Both together labour for 4 days and afterwards Ahan leaves. How long will Arshi take to complete the remaining work? (+1, −0.25)

 a. 10 days

 b. 15 days

 c. 25 days

 d. 20 days

48. A person crosses a 500 m long street in 5 minutes. What is his speed in km/h? (+1, −0.25)

 a. 5

 b. 4

 c. 6

 d. 7

49. Study the given bar-graph and answer the question that follows. The bar-graph shows the sales of six different brands of blue and green pens in a town on a given day. (+1, −0.25)
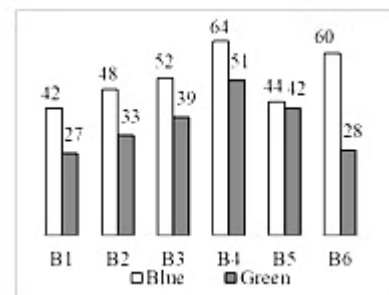
The total number of blue pens sold on that day of all the six brands taken together is how much percentage more than the total number of green pens sold on that day of all the six brands taken together? [Give your answer correct to 1 decimal place.]

a. 46.5%

b. 40.9%

c. 44.7%

d. 47.5%

50. If the monthly salary of Rahul is ₹3,00,000 and his salary gets increased by 15% in the next month, then what will be his salary after the increase of 15%? **(+1, -0.25)**

a. ₹4,50,000

b. ₹3,45,000

c. ₹3,55,500

d. ₹4,00,000

General English

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

    Hold the fort

    a. To stop talking about something

    b. To avoid being found guilty of a crime

    c. To finish something before time

    d. To take responsibility for a situation temporarily

---

52. The following sentence has been divided into parts. One of them may　　　(+1, -0.25)
    contain an error. Select the part that contains the error from the given
    options. If you don't find any error, mark 'No error' as your answer.

    Writing down your thoughts / can has immense positive / effects on your
    health.

    a. effects on your health

    b. No error

    c. can has immense positive

    d. Writing down your thoughts

---

53. Select the most appropriate ANTONYM of the underlined word in the　　　(+1, -0.25)
    given sentence.

    It will have <u>detrimental</u> effects on the healing process.

    a. Insidious

b. Nasty

c. Benign

d. Baneful

---

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

Culpable

a. Guilty

b. Irresponsible

c. Immune

d. innocent

---

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

The mystery behind the extinction of the dinosaurs _____ obscure.

a. is still

b. are still

c. be still

d. being still

---

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

Cryptic

a. Cloudy

b. Mystical

c. Fuzzy

d. Definite

---

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

   A place where bees are kept

   a. Archive

   b. Hangar

   c. Apiary

   d. Granary

---

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

   I think I have left _____ lunchbox at your house.

   a. I

   b. my

   c. me

   d. mine

---

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

   The lottery is a regular weekly _____ where the drawing of the numbers is done by a little girl.

a. instalment

b. irritant

c. theory

d. recreation

---

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

_____ Paul and Jenny are waiting for you in their office.

a. Any

b. Either

c. All

d. Both

---

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

Anita looked _____ the word in the dictionary, but she still did not understand it.

a. to

b. up

c. from

d. after

---

62. Parts of the following sentence have been given as options. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

Foods turn brown and crispy when we cook them because for chemical reactions.

   a. Foods turn brown and crispy

   b. No error

   c. because for chemical reactions

   d. when we cook them

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

One who does a thing for pleasure and not as a profession

   a. Amateur

   b. Ascetic

   c. Abattoir

   d. Anarchist

64. The following sentence has been divided into parts. One of them may contain an error. Select the part that contains the error from the given options. If you don't find any error, mark 'No error' as your answer. (+1, -0.25)

Kangaroo leather is used to make items / that must be strong and flexible hence it is most / common used in bullwhips.

a. Kangaroo leather is used to make items

b. that must be strong and flexible hence it is most

c. common used in bullwhips

d. No error

---

65. Select the most appropriate synonym of the underlined word in the given sentence.   (+1, −0.25)

He was quick in his anger, but easily <u>appeased</u>.

a. unsatisfied

b. bugged

c. dejected

d. pacified

---

66. Select the correctly spelt word.   (+1, −0.25)

a. Sacrifise

b. Sacrifice

c. Scarifice

d. Sacrefice

---

67. 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)

Neither of the political parties have had much interest in environmental causes.

a. No improvement required

b. Neither of the political parties have had any

c. Neither of the political parties have much

d. Neither of the political parties has had much

---

68. Select the most appropriate meaning of the underlined idiom in the given sentence.   (+1, -0.25)

This Louis Vuitton bag costed me an arm and a leg.

a. is very expensive

b. is very cheap

c. has no warranty

d. is a fake product

---

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

Her _ _ _ _ _ _ of smell is wonderful.

a. sacks

b. sense

c. science

d. census

---

70. Select the option that rectifies the incorrectly spelt words in the given sentence.   (+1, −0.25)

Let us prepare for the upcomng comptitive exams.

   a. Let us prepare for the upcomming competive exams.

   b. Let us prepare for the upcoming compititive exams.

   c. Let us prepare for the upcomming competitive exams.

   d. Let us prepare for the upcoming competitive exams.

---

71. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.   (+1, −0.25)

One of the most basic (1) _ _ _ _ _ _ of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _but one thing that all kinds of crops need (3) _ _ _ _ _ _an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.

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

   a. needed

   b. needer

   c. needful

   d. needs

---

72. In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each   (+1, −0.25)

blank.

One of the most basic (1) _ _ _ _ _ _ of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _but one thing that all kinds of crops need (3) _ _ _ _ _ _an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.

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

a. weather

b. report

c. conditions

d. terms

---

73. **In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.** (+1, -0.25)

One of the most basic (1) _ _ _ _ _ _ of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _but one thing that all kinds of crops need (3) _ _ _ _ _ _an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.

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

a. with

b. above

c. without

d. over

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

(+1, -0.25)

One of the most basic (1) _ _ _ _ _ _ of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _but one thing that all kinds of crops need (3) _ _ _ _ _ _an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.

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

a. then

b. that

c. what

d. when

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

(+1, -0.25)

One of the most basic (1) _ _ _ _ _ _ of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _but one thing that all kinds of crops need (3) _ _ _ _ _ _an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.

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

a. been

b. be

c. is

d. are

General Awareness

76. The practice of erecting megaliths began about _____ years ago.   (+1, -0.25)

    a. 2500

    b. 1000

    c. 1500

    d. 3000

77. As of April 2022, which neighbouring country of India shares an   (+1, -0.25)
    international boundary with Ladakh?

    a. Myanmar

    b. Bhutan

    c. Nepal

    d. Pakistan

78. Which of the following is a temperate grassland in Russia?   (+1, -0.25)

    a. Amazon

    b. Prairies

    c. Congo

    d. Steppes

79. Who won the National Nritya Shiromani award 2022?   (+1, -0.25)

a. Aparna Satheesan

b. Bhavana Reddy

c. Vyjayanthi Kashi

d. Yamini Krishnamurthy

---

80. Which of the following types of plant is a seed bearing plant?   (+1, −0.25)

   a. Thallophyta

   b. Gymnosperm

   c. Pteridophyta

   d. Bryophyta

---

81. Who was the ruler of Mysore in 1761?   (+1, −0.25)

   a. Baji Rao

   b. Murshild Quli Jafar Khan

   c. Hyder Ali

   d. Nizam-ul-Mulk

---

82. Who was the accused in the murder of Saunders in 1928?   (+1, −0.25)

   a. Bhagat Singh

   b. Aurobindo Ghosh

c. Madan Lal Dhingra

d. Basant Kumar

---

83. Which chemical element does 'Fe' stand for in the science periodic table? **(+1, −0.25)**

a. Fluorine

b. Oxygen

c. Fermium

d. Iron

---

84. Chitti Babu is associated with which musical instrument? **(+1, −0.25)**

a. Veena

b. Santoor

c. Guitar

d. Sitar

---

85. The first railway line was from _ _ _ _ _ _ to _ _ _ _ _ _ in India in 1853. **(+1, −0.25)**

a. Mumbai to Delhi

b. Delhi to Kanyakumari

c. Chennai to Nagpur

d. Mumbai to Thane

---

86. 'The Test of My Life' is the autobiography of which of the following persons? (+1, −0.25)

    a. Yuvraj Singh

    b. Ashish Nehra

    c. Zaheer Khan

    d. Mohammad Kaif

---

87. Who among the following Indian players is also known as 'Dhing Express'? (+1, −0.25)

    a. Neeraj Chopra

    b. Dutee Chand

    c. Hima Das

    d. PT Usha

---

88. Who became UNDP India's First Youth Climate Champion? (+1, −0.25)

    a. Prajakta Koli

    b. Ananya Pandey

    c. Amit Bhadana

    d. Bhuvan Bam

---

89. Indian constitution borrowed a cabinet form of governance from _____. (+1, −0.25)

   a. South Africa

   b. United Kingdom

   c. France

   d. Australia

---

90. Which of the following is correct about Nagara or North Indian Temple Style Architecture?   **(+1, -0.25)**

   a. The garbhagriha is always located directly under the tallest tower.

   b. It has elaborate boundary walls.

   c. There was no Kalasha, the topmost part of the temple.

   d. There were no tower or shikhara.

---

91. Who defeated Prithviraj Chauhan in the second battle of Tarain in 1192 AD?   **(+1, -0.25)**

   a. Babur

   b. Iltutmish

   c. Muhammad Ghori

   d. Alauddin Khalji

---

92. Who among the following was the minister of Agriculture and Farmer's Welfare when the Farm Laws Repeal Bill, 2021 was passed in the Indian Parliament?   **(+1, -0.25)**

   a. Raj Nath Singh

b. Narendra Singh Tomar

c. Amit Shah

d. Dharmendra Pradhan

---

93. The period between prorogation of Parliament and re-assembly in a new session is called _____.   **(+1, −0.25)**

    a. adjournment

    b. recess

    c. dissolution

    d. cut motion

---

94. What is the distance between the stumps and the popping crease at the same end of a Cricket pitch?   **(+1, −0.25)**

    a. 1.62 m

    b. 1.34 m

    c. 1.22 m

    d. 1.50 m

---

95. In which of the following states of India is the Dree festival celebrated?   **(+1, −0.25)**

    a. Arunachal Pradesh

    b. Assam

   c. Nagaland

   d. Manipur

---

96. What is the year whose prices are used to calculate the real GDP called?   (+1, -0.25)

   a. Fiscal year

   b. Base year

   c. Financial year

   d. Common year

---

97. Which rivers meet at Devprayag?   (+1, -0.25)

   a. Brahmaputra and Subansiri

   b. Beas and Satluj

   c. Bhagirathi and Alaknanda

   d. Chenab and Jhelum

---

98. For the purpose of Census 2011, a person aged _ _ _ _ _ _ and above, who   (+1, -0.25)
    can both read and write with understanding in any language, was
    treated as literate.

   a. five

   b. nine

   c. seven

d. six

---

99. A balanced diet should meet the RDAs for an individual. State the full form of RDA.   **(+1, -0.25)**

a. Request Diet Allowances

b. Recommended Dietary Allowances

c. Request Dietary Allowances

d. Recommend Diet Allowances

---

100. The famous actor Hema Malini is a trained _ _ _ _ _ _ dancer.   **(+1, -0.25)**

a. Bharatanatyam

b. Odissi

c. Lavani

d. Kuchipudi

Answers

1. **Answer: c**

   Explanation:

   The correct answer is option 3, i.e., 107.

   According to the given information, the series is given as 79, 81, 84, 89, 96,...

   Now, the first term of the series is 79 and the second term of the series is 81.

   Difference between the 2 terms is,

   81 – 79 = 2.

   Again, difference between the third term and the second term of the series is,

   84 – 81 = 3.

   Again,

   Again, difference between the fourth term and the third term of the series is,

   89 – 84 = 5.

   Again, difference between the fifth term and the fourth term of the series is,

   96 – 89 = 7.

   Now, the differences that is, 2, 3, 5, 7,... are all consecutive prime numbers on the number line of integers.

   Then, the next prime number is 11.

   So, the difference between the next term of the series and the last known term of the series should be 11.

   Then, adding 11 to the last term of the series, we get,

96 + 11 = 107.

Thus, 107 is the next term of the series.

2. Answer: b

Explanation:

According to the given information, s ix boys A, B, C, D, E, and F are sitting in a straight row facing north.

Case 1): Given that, B sits second to the right of D. That means there is one place between B and D.

D _ B

Case 2): Also, A sits fourth to the left of F and F does no sit at the extreme ends of the row. This means there are three places between A and F.

A _ _ _ F

Case 3): Also, C sits second to the right of B. Thus, there is also a place between C and B.

B _ C

By combining the above cases we can conclude that,

Now, option 1 gives that F sits second to the right of A, which is an impossibility since F sits fourth to the right of A.

Now, option 2 gives that E sits second to the right of A. This is correct since then, the arrangement will be A D E B F C which goes at par with the given arrangement in the question.

<u>A D E B F C</u>

Now, option 3 gives that B sits second to the right of A, which is an impossibility since B has to sit second to the right of D.

Now, option 4 gives that D sits second to the right of A, which is an impossibility since then B will sit second to the right of D which will not allow F to sit fourth to the right of A.

Hence, the correct answer is E.

---

3. **Answer: d**

Explanation:

The correct option is 4, i.e., A.

According to the given information, E is older than D. Also, given that, B is older than E and only two persons are older than D.

This means that, the eldest one is B and the second eldest one is E and since o nly two persons are older than D, the others except B and E are younger than D, that is, C and A.

Now, given that, C is older than only one friend.

This means that A is the youngest one.

Hence, the correct answer is A.

---

4. **Answer: a**

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 pattern followed here is:

- In LAB : BAL
  -
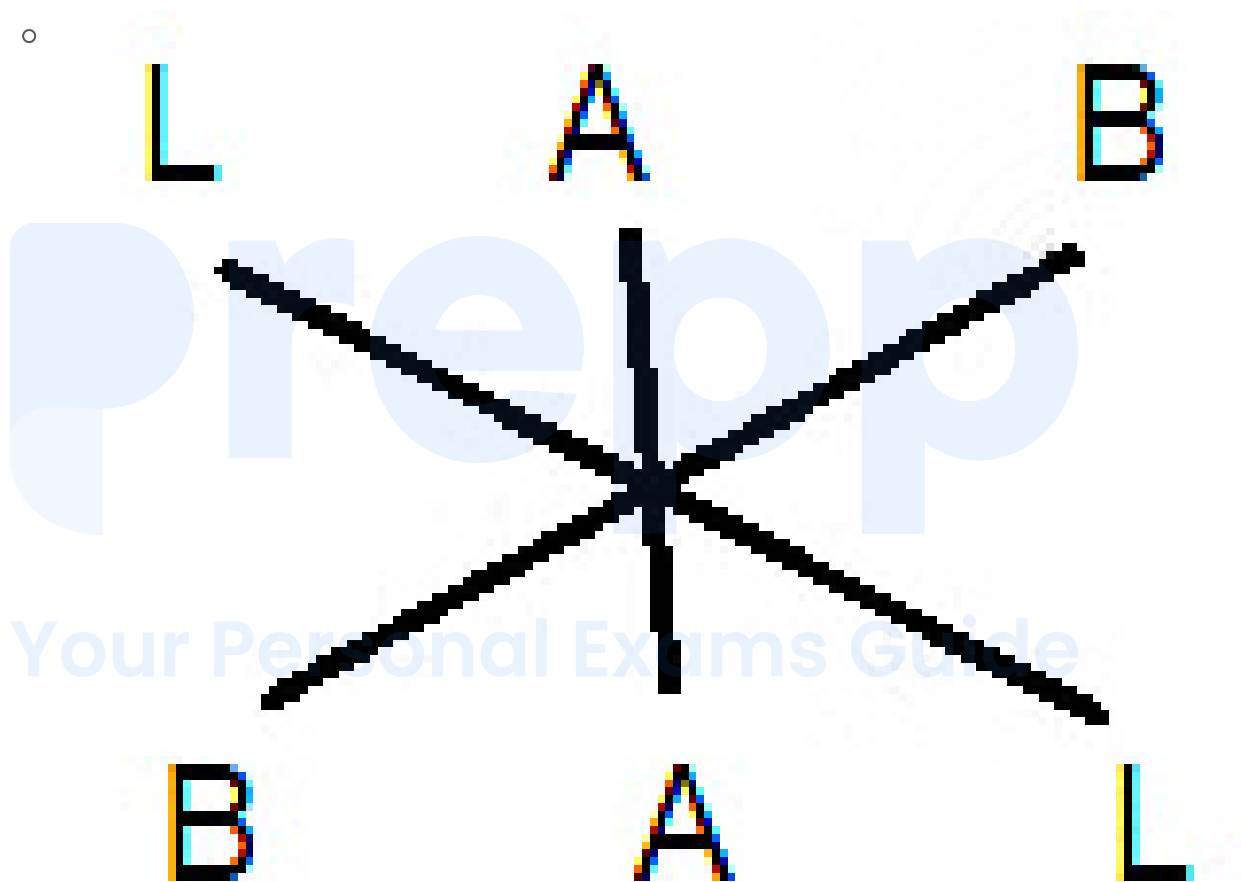
- Similarly, ONM : MNO

O

O   N   M
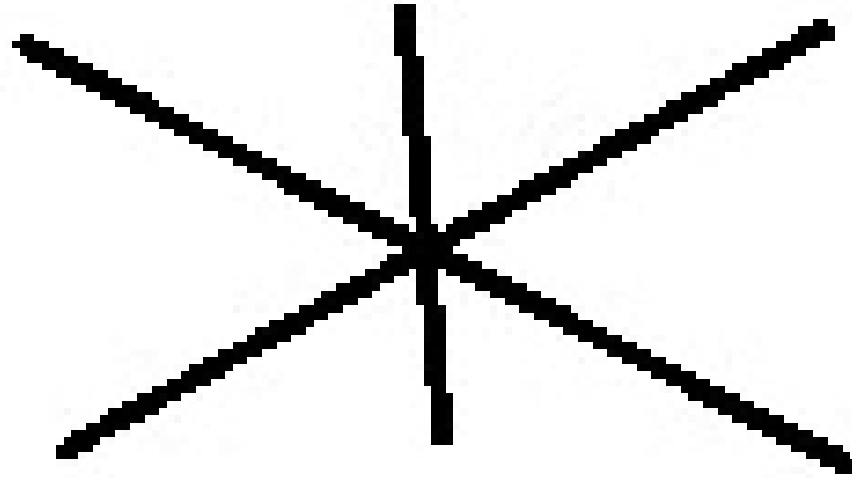
M   N   O

Hence, **Option 1)** is the correct answer.

5. **Answer: b**

Explanation:

Option 2 is correct.

The common letters between both given words are R and H.

The common digits from both codes are 6 and 3.

Thus, the remaining letters in the second word is E and A. Now E and A is coded as 1 and 5.

Now, from the first word, F = 8, T = 2

Thus, EAFT is coded as 1582.

Thus, option 2 is correct.

---

6. Answer: a

Explanation:

The correct option is 1, i.e., only I follows.

According to the given information, it is given that,

All snakes are ants and no ant is a lizard.

Now, conclusion I says ' Some ants are snakes.' It is given that, some snakes are rats, which means if A is a set of snakes and B is a set of rats, then, A is an intersection of B. This means some ants are snakes.

Now, conclusion II says 'Some snakes are lizards.' It is given that no ant is a lizard, and since all snakes are ants, the conclusion is incorrect and does not follow.

Option 1 says ' Only I follows' which is correct.

Option 2 says 'Both I and II follow' which is incorrect since conclusion II does not follow.

Option 3 says 'Only II follows' which is incorrect since conclusion II does not follow.

Option 4 says 'Neither I nor II follows' which is incorrect since conclusion I follows.

Hence, the correct answer is 'Only I follows'.

---

7. Answer: c

Explanation:

The correct option is 3, i.e., 42.

The first term in the first relation is 53. Now reversing the digits of the number we get a new number, that is, 35, which is the second term of the first relation.

In the second relation, the first term is 37. Now reversing the digits of the number we get a new number, that is, 73, which is the second term of the second relation.

Thus, in the relations, the second term is obtained by reversing the digits of the first term of that relation.

Thus, for the third relation, the first term is 24. The second term will be obtained by reversing the digits. Then, we get the second term as 42.

Hence, the correct answer is 42.

---

8. **Answer: c**

Explanation:

The correct option is 3, i.e., – and ×.

Option 1) + and ÷

The given equation is, $2 + 5 - 3 \times 6 \div 2 = 14$.

Interchanging the signs, we get,

LHS = $2 \div 5 - 3 \times 6 + 2$

By the BODMAS rule, the terms related by ÷ is calculated first.

LHS = $0.4 - 3 \times 6 + 2$

By the BODMAS rule, the terms related by × is calculated next.

LHS = $0.4 - 18 + 2$

By the BODMAS rule, the terms related by + is calculated next.

LHS = $0.4 - 20$

By the BODMAS rule, the terms related by − is calculated next.

LHS = −19.6 which is not equal to RHS.

Thus, option 1 is incorrect.

Option 2) × and ÷

The given equation is, 2 + 5 − 3 × 6 ÷ 2 = 14.

Interchanging the signs, we get,

LHS = 2 + 5 − 3 ÷ 6 × 2

By the BODMAS rule, the terms related by ÷ is calculated first.

LHS = 2 + 5 − 0.5 × 2

By the BODMAS rule, the terms related by × is calculated next.

LHS = 2 + 5 − 1

By the BODMAS rule, the terms related by + is calculated next.

LHS = 7 − 1 = 6 which is not equal to RHS.

Thus, option 2 is incorrect.

Option 3) − and ×

The given equation is, 2 + 5 − 3 × 6 ÷ 2 = 14.

Interchanging the signs, we get,

LHS = 2 + 5 × 3 − 6 ÷ 2

By the BODMAS rule, the terms related by ÷ is calculated first.

LHS = 2 + 5 × 3 − 3

By the BODMAS rule, the terms related by × is calculated next.

LHS = 2 + 15 − 3

By the BODMAS rule, the terms related by + is calculated next.

LHS = 17 – 3 = 14 = RHS.

Thus, option 3 is correct.

Option 4) + and ×

The given equation is, 2 + 5 – 3 × 6 ÷ 2 = 14.

Interchanging the signs, we get,

LHS = 2 × 5 – 3 + 6 ÷ 2

By the BODMAS rule, the terms related by ÷ is calculated first.

LHS = 2 × 5 – 3 + 3

By the BODMAS rule, the terms related by × is calculated next.

LHS = 10 – 3 + 3

By the BODMAS rule, the terms related by + is calculated next.

LHS = 10 – 6 = 4 which is not equal to RHS.

Thus, option 4 is incorrect.

Thus, option 3 is correct.

9. **Answer: b**

Explanation:

In option 1, the figure given is,

Here, the figure in question is not embedded in this figure.

Thus, option 1 is incorrect.

In option 2, the figure given is,


Now, the figure in question is embedded in this figure, that is,

Thus, option 2 is correct.

In option 3, the figure given is,

Here, the figure in question is not embedded in this figure.

Thus, option 3 is incorrect.

In option 4, the figure given is,

Here, the figure in question is not embedded in this figure.

Thus, option 4 is incorrect.

Hence, option 2 is correct.

10. **Answer: c**

Explanation:

The correct option is 3.

Let us consider the figure given in option 1.

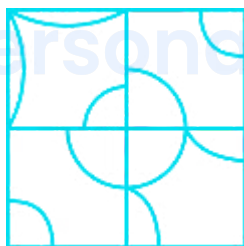Putting it in the missing place in the figure in question, we get,
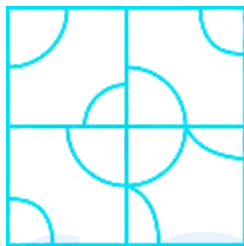
This is incorrect and does not fit.

Thus, option 1 is incorrect.

Let us consider the figure given in option 2.

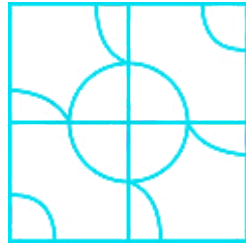Putting it in the missing place in the figure in question, we get,

This is incorrect and does not fit.

Thus, option 2 is incorrect.

Let us consider the figure given in option 3.

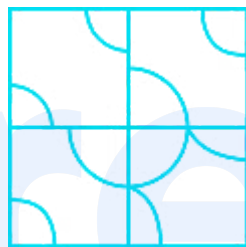Putting it in the missing place in the figure in question, we get,

Thus, this is correct and it fits.

Thus, option 3 is correct.

Let us consider the figure given in option 4.

Putting it in the missing place in the figure in question, we get,

This is incorrect and does not fit.

Thus, option 4 is incorrect.

Thus, option 3 is correct.

11. **Answer: c**

   Explanation:

   The correct option is 3.

   According to the given information, the given figure is,

In this figure, the first box has one arrow and the second box has two arrows with the pointed end facing each other. In the third box, in order to add another arrow and make those pointed ends facing each other, the direction of the arrows are changed and we see that the second and third arrows' pointed ends facing each other. Similarly, in the fourth box, to add another arrow, the direction of all the arrows are changed in order to make the third and fourth arrows' pointed ends face each other. Hence, in the fifth box, the direction of arrows need to be changed again, in order to make the fourth and fifth arrows' pointed heads face each other.

In option 1, the fourth and fifth arrows are in the same direction which does not follow the pattern.

Thus, option 1 is incorrect.

In option 2, all the arrows are placed in a different direction of the box.

Thus, option 2 is incorrect.

In option 3, the direction of arrows are changed again, in order to make the fourth and fifth arrows' pointed heads face each other.

Thus, option 3 is correct.

In option 4, the direction of arrows are not changed.

Thus, option 4 is incorrect.

Hence, option 3 is correct.

---

12. **Answer: a**

Explanation:

The correct option is 1.

According to the given information, the given image is,

H G J Y T E K | M N

Now, to get the mirror image, A vertical axis is drawn on each letter in the image and left part of each letter is changed into the right part of each letter or vice versa.

H G J Y T E K | M N K E T Y L G H

Now, in option 1, every letter follows the above rule, and the left hand side of the letters are changed to the right hand side of each letter, thus obtaining the mirror image of the image in question.

Thus, option 1 is correct.

Now, in option 2,

T and Y are vertically inverted, i.e, the top part has changed to the bottom part of the letters.

Thus, option 2 is incorrect.

Now, in option 3,

T is vertically inverted, i.e, the top part has changed to the bottom part of the letter.

Thus, option 3 is incorrect.

Now, in option 4,

Y is vertically inverted, i.e, the top part has changed to the bottom part of the letter.

Thus, option 4 is incorrect.

Hence, option 1 is correct.

13. **Answer: a**

Explanation:

The correct option is 1.

According to the given information, the image given is,

Now, in this image, the circle travels to half of each side in each box. For the first box, it is at the top left corner. In the second box, it traverses to half of the top side of the box. In the third box, the circle moves to the top right corner of the box. In the fourth box, the circle moves to the half of the right side of the box. Thus, following a similar pattern, the circle should move to the bottom right corner of the box...(1)

Now, in the image, the arrow moves in an anticlockwise direction. In the first box, it is seen facing downwards. In the second box, it is seen facing rightwards. In the third box, it is seen facing upwards. In the fourth box, it is seen facing leftwards. Thus, following a similar pattern, in the fifth box, the arrow should be facing downwards...(2)

Now, in the image, the star travels to each corner for each consecutive box. In the first box, the star is in the top right corner. In the second box, the star is in the bottom right corner. In the third box, the star is in the bottom left corner. In the fourth box, the star is in the top left corner. Thus, following a similar pattern, the star will be in the top right corner in the fifth box...(3)

In option 1, since all criterion 1, 2 and 3 hold, the option is correct.

In option 2, criterion 2 and 3 does not hold. Thus, the option is incorrect.

In option 3, criterion 3 does not hold. Thus, the option is incorrect.

In option 4, criterion 2 and 3 does not hold. Thus, the option is incorrect.

Hence, option 1 is correct.

---

14. Answer: c

Explanation:

Option 3 is correct, i.e., Kaushal.

According to the given information, s ix students, Aryan, Shreya, Arshit, Puneet, Kaushal and Harsh, are sitting around a circular table facing the centre.

Now, given that, Shreya is sitting second to the right of Puneet. This means that there is a space between both of them.

Again, Puneet is third to the right of Aryan, which means there are two places between both of them.

Again, Arshit and Harsh are not the immediate neighbors of Shreya, which means that, they can be placed between Aryan and Puneet without violating any criterion.

Again, given that, Harsh is sitting second to the left of Kaushal, which makes Kaushal sit in the only empty space left between Puneet and Shreya.

Thus, the immediate neighbour of Shreya and Puneet is Kaushal, who is sitting between them.

Hence, option 3 is correct.

---

15. Answer: b

Explanation:

Option 2 is correct, i.e., PNNLDB.

Now, given that, TRICAD is written as FBEJTU .

Now, the letter immediately after T in the English alphabets is U.

Again, the letter two places after R is T.

The letter immediately after I in the English alphabets is J.

Again, the letter two places after C is E.

The letter immediately after A in the English alphabets is B .

Again, the letter two places after D is F .

Similarly, for the word OPQSBG,

The letter immediately after O in the English alphabets is P.

Again, the letter two places after P is R.

The letter immediately after Q in the English alphabets is R.

Again, the letter two places after S is U.

The letter immediately after B in the English alphabets is C.

Again, the letter two places after G is I.

Thus, adding the letters in the odd places and even places of each word, with 1 and 2 respectively, we get the letters in the odd places and even places of the code of that word, but in reversed manner.

Then, for ABKLMN, we get,

A + 1 = B

B + 2 = D

K+ 1 = L

L + 2 = N

M + 1 = N

N + 2 = P

Reversing the letters, we get the code as, PNNLDB.

Thus, option 2 is correct.

---

16. **Answer: a**

Explanation:

Option 1 is correct, i.e., 1106.

The first term in the first relation is 133. Multiplying this term by 5, we get,

133 × 5 = 665.

Adding 1 to this product, we get, 665 + 1 = 666.

Again, considering the second relation, the first term is 157.

Multiplying this term by 5, we get,

157 × 5 = 785.

Adding 1 to this product, we get, 785 + 1 = 786.

This means the second term is 1 added to the product of the first term and 5.

Then, the first term of the third relation is 221. Then, multiplying 5 with this number, we get,

221 × 5 = 1105.

Adding 1, we get, 1105 + 1 = 1106.

Thus, option 1 is correct.

---

17. **Answer: a**

Explanation:

Option 1 is correct, i.e., AMI.

The first word is RAT and the second word is UEY.

Now, when we traverse 3 places after R in the English Alphabet series, we get the letter U.

Again, when we traverse 4 places after A in the English Alphabet series, we get the letter E.

Again, when we traverse 5 places after T in the English Alphabet series, we get the letter Y.

Similarly,

When we traverse 3 places after U in the English Alphabet series, we get the letter X.

Again, when we traverse 4 places after E in the English Alphabet series, we get the letter I.

Again, when we traverse 5 places after Y in the English Alphabet series, we get the letter D.

Thus, we get the third word.

Thus, each word in the given series is found out by,

Finding the first letter by traversing 3 places from the first letter of the previous word in the series.

Finding the second letter by traversing 4 places from the second letter of the previous word in the series.

Finding the third letter by traversing 5 places from the third letter of the previous word in the series.

Thus, applying these rules, we get the unknown word as,

Traversing 3 places after X in the English Alphabets, we get, A.

Traversing 4 places after I in the English Alphabets, we get, M.

Traversing 5 places after D in the English Alphabets, we get, I.

Thus, the word is AMI.

Hence, option 1 is correct.

---

18. **Answer: a**

Explanation:

Option 1 is correct, i.e., 95.

According to the given information, LOWER is coded as 37.

Now, in the English Alphabet, L has a place value of 12, O has a place value of 15, W has a place value of 23, E has a place value of 5 and R has a place value of 18.

Now the sum of the place values is 12 + 15 + 23 + 5 + 18 = 73, which when its digits are reversed becomes 37.

Again, when we consider the word OVER, which is coded as 06, we get,

O has a place value of 15, V has a place value of 22, E has a place value of 5 and R has a place value of 18.

The sum of the place values is 15 + 22 + 5 + 18 = 60 which when has its digits reversed becomes 06.

In a similar manner, when we consider the word MELON,

The place value of,

M = 13

E = 5

L = 12

O = 15

N = 14

The sum of the place values = 13 + 5 + 12 + 15 + 14 = 59

Reversing the digits of the number, we get, 95, i.e., MELON is coded as 95.

Thus, option 1 is correct.
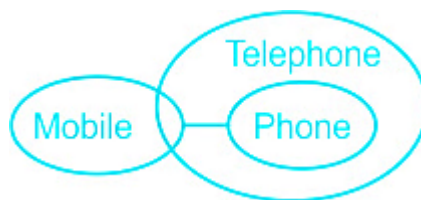
---

19. **Answer: b**

Explanation:

Given that,

Conclusions:

I. All phones being telephones is a possibility. → **Follows**

[Some mobiles are telephones, but all telephones are mobiles is also a possibility. So, the conclusion I is definitely true.]

II. Some telephones are not mobiles. → **Does not follows** [As Some mobiles are telephones. So, it is possible Some telephones are not mobiles. But it is not definitely true. Hence, this conclusion is false.]

Hence, only the conclusion I follows.

Thus, **option 2** is correct.

---

20. **Answer: a**

Explanation:

Option 1 is correct.

By BODMAS Rule,

- Terms related with ÷ is calculated first.
- Terms related with × is calculated next.
- Terms related with + is calculated next.
- Terms related with – is calculated next.

Option 1:

Given expression is 16 + 15 – 25 × 4 ÷ 5 = 20.

Interchanging × and ÷ , 16 and 25, we get,

LHS = 25 + 15 – **16 ÷ 4** × 5

= 25 + 15 – **4 × 5**

= **25 + 15** – 20

= 40 – 20

= 20 = RHS

Option 2:

Given expression is 16 + 15 – 25 × 4 ÷ 5 = 20.

Interchanging + and –, 4 and 25 , we get,

LHS = 16 + 15 – 25 × **4 ÷ 5**

= 16 + 15 – **25 × 0.8**

= **16 + 15** – 20

= 31 – 20

= 11 not equal to RHS

Option 3:

Given expression is 16 + 15 – 25 × 4 ÷ 5 = 20.

Interchanging × and ÷ , 16 and 4, we get,

LHS = 4 + 15 – **25 ÷ 16** × 5

= 4 + 15 – **1.5625 × 5**

= **4 + 15** – 7.8125

= 19 – 7.8125

= 11.1875 not equal to RHS

Option 4:

Given expression is 16 + 15 – 25 × 4 ÷ 5 = 20.

Interchanging – and × , 15 and 25, we get,

LHS = 16 + 25 × 15 – **4 ÷ 5**

= 16 + **25 × 15** – 0.8

= **16 + 375** – 0.8
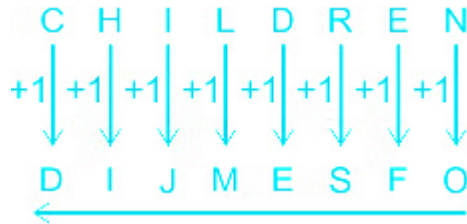
= 391 – 0.8

= 390.2 not equal to RHS.

Thus, option 1 is correct.

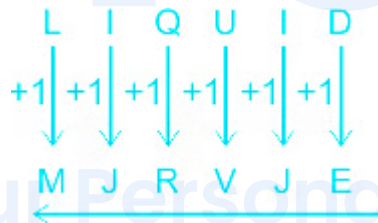21. **Answer: d**

Explanation:

The pattern followed here is:

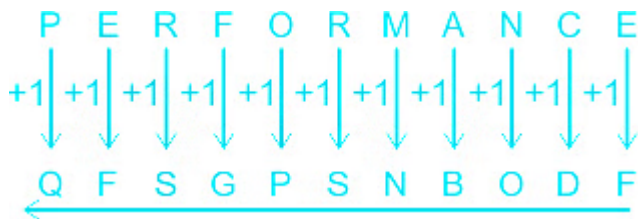'CHILDREN' is written as 'OFSEMJID'


```
C   H   I   L   D   R   E   N
+1  +1  +1  +1  +1  +1  +1  +1
D   I   J   M   E   S   F   O
```

'CURTAIN' is written as 'OJBUSVD'


```
C   U   R   T   A   I   N
+1  +1  +1  +1  +1  +1  +1
D   V   S   U   B   J   O
```

'LIQUID' is written as 'EJVRJM'


```
L   I   Q   U   I   D
+1  +1  +1  +1  +1  +1
M   J   R   V   J   E
```
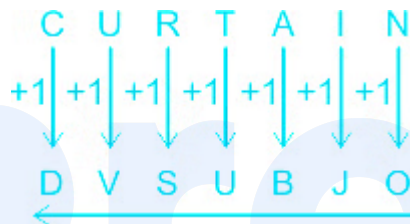
Similarly,

'PERFORMANCE' will be written as ?:


```
P   E   R   F   O   R   M   A   N   C   E
+1  +1  +1  +1  +1  +1  +1  +1  +1  +1  +1
Q   F   S   G   P   S   N   B   O   D   F
```

Thus, 'PERFORMANCE' will be written as 'FDOBNSPGSFQ'

Hence, 'FDOBNSPGSFQ' is the correct answer.

22. **Answer: d**

Explanation:

Option 4 is correct.

Now, months make up a year. The unit less than a year is a month.

Also, days make up a week. The unit less than a week is a day.

Then, seconds are units less than minutes.

Thus, second makes up a minute.

Thus, option 4 is correct.

23. **Answer: a**

Explanation:

Option 1 is correct.

Here, it adds 2 to the mode of calculation as it proceeds to the next letter, and '+' and '-' are used as alternate operators for the calculation of the letters in each letter-cluster.

So, in the first letter-cluster:-

G + 2 = I

A - 4 = W

M + 6 = S

E - 8 = W

In a similar manner,

H + 2 = J

O – 4 = K

P + 6 = V

E – 8 = W

In a similar manner,

S + 2 = U

O – 4 = K

L + 6 = R

O – 8 = G

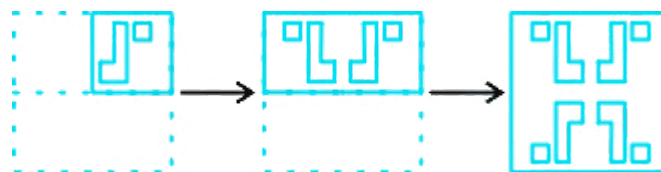Thus, the second term is UKRG.

Thus, option 1 is correct.

---

24. **Answer: a**

Explanation:

The paper is folded initially into half. Then, that folded paper is folded into another half. Then, cutouts are made.

When, the paper is unfolded, the cutout should appear at four places, where 2 cutouts are formed on the upper part and two inverted cutouts are formed on the lower part.

This can only be seen in option 1.

Thus, option 1 is correct.

---

25. Answer: a

Explanation:

Option 1 is correct.

Now, for the first set,

30 – 14 = 16

16 ÷ 2 = 8

Similarly, for the second set,

Now, for the second set,

84 – 12 = 72

72 ÷ 2 = 36

In the same way, we need to follow the steps in the options:

In option 1,

108 – 18 = 90

90 ÷ 2 = 45

Thus, option 1 is correct.

---

26. Answer: b

Explanation:

Given:

$$\frac{84 \div 12 \times 3 - 4 \div 12 \times 9 + 5 \times 6 - 2 \times 3}{8 \div 12 \times 3}$$

Calculations:

$[(84 \div 12) \times 3 - (4 \div 12) \times 9 + 5 \times 6 - 2 \times 3] \div [(8 \div 12) \times 3]$

$\Rightarrow [7 \times 3 - (1/3) \times 9 + 30 - 6] \div [(2/3) \times 3]$

$\Rightarrow [21 - 3 + 24] \div [2]$

$\Rightarrow [18 + 24] \div [2]$

$\Rightarrow 42 \div 2 = 21$

$\therefore$ The value of the given equation is 21.

---

27. **Answer: a**

Explanation:

Given:

The cost price of two fans is the same.

One fan is sold at a loss of 20%

The other fan is sold at loss of 60%.

Formula used:

Selling Price = Cost Price (1 - Loss%)

Loss% = $\left(\frac{Loss}{Cost\ Price}\right) \times 100$

Calculation:

Let the Cost Price of both the Fans be 'x'

According to the question,

Selling Price (SP) of 1st fan,

⇒ SP = x (1 – 20%)

⇒ SP = x (1 – 0.20) = 0.8x

S.P of 2nd fan

⇒ SP = x (1 – 60%)

⇒ SP = x (1 – 0.60) = 0.4x

Total cost price of two fans = 2x

Total S.P of 2 fans = 0.8x + 0.4x = 1.2x

Since C.P > S.P

He got Loss on whole

Loss = C.P – S.P = 2x – 1.2x = 0.8x

Now Loss%,

L% = $\left(\frac{Loss}{Cost\ Price}\right)$ × 100

⇒ L% = $\left(\frac{0.8x}{2x}\right)$ × 100

⇒ L% = 0.4 × 100 = 40%

∴ T he overall loss percentage is 40%.

---

28. **Answer: b**

Explanation:

Given:

Three numbers are in the ratio of 2 : 3 : 5.

The sum of these three numbers is 80

Calculations:

According to the question,

The sum of these three numbers is 80

2x + 3x + 5x = 80

⇒ 10x = 80

⇒ x = 8

Now the product of these three numbers

(2x) × (3x) × (5x)

⇒ (2 × 8) × (3 × 8) × (5 × 8)

⇒ (16) × (24) × (40) = 15360

∴ **The product of these three numbers is 15360.**

29. **Answer: d**

Explanation:

Given:

The following pie chart shows the sectors representing the shares of the number of lights manufactured in a given year by each of six different factories in terms of the central angles (in degrees) with respect to the total number of lights manufactured in that year by all the six factories taken together.
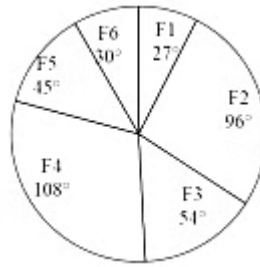
Total lights Manufactured = 1840

Calculations:

According to the question,

Lights manufactured by F5

Percentage = $\left(\frac{45°}{360°}\right)$ × 100

⇒ P = 0.125 × 100 = 12.5%

Total lights by F5 = 12.5% of 1840

⇒ 12.5% × 1840

⇒ 0.125 × 1840 = 230

Lights manufactured by F1

Percentage = $\left(\frac{27°}{360°}\right)$ × 100

⇒ P = 0.075 × 100 = 7.5%

Total lights by F1 = 7.5% of 1840

⇒ 7.5% × 1840

⇒ 0.075 × 1840 = 138

Now the difference between the numbers of lights manufactured by F5 and F1 = 230 – 138 = 92 lights

∴ The difference between the numbers of lights manufactured by F5 and F1 is of 92 lights.

30. **Answer: d**

Explanation:

Given:

The greatest number of 4-digits which is divisible by 45, 25 and 5

Calculations:

Greatest number of 4-digits is 9999.

L.C.M. of 5,25, and 45 is 3 × 3 × 5 × 5 = 225.

On dividing 9999 by 225, the remainder is 99.

Required number = (9999 – 99) = 9900.

∴ T he greatest number of 4-digits which is divisible by 45, 25 and 5 is 9900.

31. **Answer: a**

Explanation:

Given:

Length (l) = 56 m

Breadth (b) = 34 m

Height (h) = 8 m

Formula used:

Diagonal of cuboid = $\sqrt{[(l)^2 + (b)^2 + (h)^2]}$

Calculations:

According to the question,

Diagonal = $\sqrt{[(56)^2 + (34)^2 + (8)^2]}$

⇒ Diagonal = $\sqrt{[3136 + 1156 + 64]}$

⇒ Diagonal = $\sqrt{4356}$ = 66 m

∴ **The longest ladder that can be placed in the room is of 66 m.**

---

32. **Answer: c**

Explanation:

Given:

The total surface area of a closed hemisphere is 4158 cm ^{2} .

Formula used:

TSA of hemisphere = 3π r ^{2}

Diameter = 2(Radius)

Calculation:

According to the question,

4158 = 3π r 2

⇒ r 2 = $\frac{4158}{3\pi}$

⇒ r 2 = $\frac{(4158 \times 7)}{66}$

⇒ r 2 = $\frac{29106}{66}$

⇒ r = $\sqrt{441}$ = 21

Now Diameter = 2 × (21) = 42 m

∴ The diameter of the hemisphere is 42 m.

---

33. **Answer: a**

Explanation:

Given:

Principle (P) = ₹10000

Time (T) = 2 years

Compound Interest (CI) = ₹609

Concept used:

CI = A – P

A = P(1 + R%)^T

Calculations:

According to the question,

CI = A – 10000

⇒ A = 609 + 10000 = 10609

Now,

A = 10000(1 + R%)^2

⇒ 10609 = 10000(1 + R%) 2

⇒ (1 + R%) 2 = $\frac{10609}{10000}$

⇒ (1 + R%) 2 = 1.0609

⇒ (1 + R%) = $\sqrt{1.0609}$

⇒ R% = 1.03 – 1

⇒ R% = 0.03

⇒ R = 3%

∴ The rate of compound interest is 3% per annum.

---

34. **Answer: c**

Explanation:

Given:

The total surface area of a closed cube is 1350 cm 2 .

Formula used:

The total surface area of a cube = 6a ^{2}

Calculations:

According to the question,

TSA = 6a 2

⇒ 6a 2 = 1350

⇒ a 2 = $\frac{1350}{6}$

⇒ a 2 = 225

⇒ a = $\sqrt{225}$ = 15 cm

∴ The length of each side of this cube is 15 cm.

---

35. **Answer: b**

Explanation:

Given:

The production in a factory decreases by 30%.

Formula used:

Production = Manpower × Working hours

Calculation:

Decrease in production is only due to decrease in manpower. Hence, manpower is decreased by 30%.

Now, suppose that to restore the same production, working hour are increased by x%.

Production = Manpower × Working hours = M × W

$\Rightarrow$ M × W = (M − 30% of M) × (W + x% of W)

$\Rightarrow$ M × W = $\left(\frac{70}{100}\right)$ M × $\left[\frac{(100+x)}{100}\right]$ W

$\Rightarrow$ 100 × 100 = 70 × (100 + x)

$\Rightarrow$ 100 + x = 100 × $\frac{100}{70}$

$\Rightarrow$ x = $\frac{300}{7}$ = 42.86%

∴ The working hours be increased by 42.86% to restore the original production.

---

36. **Answer: b**

Explanation:

Given:

$$\frac{3 \times 7 + 12}{12 \times 7 + 3 \times 4 - 2} = \frac{1}{K}$$

Calculations:

$[(3 \times 7) + 12] \div [(12 \times 7) + (3 \times 4) - 2] = \frac{1}{K}$

$\Rightarrow [21 + 12] \div [84 + 12 - 2] = \frac{1}{K}$

$\Rightarrow \frac{33}{94} = \frac{1}{K}$

$\Rightarrow K = \frac{94}{33}$

$\therefore$ The value of K is $\frac{94}{33}$.

---

37. Answer: d

Explanation:

Given:

A thief escapes custody at 10 a.m. He runs at a speed of 40 km/h.

The policeman starts chasing the thief at 11:30 a.m.

The speed of the policeman is 60 km/h.

Concept used:

Speed = Distance/Time

Calculations:

Let the time taken by police to chase the thief be 't'

According to the question,

Police started after 1.5 hrs of start of thief

60t = 40t + 40(1.5)

$\Rightarrow$ 20t = 60

⇒ t = $\frac{60}{20}$ = 3 hours

Time taken by police to catch thief = 3 + 1.5 = 4.5 hours

The Thief escaped at 10 AM and police will catch him 4.5 hours later or at 2:30 PM.

∴ T he policeman will catch the thief at 2:30 PM.

---

38. **Answer: c**

Explanation:

Given:

Profit = ₹12.75

Marked Price = 10%

Discount % = 5%

Concept used:

P% = $\left(\frac{Profit}{CP} \right)$ × 100

Discount% = (A + B) – $\left(\frac{A \times B}{100} \right)$

Calculations:

According to the question,

D% = $\left[10 + (-5) \right]$ – $\left[\frac{10 \times (-5)}{100} \right]$

⇒ D% = 5 – $\left[\frac{-50}{100} \right]$

⇒ D% = 5 – $\left[-\ 0.5 \right]$

⇒ D% = 5 + 0.5 = 5.5%

Now profit% = 10% – 5.5% = 4.5%

$P\% = \left(\frac{12.87}{CP} \right) \times 100$

$\Rightarrow CP = \left(\frac{12.87}{4.5} \right) \times 100$

$\Rightarrow CP = 2.86 \times 100 = ₹286$

∴ The actual cost price of the item is ₹286.

---

39. **Answer: b**

Explanation:

Given:

Pipe A can fill an empty cistern in 6 hours

Pipe B can fill the same empty cistern in 8 hours.

Calculations:

According to the question,

Part of cistern filled by A in 1 hr = 1/6

Part of cistern filled by B in 1 hr = 1/8

Therefore part of cistern filled by A and B

In 1 hr = (1/6) + (1/8) = (4 + 3)/24 = 7/24

In 2 hrs = 14/24 = 7/12

No of hrs taken by B to fill remaining part of cistern = remaining part of cistern/part of cistern filled per hr by B

$\Rightarrow (5/12) \div (1/8)$

$\Rightarrow (5 \times 2)/3 = 10/3$

∴ Time required by B to fill remaining part is 10/3 hrs or $3\frac{1}{3}$.

40. Answer: d

Explanation:

Given:

Two numbers are, respectively, 20% and 10% more than a third number

Calculations:

Let the third no. be 'x'

According to the question,

1st no. = x(1 + 20%)

⇒ x(1 + 0.20) = 1.2x

2nd no. = x(1 + 10%)

⇒ x(1 + 0.10) = 1.1x

Now, The ratio of the first number to the second

⇒ 1.2x/1.1x = 12/11 or 12 : 11

∴ The ratio of the first number to the second is 12 : 11.

41. Answer: c

Explanation:

Given:

First 14 positive even numbers

Concept used:

Average = Sum of all values/Total no. of values

Calculations:

According to the question,

The first 14 even numbers

⇒ 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28

The sum of first 14 even numbers

⇒ 2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 + 20 + 22 + 24 + 26 + 28 = 210

Average = 210/14 = 15

∴ The average of the first 14 positive even numbers 15.

---

42. **Answer: a**

Explanation:

Given:

A sum ₹ 5,600 gives ₹ 2,061.36 including both simple interest and compound interest on the sum at the same rate in 2 years.

Formula used:

Simple interest = (P × R × t)/100

Compound interest = $P(1 + \frac{R}{100})^t - P$

Where P = principal

R = rate of interest

t = time

Calculation:

Let the rate of interest be r% per annum

Then, According to the Question, we get:

Compound interest + Simple interest = 2061.36

$\Rightarrow \{P(1 + \frac{R}{100}) t - P\} + (P \times R \times t)/100 = 2061.36$

$\Rightarrow 2061.36 = (5600 \times r \times 2)/100 + \{5600(1 + \frac{r}{100})^2 - 5600\}$

$\Rightarrow 5600 + 2061.36 = 112r + 5600\{1 + \frac{r^2}{10000} + \frac{2r}{100}\}$

$\Rightarrow 7661.36 = 112r + 5600 + 0.56r^2 + 112r$

$\Rightarrow 7661.36 - 5600 = 224r + 0.56r^2$

$\Rightarrow 2061.36 = 0.56r^2 + 224r$

$\Rightarrow 0.56r^2 + 224r - 2061.36 = 0$

On dividing by 0.56 both sides, we get:

$\Rightarrow r^2 + 400r - 3681 = 0$

$\Rightarrow r^2 + 409r - 9r - 3681 = 0$

$\Rightarrow r(r + 409) - 9(r + 409) = 0$

$\Rightarrow (r + 409)(r - 9) = 0$

$\Rightarrow r = 9\%$ as rate can't be negative so - 409 is not valid.

∴ **The Required rate is 9%.**

---

43. **Answer: d**

Explanation:

Given:

CP of bike = Rs. 84000

Loss% = 12%

Concept used:

SP = CP(1 – L%)

Calculations:

According to the question,

SP = 84000(1 – 12%)

⇒ SP = 84000(1 – 0.12)

⇒ SP = 84000(0.88) = Rs. 73920

∴ T he selling price of the motorcycle is Rs. 73920.

---

44. Answer: a

Explanation:

Given:

Rice at ₹ 60 per kg be mixed with rice at ₹42 per kg such that by selling the mixture at ₹ 56 per kg

Gain = 12%

Calculation:

SP of the mixture = ₹56

CP of the mixed sugar = $56 \times \left(\frac{100}{112}\right)$ = ₹50

Using allegation method

60 42

50

8 : 10

Required ratio = 8 : 10 = 4 : 5

∴ The ratio of the mixture will be of 4 : 5.

---

45. **Answer: d**

Explanation:

Given:

The present average age of Rachel and Ross is 34 years.

Concept used:

Average = $\frac{Sum\ of\ values}{Total\ values}$

Calculation:

According to the question,

34 = $\frac{2x}{2}$

⇒ 2x = 34 × 2 = 68

New Average after 6 years

A = $\frac{[(x+6)+(x+6)]}{2}$

⇒ A = $\frac{[2x+12]}{2}$

⇒ A = $\frac{[68+12]}{2}$

⇒ A = $\frac{80}{2}$ = 40

∴ The average age of Ross and Rachel after 6 years will be 40 years.

46. **Answer: c**

Explanation:

Given:

The following table shows the marks scored by five different students in three subjects.

Marks	English	Hindi	Maths
Rahul	85	85	46
Shreya	89	95	58
Seema	45	75	68
Mohan	33	99	87
Krish	85	84	98

Calculations:

According to the question,

Total marks of Rahul = English + Hindi + Maths = 85 + 85 + 46 = 216

Average value = $\frac{216}{3}$ = 72 marks

∴ **The average of Rahul's marks in the three given subjects is 72.**

47. **Answer: d**

Explanation:

Given:

Arshi can do a piece of work in 30 days

Ahan can complete it in 20 days.

Calculations:

Arshi's 1 day's work = 1/30

Ahan's 1 day's work = 1/20

If they work together then work will be completed in =

⇒ (1/30) + (1/20)

⇒ (2 + 3)/60 = 5/60 = 1/12

(Arshi + Ahan)'s 1 day's work = 1/12

If they work together then work will be completed in 12 days.

Fraction of work completed in 4 days

⇒ 4 × (1/12) = 1/3

Remaining fraction of work after 4 days

⇒ 1 – (1/3)

⇒ (3 – 1)/3 = 2/3

Arshi will complete 2/3 of work in

⇒ (2/3) × (30) = 10 days

∴ Arshi will complete remaining work in 20 days.

---

48. **Answer: c**

Explanation:

Given:

Distance = 500 m

Time = 5 min

Formula used:

Speed = $\frac{Distance}{Time}$

Calculations:

According to the question,

Distance 500 m = 0.5 km [1 km = 1000 m]

Time 5 mins = $\frac{5}{60} = \frac{1}{12} hour$

Now Speed = $\frac{Distance}{Time} = \frac{0.5}{\left(\frac{1}{12}\right)}$

⇒ Speed = 0.5 × 12 = 6 km/h

∴ H is speed is 6 km/h.

---

49. **Answer: b**

Explanation:

Given:

The bar-graph shows the sales of six different brands of blue and green pens in a town on a given day.
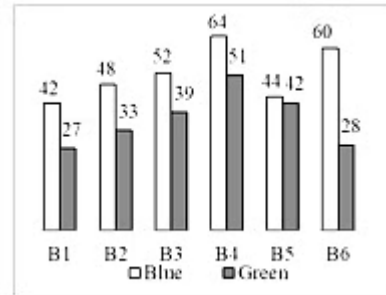
Calculations:

According to the question,

Total number of blue pens = 42 + 48 + 52 + 64 + 44 + 60 = 310

Total number of green pens = 27 + 33 + 39 + 51 + 42 + 28 = 220

Difference in sales of both the pens = 310 – 220 = 90

Difference% = $\frac{90}{220} \times 100$ = 0.409 × 100 = 40.9%

∴ **The total number of blue pens sold on that day of all the six brands taken together is how much percentage more than the total number of green pens sold on that day of all the six brands taken together is 40.9%.**

50. **Answer: b**

Explanation:

Given:

Salary = ₹ 300000

Increased% = 15%

Calculation:

According to the question,

Growth in salary = Salary (1 + Increased%)

⇒ G = 300000 × (1 + 15%)

⇒ G = 300000 × (1 + 0.15)

⇒ G = 300000 × (1.15) = ₹345000

∴ His salary after the increase of 15% will be ₹345000.

---

51. Answer: d

Explanation:

The correct answer is: **To take responsibility for a situation temporarily**

⭐ **Key Points**

- The idiom "Hold the fort" means to have responsibility for something while someone else is absent. (किसी और के अनुपस्थित रहने पर किसी चीज़ की ज़िम्मेदारी लेना)
  - For example- *I'm going abroad for a few weeks, and Raju will hold the fort while I'm away.*
- So, it is clear that the most appropriate meaning of the idiom "Hold the fort" is "**To take responsibility for a situation temporarily**."
- Therefore, the correct answer is option 4.

---

52. Answer: c

Explanation:

The erroneous part of the sentence is: **can has immense positive**

⭐ **Key Points**

- The error here lies in the use of verbs.
- Replace "**has**" with "**have**" to correct the sentence.
- **Have** is used with the pronouns I, you, we, and they and with the plural nouns.
- **Has** is used with he, she, and it.
- In this sentence, the verb is referring to the subject "**your thoughts**".
- Apart from that we always use "**have**" after modal verbs like **can, could, may, might, must, should, shall, will, and would.**
- So, we should use "**have**" in the given sentence.
- From here we can say that the correct answer is **option 3** which contains the error form.

Corrected sentence: *Writing down your thoughts can <u>have</u> immense positive effects on your health.*

---

53. **Answer: c**

Explanation:

The correct answer is: Benign .

⭐ <u>Key Points</u>

- **Detrimental:** Causing harm or damage. (नुकसान या क्षति पहुँचाना)
- Let us look at the meaning of the given words in the options section.
  - Insidious: Gradually and secretly causing harm. (कपटी)
  - Nasty: Bad or very unpleasant. (बहुत खराब)
  - Benign: Pleasant and kind. (सुखद और दयालु)
  - Baneful: Harmful or destructive. (हानिकारक या विनाशकारी)
- From the meaning of the given words, it is clear that the most appropriate antonym of 'Detrimental' is 'Benign'.
- Therefore, the correct answer is option 3.

---

54. **Answer: a**

Explanation:

The correct answer is: Guilty .

⭐ **Key Points**

- **Culpable**: Responsible for something terrible that has happened. (जो कुछ भयानक हुआ है उसके लिए जिम्मेदार)
- Let us look at the meaning of the given words in the options section.
  - Guilty: Ashamed and sorry for doing something wrong. (शर्म आती है और कुछ गलत करने के लिए खेद है)
  - **Irresponsible**: Doing careless things without thinking or worrying about the possible bad results. (संभावित बुरे परिणामों के बारे में सोचे बिना या चिंता किए लापरवाह काम करना)
  - **Immune**: Not affected by something. (किसी चीज से प्रभावित नहीं)
  - **Innocent**: Free from moral wrong; without sin. (नैतिक गलत से मुक्त; बिना पाप के)
- From the meaning of the given words, it is clear that the most appropriate synonym of 'Culpable' is 'Guilty'.
- Therefore, the correct answer is option 1.

---

55. **Answer: a**

Explanation:

The correct answer is: **is still**

⭐ **Key Points**

- If the noun is singular, we must use '**is**', if it is plural or there is more than one noun we must use '**are**'.
- Here in the given sentence, the verb should refer to the noun "**mystery**".
- **Mystery**: Something strange or not known that has not yet been explained or understood. (कुछ अजीब या अज्ञात जिसे अभी तक समझाया या समझा नहीं गया है)
  - **For example-** *The mystery of his disappearance has never been solved.*
- "**Mystery**" is a singular noun and the plural form of it is "**mysteries.**"

- Therefore, the singular verb "**is**" should be used here.
- Hence, the correct answer is **option 1**.

Complete sentence: *The mystery behind the extinction of the dinosaurs is obscure.*

---

56. Answer: d

Explanation:

The correct answer is: **Cryptic**.

⭐ **Key Points**

- **Cryptic**: Having a hidden meaning that is not easy to understand; mysterious. (एक छिपा हुआ अर्थ होना जिसे समझना आसान नहीं है; रहस्यमय)
- Let us look at the meaning of the given words in the options section.
  - **Cloudy**: Darkened by gloom or anxiety. a cloudy mood. (उदासी या चिंता से काला पड़ना)
  - **Mystical**: Having a spiritual meaning or reality that is neither apparent to the senses nor obvious to the intelligence. (एक आध्यात्मिक अर्थ या वास्तविकता होना जो न तो इंद्रियों के लिए स्पष्ट है और न ही बुद्धि के लिए स्पष्ट है)
  - **Fuzzy**: Not clear or not easily heard, seen, or understood. (स्पष्ट नहीं या आसानी से सुना, देखा या समझा नहीं जा सकता)
  - **Definite**: Clearly defined; explicitly precise. (स्पष्ट रूप से परिभाषित; स्पष्ट रूप से सटीक)
- From the meaning of the given words, it is clear that the most appropriate antonym of '**Cryptic**' is '**Definite**'.
- Therefore, the correct answer is option 4.

---

57. Answer: c

Explanation:

The correct answer is: **Apiary**

⭐ Key Points

- **Apiary**: A place where people keep bees, especially a collection of hives kept to provide honey. (मधमक्खियों के पालने का स्थान)
- So, it is clear that '**Apiary**' can be used as a one-word substitute for '**A place where bees are kept**.'
- Therefore, the correct answer is option 3.

⭐ Additional Information

- **Archive**: A collection of historical documents or records providing information about a place, institution, or group of people. (किसी स्थान, संस्था या लोगों के समूह के बारे में जानकारी प्रदान करने वाले ऐतिहासिक दस्तावेजों या अभिलेखों का संग्रह)
- **Hangar**: A big building where planes are kept. (एक बड़ी इमारत जहाँ विमान रखे जाते हैं)
- **Granary**: A large building for storing grains. (अनाज भंडारण के लिए एक बड़ी इमारत)

---

58. **Answer: b**

Explanation:

The correct answer is: **my**

⭐ Key Points

- Let us look at the use of the given options.
  - **I**: We use the pronoun "**I**" when the person speaking is doing the action, either alone or with someone else.
  - **My**: It shows possession or ownership of the noun. It describes something that belongs to the speaker.
  - **Me**: We use the pronoun "**me**" when the person speaking is receiving the action of the verb in some way, either directly or indirectly.
  - **Mine**: It can refer to a singular or plural noun, and it can be used as the subject, object, or complement of a verb or the object of a preposition.
- In the given sentence, the subject is also the speaker and he/she is talking about the **ownership of the lunchbox**.
- Therefore, according to the usage of the pronouns "**my**" should be used here.

- Thus, **option 2** is the correct answer.

Complete sentence: *I think I have left <u>my</u> lunchbox at your house.*

---

59. Answer: d

Explanation:

The correct answer is: **recreation**

⭐ <u>Key Points</u>

- Let us look at the meaning of the given options.
  - **Instalment**: To pay small sums of money at regular intervals over a period of time, rather than paying the whole amount at once. (एक बार में पूरी राशि का भुगतान करने के बजाय नियमित अंतराल पर छोटी राशि का भुगतान करना)
  - **Irritant**: Something that causes trouble or makes you annoyed. (कुछ ऐसा जो परेशानी का कारण बनता है या आपको परेशान करता है)
  - **Theory**: A formal statement of ideas that are suggested to explain a fact or event, or how something works. (विचारों का एक औपचारिक विवरण जो किसी तथ्य या घटना की व्याख्या करने के लिए सुझाया जाता है, या कुछ कैसे काम करता है)
  - **Recreation**: Enjoying oneself and relaxing when someone is not working; a way of doing this. (जब कोई काम नहीं कर रहा हो तो खुद का आनंद लेना और आराम करना)
- The implied meaning of the sentence is: *The lottery is a regular weekly amusement in which the numbers are drawn by a young girl.*
- So, it is clear that according to the meaning of the sentence "**recreation**" will be a best-fitted option.

Therefore, the correct answer is **option 4**, i. e '**recreation**.'

The complete sentence is: *The lottery is a regular weekly <u>recreation</u> where the drawing of the numbers is done by a little girl.*

---

60. Answer: d

Explanation:

The correct answer is: **Both**

⭐ <u>Key Points</u>

- Let us look at the use of the given options.
  - **Any**: It is used to indicate a person or thing that is not particular or specific.
    - **For example-***Any food would be better than nothing at all.*
  - **Either**: Either usually signals a choice between two things.
    - **For example-***Either we go to the movies or the park.*
  - **All**: It refers to each individual in a group of two or more.
    - **For example-***I've been waiting all week to see her.*
  - **Both**: It refers to two people or things together.
    - **For example-***Tom and Mary both enjoy playing basketball.*
- So, in this sentence two people are mentioned "**Paul**" and "**Jenny.**" and two of them are waiting for the same person.
- As we know that "**both**" refers to two people together then it is the best option to choose.
- Therefore, the correct answer is **option 4**.

Complete sentence:*<u>Both</u> Paul and Jenny are waiting for you in their office.*

⭐ <u>Confusion Points</u>

- Some would think that '**both**' and '**all**' mean the same. But in fact, they are delicately different.
- '**Both**' is used for exactly two items while '**all**' is used for referring to more than one item, collectively.

---

61. **Answer: b**

Explanation:

The correct answer is: **up**

⭐ **Key Points**

- "**Look up**" is a phrasal verb which means to try to find a particular piece of information by looking in a book or on a list, or by using a computer.
  - **For example-***I didn't know what 'loquacious' meant and had to look it up in a dictionary.*
- So, according to the subject of the sentence the most appropriate word to fill in the blank is "**up.**"
- Therefore, the correct answer is **option 2**.

Complete sentence:*Anita looked up the word in the dictionary, but she still did not understand it.*

---

62. **Answer: c**

Explanation:

The erroneous part of the sentence is: **because for chemical reactions**

⭐ **Key Points**

- The error here lies in the use of prepositions.
- Replace "**for**" with "**of**" to correct the sentence.
- We use '**for**' to talk about a purpose or a reason for something.
- '**Of**' is a preposition that indicates relationships between other words, such as belonging, things made of other things, things that contain other things, or a point of reckoning.
- "**Because of**" is a preposition comprising two words. It is usually used before a noun, gerund or a pronoun.
- "A because of B" means B caused A to happen.
  - **For example-***Ram was late this morning because of the heavy traffic.*
- From here we can say that "**because of**" should be used here.
- Hence, **option 3** is the correct answer which contains an error in it.

Corrected sentence:*Foods turn brown and crispy when we cook them <u>because of</u> chemical reactions.*

---

63. Answer: a

Explanation:

The correct answer is: Amateur

⭐ **Key Points**

- **Amateur**: A person who takes part in a sport or an activity for pleasure, not for money as a job. (शौक़ीन व्यक्ति)
- So, it is clear that '**Amateur**' can be used as a one-word substitute for '**One who does a thing for pleasure and not as a profession.**'
- Therefore, the correct answer is option 1.

⭐ **Additional Information**

- **Ascetic**: Avoiding physical pleasures and living a simple life, often for religious reasons. (तपस्वी)
- **Abattoir**: A place where animals are butchered; a slaughterhouse. (कसाईखाना)
- **Anarchist**: A person who rebels against any authority, established order, or ruling power. (अराजकतावादी)

---

64. Answer: c

Explanation:

The erroneous part of the sentence is: **common used in bullwhips**

⭐ **Key Points**

- Replace "**common**" with "**commonly**" to correct the sentence.

- **Common** is an adjective which is used to indicate that someone or something is of the ordinary kind and not special in any way.
    - **For example-** *Guilt and forgiveness are themes common to all of her works.*
- **Commonly** is an adverb which means normally or usually.
    - **For example-** *Christopher is commonly known as Kit.*
- An **adjective** is a part of speech that modifies a noun or pronoun. Adjectives usually tell what kind, how many, or which about nouns or pronouns.
- An **adverb** is a part of speech that modifies another adverb, a verb, or an adjective. It is often recognized by the suffix **-ly** at the end of it.
- The implied meaning of the sentence is: *Kangaroo leather is widely used to produce products that must be both robust and flexible, such as bullwhips.*
- So, the adverb "**commonly**" should be used here.
- Therefore, the correct answer is **option 3** which contains an error in it.

Corrected sentence: *Kangaroo leather is used to make items that must be strong and flexible hence it is most <u>commonly </u>used in bullwhips.*

⭐ <u>Confusion Points</u>

- It is not necessary to use "the" before "most" in the given sentence because "most" is being used as an adverb to modify the verb "used."
- "Most" is not being used to compare one thing with others, so it doesn't require the definite article "the."
- In this case, "most commonly" is a set phrase that means "usually" or "frequently," and it is grammatically correct to use "most" as an adverb without "the."

⭐ <u>Mistake Points</u>

- The phrase "used to" can be used in different ways in English. One of the ways is to talk about habitual actions in the past. For example, "I used to play basketball when I was in high school."
- Another way "used to" is used is to talk about the purpose of an object or why it is designed. For example, "This tool is used to open cans." In this case, "open" is not in the -ing form. Instead, we use the base form of the verb (open, make, cut, etc.) after "used to".

- So, in the sentence "Kangaroo leather is used to make items," the word "make" is correctly used in its base form.

---

65. Answer: d

Explanation:

The correct answer is: **Pacified**

⭐ **Key Points**

- **Appeased** means to make somebody calmer or less angry by agreeing to what he/she wants. (शांत करना)
  - **For example**- *Chamberlain tried to appease Hitler with Sudetenland at Munich.*
- Marked option **Pacified** means to make somebody calm or quiet who is angry or upset. (संतुष्ट करना)
  - **For example**- *He pacified his crying child with a bottle.*
- So, It is clear that **'Appeased'** and **'Pacified'** are similar in meaning.
- Therefore the correct answer is **option 4.**

⭐ **Additional Information**

- **Unsatisfied:** Not having been satisfied. (असंतुष्ट)
- **Bugged:** To annoy or worry somebody. (गड़बड़)
- **Dejected:** Unhappy, disappointed, or lacking hope. (उदास किया हुआ)

---

66. Answer: b

Explanation:

The correct answer is: **Sacrifice**

⭐ **Key Points**

- According to English, the correctly spelt word is '**Sacrifice**'.
- **Sacrifice**: A loss of something to give up, usually for the sake of a better cause. (त्याग करना)
  - **For example-***Parents sacrifice time and sleep to take care of their children.*
- The rest of the options are incorrectly spelt.
- Thus, **option 2** is the correct answer.

---

67. **Answer: d**

Explanation:

The correct answer is: **Neither of the political parties has had much**

⭐ Key Points

- The error here lies in the use of verbs.
- Replace '**have**' with '**has**' to correct the sentence.
- According to the rules of English grammar, the pronoun '**neither**' is singular and requires a singular verb.
- The only subject we should use "**has**" with is the third person singular (He/She/It).
- In this given sentence "**Neither of the political parties**" is a singular term and is generally used to talk about a noun or a pronoun.
- As we know a political party is an organization that coordinates candidates to compete in a particular country's elections.
- So, "**has**" should be used in the given sentence.
- Therefore, the correct answer is **option 4** which will improve the underlined part of the given sentence.
- Thus, **option 4** is the correct answer.

Corrected sentence:*Neither of the political parties has had much interest in environmental causes.*

---

68. Answer: a

Explanation:

The correct answer is: **is very expensive**

⭐ **Key Points**

- The idiom "Cost an arm and a leg" means to be extremely expensive or too costly. (अत्यधिक महंगा या बहुत महंगा)
    - For example- *The new suit had cost him an arm and a leg.*
- So, it is clear that the most appropriate meaning of the idiom "Cost an arm and a leg" is "Very expensive."
- Therefore, the correct answer is option 1.

69. Answer: b

Explanation:

The correct answer is: **Sense**

⭐ **Key Points**

- Let us look at the meaning of the given words.
    - **Sacks**: A large bag made of strong cloth, paper, or plastic, used to store large amounts of something. (मजबूत कपड़े, कागज या प्लास्टिक से बना एक बड़ा थैला, जिसमें बड़ी मात्रा में किसी चीज को रखा जाता है)
    - **Sense**: The ability to understand something; the ability to recognize what something is or what its value is. (कुछ समझने की क्षमता; यह पहचानने की क्षमता कि कोई वस्तु क्या है या उसका मूल्य क्या है)
    - **Science**: The study of and knowledge about the physical world and natural laws. (भौतिक दुनिया और प्राकृतिक कानूनों के बारे में अध्ययन और ज्ञान)
    - **Census**: An official count of the people who live in a country, including information about their ages, jobs, etc. (किसी देश में रहने वाले लोगों की एक

आधिकारिक गणना, जिसमें उनकी उम्र, नौकरी आदि के बारे में जानकारी शामिल है)

- The implied meaning of the sentence is: *Her ability to smell is exceptional.*
- So, according to the meaning of the given words '**sense**' is the most appropriate word to fill in the blank.
- Therefore, **option 2** is the correct answer.

Complete sentence: *Her <u>sense</u> of smell is wonderful.*

---

70. Answer: d

Explanation:

The correct answer is: **Let us prepare for the upcoming competitive exams.**

⭐ <u>**Key Points**</u>

- In the given sentence, the are two incorrectly spelt words .
- Let us look at the correct spelling of those words.
- **Uncomng**: The correct spelling is "**Upcoming**" which means something that is scheduled or expected to happen or to be presented or released in the near future. (ऐसा कुछ जो निकट भविष्य में होने की उम्मीद है)
  - **For example-** *Upcoming events will happen in the near future.*
- **Comptitive**: The correct spelling is "**Competitive**" which means involving people or organizations competing against each other. (एक दूसरे के खिलाफ प्रतिस्पर्धा करने वाले लोगों या संगठनों को शामिल करना)
  - **For example-** *The travel industry is a highly competitive business.*
- Therefore, **option 4** is the correct answer which rectifies the incorrectly spelt words in the given sentence.
- Thus, the correct answer is **option 4.**

Corrected sentence: *Let us prepare for the upcoming competitive exams.*

---

71. Answer: d

Explanation:

The correct answer is: **needs**

⭐ Key Points

- In English "**one of the**" is a singular term and is generally used to talk about a noun or a pronoun.
- **Need** means a situation in which you must have or do something. (ऐसी स्थिति जिसमें आपको कुछ करना या करना चाहिए)
- In the sentence "One of the most basic _ _ _ _ _ _ of a human is food," the noun following "one of the" should be in the plural form.
- The plural form of the noun "need" is "**needs**," which agrees with the subject "one of the most basic" and completes the sentence grammatically.
- Therefore, "**needs**" is the most appropriate option to fill in the blank.
- Thus, **option 4** is the correct answer.

Complete passage: *One of the most basic (1) needs of a human is food. Food is grown in various parts of the world according to the climatic (2) _ _ _ _ _ _ but one thing that all kinds of crops need (3) _ _ _ _ _ _ an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.*

⭐ Additional Information

- **Needed**: The past form of the verb "need. and only used in the past tense sentences.
- **Needer**: The person who needs something.
- **Needful**: To do what is necessary in a situation.

---

72. **Answer: c**

Explanation:

The correct answer is: conditions

⭐ <u>Key Points</u>

- Let's look at the meaning of the given words.
  - **Weather**: The climate at a certain place and time, how much wind, rain, sun, etc. there is and how hot or cold it is. (मौसम)
  - Report: To give people information about what you have seen, heard, done, etc. (प्रतिवेदन)
  - Conditions: The physical situation that someone or something is in and affected by. (परिस्थिति)
  - Terms: The conditions that are part of an agreement or arrangement, or the features of an activity or idea. (शर्तें)
- So, as per the meaning of the given words "conditions" is the most appropriate option.
- The implied meaning of the sentence is: *Food is cultivated in different places of the world depending on the environment...*
- Therefore, the correct answer is option 3.

Complete passage: *One of the most basic (1) needs of a human is food. Food is grown in various parts of the world according to the climatic (2) conditions but one thing that all kinds of crops need (3) _____ an exception is water. We all know (4) _____ water, sunlight, and nutrition from the soil (5) _____ key to a plant's growth.*

73. **Answer: c**

Explanation:

The correct answer is: without

⭐ <u>Key Points</u>

- Let's look at the meaning of the given prepositions.
  - **With**: In the company of somebody/something; in or to the same place as somebody/something.
  - Above: In or to a higher place than: over.
  - Without: With the absence, omission, or avoidance of; not with.

- Over: Straight above something, but not touching it.
- So, as per the meaning of the given words "without" is the most appropriate option.
- The implied meaning of the sentence is: *Water is something that all crops require with no exception.*
- Therefore, the correct answer is option 3.

Complete passage: *One of the most basic (1) needs of a human is food. Food is grown in various parts of the world according to the climatic (2) conditions but one thing that all kinds of crops need (3) without an exception is water. We all know (4) _ _ _ _ _ _ water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.*

74. **Answer: b**

Explanation:

The correct answer is: that

⭐ **Key Points**

- Let's look at the meaning of the given words.
  - **Then**: At a particular time in the past or in the future.
  - That: Used for talking about a person or thing already known or mentioned.
  - What: Used to ask for information about people or things.
  - When: Use to ask what time something happened or will happen.
- So, as per the meaning of the given words "that" is the most appropriate option.
- Therefore, the correct answer is option 2.

Complete passage: *One of the most basic (1) needs of a human is food. Food is grown in various parts of the world according to the climatic (2) conditions but one thing that all kinds of crops need (3) without an exception is water. We all know (4) that water, sunlight, and nutrition from the soil (5) _ _ _ _ _ _ key to a plant's growth.*

75. Answer: d

Explanation:

The correct answer is: are

⭐ **Key Points**

- Let's look at the use of the given verbs.
  - **Been**: The verb 'been' is always used with has/have/had, and we use it in the perfect tense.
  - Be: Be as an auxiliary verb is used to form continuous tenses and the passive form.
  - Is: Used with a singular noun in the present tense.
  - Are: Used with plural nouns or when more than one noun is mentioned in the present tense.
- In the sentence, **three nouns** are mentioned, those are '**water**', '**sunlight**' and '**nutrition**'.
- So, as per the use of the given verbs "are" is the most appropriate option.
- Therefore, the correct answer is option 4.

Complete passage: *One of the most basic (1) needs of a human is food. Food is grown in various parts of the world according to the climatic (2) conditions but one thing that all kinds of crops need (3) without an exception is water. We all know (4) that water, sunlight, and nutrition from the soil (5) are key to a plant's growth.*
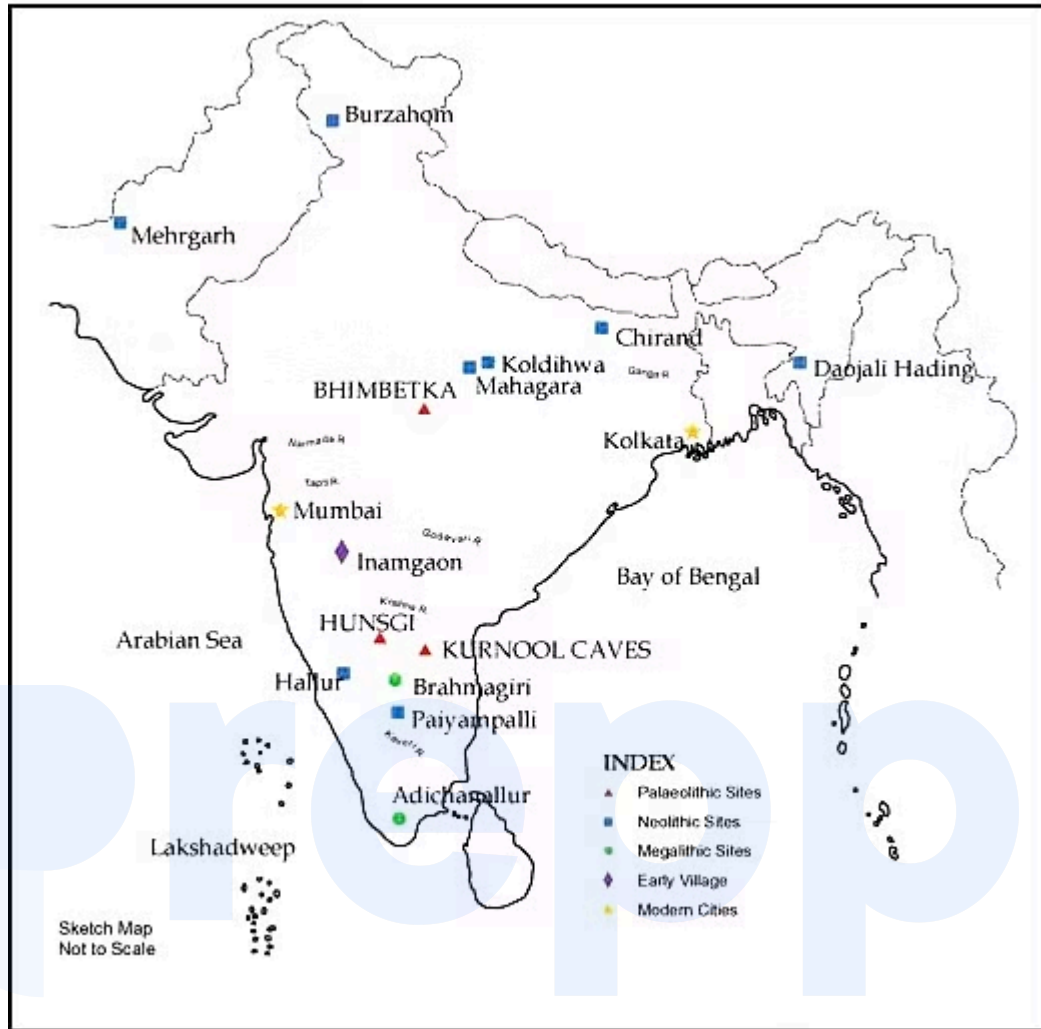
76. Answer: d

Explanation:

The correct answer is **3000**

⭐ **Key Points**

- The huge stones that served as either burial sites or commemorative memorials in the early periods are said to be megaliths.
- They are also called memorial stones as they are used for the graves of early men.
- These stones are found in various parts of the states in the Indian subcontinent, namely Maharashtra, Karnataka, Tamil Nadu, Telangana, Kerala, and also in Andhra Pradesh.
- They were found from 3000 to 5000 BC.
- Most of the megaliths' structures were constructed to serve the purpose of burial and post-commemorative rituals.
- Megaliths are found mostly in the southern part of India.
- It can be found in diverse nature, ranging from Menhirs, rock-cut stone alignments, etc.
- A few examples of megaliths in India are Nilaskal in Karnataka, Jupoani in Maharashtra, and Nilurallu in Andhra Pradesh.
- An ancient temple is a structure used to worship a god or gods, particularly in Buddhism and Hinduism, as well as in ancient Greece and Rome.
- Ancient cities are the cities that belong to the period in history before the end of the Roman empire.

MAP: Some Important Archaeological Sites

77. **Answer: d**

Explanation:

The correct answer is **Pakistan.**

⭐ **Key Points**

- Ladakh is the **only union territory** to have three international boundaries with three different countries.
- **Ladakh** has international borders with Pakistan, China and Afghanistan.

⭐ <u>Mistake Points</u>

- **Pakistan-occupied Kashmir** is **located to the west of Ladakh** and the **two regions share a Line of Control (LoC), which serves as a de facto border between India and Pakistan.**

⭐ <u>Additional Information</u>

- Myanmar:-
    - It is bordered by Bangladesh and India to its northwest, China to its northeast, Laos, and Thailand to its east and southeast, and the Andaman Sea and the Bay of Bengal to its south and southwest.
        - Capital- Naypyidaw.
    - It has a population of about **54 million, most of whom are Burmese speakers, although other languages are also spoken.**
    - The biggest city is Yangon (Rangoon).
    - The main religion is Buddhism.
- Bhutan:-
    - Thimphu is the capital of Bhutan and also its largest city.
    - It was adopted as the country's capital in 1955.
    - It is one of the countries which has never been colonized.
    - Located in the eastern Himalayas, Bhutan is a landlocked country with Tibet in the north and surrounded by the Indian states of Assam and West Bengal in the south and east respectively and Sikkim in the west.
- Nepal:-
    - The capital of Nepal is Kathmandu.
    - National Currency - Nepali rupees
    - Nepal has a bicameral Parliament system.
        - National Assembly
        - House Of Representatives
    - Nepal is a country in South Asia. It is mainly in the Himalayas, but also includes parts of the Indo-Gangetic Plain.
    - It is the 49th largest country by population and the 93rd largest country by area.

78. Answer: d

Explanation:

The correct answer is <u>**Steppes**</u>

⭐ <u>**Key Points**</u>

- Temperate grasslands have cold winters and warm summers with some rain
- The grasses die back to their roots annually and the soil and the sod protect the roots and the new buds from the cold of winter or dry conditions
- A few trees may be found in this biome along the streams, but not many due to the lack of rainfall.
- Examples of temperate grasslands include Eurasian steppes, North American prairies, and Argentine pampas

⭐ <u>**Additional Information**</u>

- These grasslands include the following grasslands:
  - The prairie and Pacific - North America
  - The pampas - Argentina, Brazil, Uruguay
  - The steppes - Europe
  - The mid-latitudinal zone means the zone that lies between 30°-60° of latitude.
  - The temperate grasslands mainly consist of grass or shrubs with several trees.
  - They receive less rainfall.

79. Answer: a

Explanation:

The correct answer is <u>**Aparna Satheesan**</u>

⭐ <u>**Key Points**</u>

- Aparna Satheesan:-
  - Celebrated dancer Aparna Satheesan, an exponent in Bharatanatyam and Kuchipudi,
  - She is honoured with the prestigious National Nritya Shiromani award for her outstanding performance, extraordinary contribution, and excellent service to the promotion, preservation, and popularization of the heritage of Indian Performing Arts in the field of **Kuchipudi dance** across the world.
  - The award was conferred on the week-long 13th Cuttack Mahotsav, an international festival for Dance and Music in January 2022, by the Utkal Yuva Sanskrutik Sangh, Odisha.
  - Aparna has also showcased a solo Kuchipudi performance at the event in the millennium city on January 4th, where she presented her traditional choreographies in Kuchipudi.

⭐ **Additional Information**

- **Bhavana Reddy:-**
  - She is an Indian classical Kuchipudi dancer, singer, songwriter, and guru/teacher.
  - She is the younger daughter and disciple of renowned dancing couple Raja Radha Reddy and Kaushalya Reddy.
- Vyjayanthi Kash i:-
  - Vyjayanthi Kashi is an Indian classical Kuchipudi dancer.
  - She is a present member of Central Sangeet Natak Akademi.
- **Yamini Krishnamurthy:-**
  - Mungara Yamini Krishnamurthy, an Indian dancer who specializes in Kuchipudi and Bharatanatyam, was born on December 20, 1940.
  - In Madras, Yamini Krishnamurthy made his debut in 1957.
  - She is honoured to serve as the Tirumala Tirupati Devasthanam's Asthana Nartaki (resident dancer).
  - She was also referred to as the "torch bearer" of the Kuchipudi dancing style.
  - The Padma Shree (1968), Padma Bhushan (2001), and Padma Vibhushan (2016), three of the highest civilian honours bestowed by the Republic of India, were among the many honors she received for her dancing career.

80. **Answer: b**

Explanation:

The correct answer is <u>Gymnosperm</u>.

⭐ <u>Key Points</u>

- The gymnosperms (Gymnos: naked, Sperma: seeds) are planted in which the ovules are not enclosed by any ovary wall and remain exposed, both before and after fertilization.
- Gymnosperms include medium-sized trees or tall trees and shrubs.
- Gymnosperms are mainly classified into two groups:
  - Cycadophyta (Lower gymnosperm)
  - Coniferophyta (Higher gymnosperm)
- Cycas, Pinus and Ginkgo are examples of Gymnosperm.

⭐ <u>Additional Information</u>

- Thallophyta
  - Kingdom Plantae is divided into five groups- Algae, Bryophyta, Pteridophyta, Gymnosperm, and Angiosperm.
  - Algae
    - The plant body is not differentiated from roots, stems, and leaves.
    - They are also known as Thallophyta.
- Bryophyta
  - These are small terrestrial plants.
  - They show differentiation in the body design, with stem, leaf-like structures, and root-like structures.
- Pteridophyta
  - The plant body is differentiated into roots, stems, and leaves, apart from having a specialized tissue for conduction.
- Gymnosperms
  - Gymnosperms are plants with naked seeds.
- Angiosperms

- Angiosperms are seed-bearing plants. Seeds develop inside tissues that get modified to form the fruit of the plant.

---

81. **Answer: c**

Explanation:

The correct answer is <u>Hyder Ali</u>

⭐ <u>Key Points</u>

- Hyder Ali was the monarch of Mysore.
- He was the father of the "Tiger of Mysore".
- Tipu Sultan is commonly referred to as the "Tiger of Mysore".
- Hyder Ali governed from 1761 to 1782.
- In 1761 he is crowned king of Mysore.

⭐ <u>Additional Information</u>

- The kingdom of Mysore was founded by two brothers: Yadurya and Krishnarya.
- In the 18th century, Hyder Ali and Tipu Sultan were rulers for a 40-year period.
- At that time, Maharaja H.H. Jaya Chamaraja Wadiyar was still in charge of the state.
- He charged Up till Mysore joined the Indian Republic on January 26, 1950,
- In 1764, Hyder Ali captured Bednor (Haidarnagar) and made it his capital.
- In 1757, he was the commander of the army.
- There are four Anglo-Mysore wars that happened:

First Anglo-Mysore War	From 1767 to 1769	Harry Verelst-Governor of Bengal	Treaty of Madras
Second Anglo-Mysore War	From 1780 to 1784.	Warren Hastings-Governor General	Treaty of Mangalore
Third Anglo-Mysore War	From 1790 to 1792	Lord Cornwallis- British Governor	Treaty of Seringapatam
Fourth Anglo-Mysore War	From 1798 to 1799	Lord Wellesley-Governor General	Treaty of Seringapatam

82. **Answer: a**

Explanation:

The correct **Bhagat Singh.**

⭐ **Key Points**

- On December 17, 1928, revolutionaries Bhagat Singh and Shivaram Rajguru shot and killed Police Assistant Superintendent John Saunders.
- This case was called the Lahore Conspiracy Case.
- They were supported in this act by their compatriots Sukhdev Thapar and Chandrashekhar Azad.
- However, their initial target was not Saunders, but police superintendent James Scott, who directed his men to lathi the demonstrators leading to the death of nationalist leader Lala Lajpat Rai.
- Bhagat Singh, Sukhdev, and Rajguru were later hanged to death.
- Bhagat Singh, Rajguru, and Sukhdev were sentenced to death in the Lahore conspiracy case and were ordered to be hanged on 24 March 1931.
- The timetable was pushed ahead by 11 hours and the three were hanged at 7:30 p.m. in Lahore prison on 23 March 1931.

⭐ **Additional Information**

- **Shri Aurobindo Ghose** was a philosopher, yogi, guru, poet, and nationalist of India.
  - He criticized Moderate politics through a series of articles.
  - From 1902 to 1910 Aurobindo took part in the struggle to free India from the British Raj (rule)
  - His major works include Essays on the Gita (1922), Collected Poems and Plays (1942), The Synthesis of Yoga (1948), The Human Cycle (1949), The Ideal of Human Unity (1949), Savitri: A Legend and a Symbol (1950), and On the Veda (1956).
- Shaheed Madan Lal Dhingra assassinated William Hutt Curzon Wyllie, a British official.
  - He was an Indian revolutionary independence activist.
- **Basant Kumar Biswas**, Amir Chand, and Avadh Behari were convicted and executed in the trial of this Delhi Conspiracy Case.

---

83. **Answer: d**

Explanation:

The correct answer is **Iron**

⭐ **Key Points**

- Iron:-

- Iron is a chemical element with symbol Fe and atomic number 26.
- It is a metal that belongs to the first transition series and group 8 of the periodic table.
- It is by mass the most common element on Earth, right in front of oxygen, forming much of Earth's outer and inner core.
- Iron is a mineral that the body needs for growth and development.
- Your body uses iron to make haemoglobin, a protein in red blood cells that carries oxygen from the lungs to all parts of the body.

- **Periodic table:-**
  - It is a tabular presentation of the chemical elements, organized on the basis of their properties.
  - Mendeleev's Periodic Table (1869):
    - It is based upon Mendeleev's periodic law, which states, "Properties of the elements are the periodic function of their atomic masses."
    - Mendeleev is known as the father of the periodic table.
  - Modern Periodic Law
    - The physical and chemical properties of the elements are the periodic function of their atomic numbers.
  - Modern Periodic Table:
    - It is a graphical representation of the Aufbau principle.
    - It is based on the electronic configuration of elements and contains 118 elements.
    - There are 7 periods and 18 groups.
    - Modern periodic table is classified as:
      - i. s-block;
      - ii. p-block;
      - iii. d-block;
      - iv. f-block

⭐ <u>Additional Information</u>

- **Fluorine:-**
  - It is the most electronegative element and also the most reactive non-metal.
  - Fluorine is the most electronegative element.

- Fluorine has an electronegativity of 3.98 on the Pauling Electronegativity Scale and a valence of 1.
- A fluorine atom needs one electron to fill its outer electron shell and achieve stability, which is why free fluorine exists as the F- ion.

- Oxygen:-
  - It is a chemical element with the symbol O and atomic number 8.
  - It is a member of the chalcogen group in the periodic table, a highly reactive nonmetal, and an oxidizing agent that readily forms oxides with most elements as well as with other compounds.

- Fermium:-
  - Fermium is an actinide series radioactive metal with the atomic number 100.
  - Fermium does not occur naturally and was discovered in the debris of the first hydrogen bomb explosion in 1953.

---

84. **Answer: a**

Explanation:

The correct answer is <u>Veena</u>.

⭐ <u>Key Points</u>

- **Chitti Babu** was a classical musician from India, and one of the greatest **Veena** artistes, in the Carnatic Music genre of South India, who became a legend in his own lifetime.

⭐ <u>Additional Information</u>

- Famous Guitar artists in India:
  - Baiju Dharmajan.
  - Amyt Datta.
  - Susmit Sen.
  - Rex Vijayan.
  - Kapil Srivastava.
- Famous Veena artists in India:

- Jayanthi Kumaresh.
  - Asad Ali Khan.
  - E. Gayathri.
  - S. Balachander.
  - Chitti Babu.
- Famous **Sitar** artists in India:-
  - Pt. Ravi Shankar, Shahid Parvez Khan, Budhaditya Mukherjee, Anushka Shankar.
- Famous Santoor artists in India :-
  - Shiv Kumar Sharma

---

85. Answer: d

Explanation:

The correct answer is<u>Mumbai to Thane</u>.

⭐ <u>Key Points</u>

- India's first rail run on Mumbai – Thane route in 1853.
- It was the first passenger train to run in India.
- It had three locomotives – Sahib, Sultan, and Sindh, and 14 carriages.
- A distance of 34 km was covered by the train.
- Based on the success of this rail, the launch of Eastern railway in 1854 and South railway in 1856.

⭐ <u>Additional Information</u>

- The Indian Railways began its operations from 16 April 1853.
- The Railway Board is the apex body of the Indian Railways.
- It reports to the Parliament of India through the Ministry of Railways headed by the Railway Minister of India.
- Its headquarters New Delhi, India.
- The current Railway Minister of India isAshwini Vaishnaw.
- Chairman & Chief Executive Officer of Railway Board: **Shri Anil Kumar Lahoti**

86. **Answer: a**

Explanation:

The correct answer is <u>Yuvraj Singh</u>

⭐ <u>Key Points</u>

- Yuvraj Singh is the author of "The Test of My Life: From Cricket to Cancer and Back".
- He was known as the bad boy of Indian Cricket but at the same time was the most loved cricketer after Sachin Tendulkar.
- Yuvraj has played well and many times he had proven his position as a top player.
- Yuvraj Singh, who successfully battled lung cancer a few years ago, has come up with his ideas in this book and overcoming what actually means.
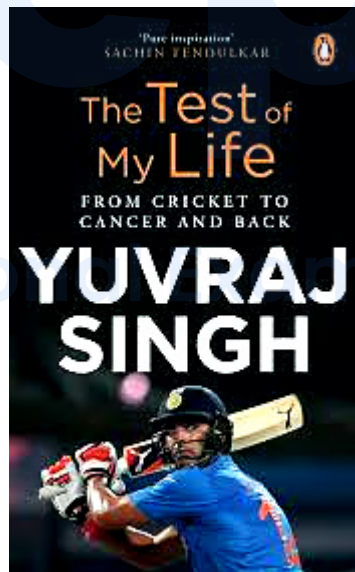
⭐ <u>Additional Information</u>

- **Zaheer Khan** is an Indian former professional cricketer who played all forms of the game for the Indian national team from 2000 till 2014. He is a fast-medium left-arm bowler. He was t**he second-most successful Indian pace bowler in Test cricket, behind Kapil Dev**.

- Dutee Chand is an Indian professional sprinter and current national champion in the women's 100 meters event. She is the first Indian to win a gold medal in a 100m race in a global competition.
- Neeraj Chopra is an Indian track and field athlete who is the reigning Olympic champion and world championship silver medalist in the javelin throw. He is the first Asian athlete to win an Olympic gold medal in the men's javelin throw.

---

88. **Answer: a**

Explanation:

The correct answer is <u>**Prajakta Koli**</u>.

⭐ <u>Key Points</u>

- Young Indians are today become the leading voice to make the world more sustainable.
- Leading content creator and actor, Prajakta Koli , who embraces the moniker MostlySane, has become the first United Nations Development Programme India Youth Climate Champion.
- As a part of her responsibilities, Prajakta will now be entrusted with interacting with young minds.
- Raising awareness on issues like global warming, climate crisis, biodiversity loss, and their impacts, because tremors of these issues are being felt by all sections of society, including poor and marginalized communities.

⭐ <u>Additional Information</u>

- Ananya Pandey
  - She is an Indian female actress. She debuted in the industry as Student of the Year 2.
- Amit Bhadana
  - He is a YouTuber and content creator. He was the second Indian Youtuber to cross 10 million subscribers on Youtube.
- Bhuvan Bam
  - He is a YouTuber and content creator. He was the first Indian Youtuber to cross 10 million subscribers on Youtube.

---

89. Answer: b

Explanation:

The correct answer is<u>the United Kingdom</u>.

⭐ <u>Key Points</u>

- The **Cabinet system of** the Indian Constitution is **taken from** the British Constitution. **Cabinet: The cabinet** is a government body in which the real executive power
- Apart from the Parliamentary form of government, there are other features that are adopted from the British Constitution such as the Rule of Law, Legislative procedure, Single citizenship, Cabinet system, Prerogative writs, Parliamentary privileges, Bicameralism.

⭐ <u>Additional Information</u>

- Australia
  - Concurrent list
  - Freedom of trade, commerce, and intercourse
  - Joint-sitting of the two Houses of Parliament
- France
  - Republic
  - Ideals of liberty, equality, and fraternity in the Preamble
- South Africa

- Procedure for amendment in the Indian Constitution
- Election of members of Rajya Sabha

---

90. **Answer: a**

Explanation:

The correct answer is <u>The garbhagriha is always located directly under the tallest tower.</u>

⭐ **Key Points**

- Nagara or North Indian Temple Style:
    - Nagara (in North India) is associated with the land between the Himalayas and Vindhyas.
    - The Nagara style is associated with the land between the Himalayas and Vindhyas, the Dravida style with the land between the Krishna and Kaveri rivers, while the Vesara style is sometimes associated with the area between the Vindhyas and the Krishna river.
    - In North India, it is common for an entire temple to be built on a stone platform with steps leading up to it.
    - It does not usually have elaborate boundary walls or gateways.
    - While the earliest temples had just one tower or shikhara, later temples had several.
    - The garbhagriha is always located directly under the tallest tower.
    - There are many subdivisions of nagara temples depending on the shape of the shikhara.
    - The second major type of architectural form in the nagara order is the phamsana, which tends to be broader and shorter than the Latina ones.
    - Their roofs are composed of several slabs that gently rise to a single point over the centre of the building, unlike the Latina ones which look like sharply rising tall towers.
    - The third main sub-type of the nagara building is generally called the valabhi type.

○ These are rectangular buildings with a roof that rises into a vaulted chamber.

⭐ <u>Additional Information</u>

- Dravida Or South Indian Temple Style
  - ○ Unlike the nagara temple, the Dravida temple is enclosed within a compound wall.
  - ○ The front wall has an entrance gateway in its center, which is known as a gopuram.
  - ○ The shape of the main temple tower known as vimana in Tamil Nadu is like a stepped pyramid that rises up geometrically rather than the curving shikhara of North India.
  - ○ It is common to find a large water reservoir, or a temple tank, enclosed within the complex.
  - ○ Subsidiary shrines are either incorporated within the main temple tower or located as distinct, separate small shrines beside the main temple.
  - ○ Kanchipuram, Thanjavur or Tanjore, Madurai, and Kumbakonam are the most famous temple towns of Tamil Nadu, where, during the 8th-12th centuries, the role of the temple was not limited to religious matters alone.
- The Vesara Style:-
  - ○ It is a hybrid temple architecture. It has features of both the Nagara and Dravidian style of temple architecture.
  - ○ In particular, the shape of the superstructure over the sanctum is usually pyramidal in profile, and shorter than the northern shikhara tower.
  - ○ In plan, the walls and superstructure are broadly circular, or a straight-sided cone, though its geometry is based on rotating a square imposed on a circle.

---

91. **Answer: c**

Explanation:

The correct answer is <u>**Muhammad Ghori**</u>.

⭐ <u>Key Points</u>

- Second Battle of Tarain.
  - The Second Battle of Tarian (Taraori) was again fought between the Ghurid army of Mohammed Ghori and the Rajput army of Prithviraj Chauhan.
  - The battle took place in 1192 A.D near Tarain. In this battle, Prithviraj Chauhan was defeated by Mohammed Ghori.
  - The Second Battle of Tarain is regarded as a turning point in the history of India as it resulted in Muslim conquest of India.
  - Muhammad Ghori appointed Qutb-ud-din Aybakas his viceroy of his territories in India.
  - Qutb-ud-din established the Delhi Sultanate and became the first Muslim Sultan of Delhi after the death of Muhammad of Ghor.

⭐ <u>Additional Information</u>

- The First Battle of Tarain was fought between The Ghurids (Muzz-Ad-din Mohammad Ghori) against The Chahamanas on 13th November 1191.
- The Ghurids (Muzz-Ad-din Mohammad Ghori) were represented by Mu'izz-Ad-Din Mohammad Ghori's Army and The Chahamanana was represented by Prithviraj Chauhan.
- The First Battle of Tarain was fought at Tarain presently (Taraori, Haryana).
- The Ghurids king (Mu'izz-Ad-Din Mohammad Ghori) and his Army captured the Tabarhindah Fort (Presently Bathinda), which was presumably under The Chahamana's control.
- In 1191, Prithviraj Chauhan marched against The Ghurids (Ghori's) Army when he got the news of the Invasion of The Ghurids Army he moved with his Infantry, Cavalry force, and an Elephant Force.
- The Chahamanas king was supported by a number of Contemporary rulers, whom Minhaj describes as "The Ranas of Hind".
- Some of the other Rulers that included in the Battle were Govind Rai, The Ruler of Delhi. Sirhindi states that Govind Rai, seated on an elephant, was at the frontline, he was the Commander-in-Chief of Prithviraj Chauhan's Army.
- The Ghurids were defeated by The Chahamanas in the First Battle of Tarain and Mu'izz ad-Din Mohammad Ghori was assumed that would have died or

captured in the battle.

---

92. **Answer: b**

Explanation:

The correct answer is <u>Narendra Singh Tomar</u>.

⭐ <u>Key Points</u>

- **Narendra Singh Tomar**
  - The Farm Laws Repeal Bill, 2021 was introduced in Lok Sabha on November 29, 2021, by the Minister of Agriculture and Farmers' Welfare, Mr. Narendra Singh Tomar.
  - Farm Bill 2020 provides an alternative platform for farmers to sell their produce in the open market .
  - Now the farmer is free to sell his products to anyone else he will.
  - Thus, they can earn profit by selling crop products at a higher price.

⭐ <u>Additional Information</u>

- Rajnath Singh
  - **Rajnath Singh is an Indian politician serving as the Defence Minister of India**. He is currently the Deputy Leader of the House Lok Sabha. He is the former President of the Bharatiya Janata Party. He has previously served as the Chief Minister of Uttar Pradesh and as a Cabinet Minister in the Vajpayee Government
- Amit Anil Chandra Shah
  - **Amit Anil Chandra Shah** is an Indian politician currently serving as the Minister of Home Affairs and the first Minister of cooperation of India. He served as the President of the Bharatiya Janata Party from 2014 to 2020. He has also served **as chairman of the National Democratic Alliance since 2014**.
- Dharmendra Pradhan
  - **Dharmendra Pradhan** is an Indian politician serving as th**e Minister of Education and Minister of Skill Development and Entrepreneurship in the**

Government of India. He has also been the Minister of Petroleum & Natural Gas and Minister of Steel. Pradhan was promoted to Cabinet Minister on 3 September 2017.

---

93. Answer: b

Explanation:

The correct answer is __recess__

⭐ Key Points

- recess
  - A recess is a break during the parliamentary session (year) in which neither the House of Commons or the House of Lords meets to conduct business .
  - There are usually several recesses throughout a session and usually include Christmas, Easter and Summer. Recess is formally known as a periodic adjournment.

⭐ Additional Information

- adjournment
  - **In parliamentary procedure, an adjournment** ends a meeting. It could be done using a motion to adjourn. A time for another meeting could be set using the motion to fix the time to which to adjourn. This motion establishes an adjourned meeting.
- dissolution
  - The **dissolution** of a legislative assembly is the mandatory simultaneous resignation of all of its members, in anticipation that a successive legislative assembly will reconvene later with possibly different members. In a democracy, the new assembly is chosen by a general election.
- A cut motion
  - **A cut motion** is a special power vested in members of the Lok Sabha to oppose a demand being discussed for specific allocation by the government.

94. Answer: c

Explanation:

The correct answer is.**1. 22m**

⭐ **Key Points**

- These are the inside edges of the crease markings, which shall be at right angles to the popping crease at a distance of 1.22m (4 feet 4 inches) to either side of an imaginary line joining the centers of the two middle stumps.
- The popping crease, which is the back edge of the crease marking, shall be in front of and parallel to the bowling crease and shall be 4 ft/1.22 m from it in total.
- The popping crease is in front of and parallel to the bowling crease. It is 1.22m from the bowling crease and is marked to a minimum of 1.83m on either side of the two middle stumps and is unlimited in length.

-
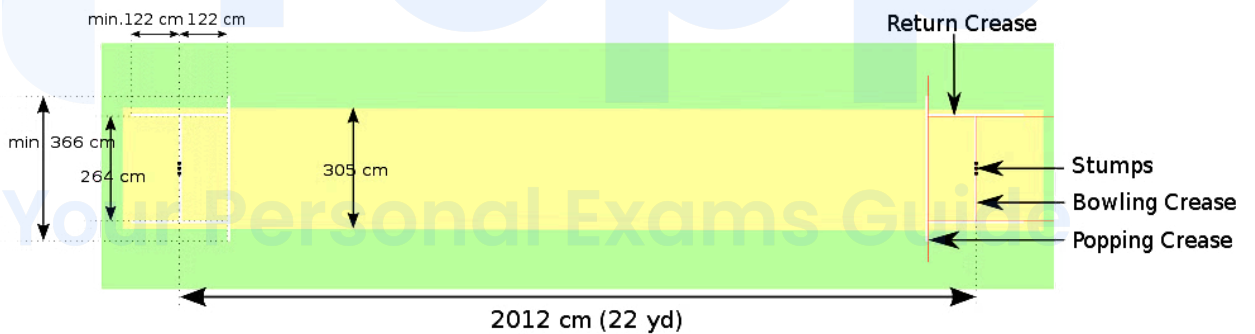
95. Answer: a

Explanation:

The correct answer is**Arunachal Pradesh**

⭐ **Key Points**

- The Dree Festival is an agricultural festival celebrated by the Apatani tribes of Arunachal Pradesh
- Every year, it is observed on the 5th of July with great fervour and zest by the Apatanis.
- The impressive celebration takes place at Ziro in Arunachal Pradesh
- Dree is celebrated in order to bring a bountiful harvest season , hence, Apatani offers prayers to the four Gods they follow - Tamu, Harniang, Metii, and Danyi.
- This three-day-long agricultural festival is joyously celebrated with traditional clothes worn by women and children.

⭐ **Additional Information**

Sates	Festivals
Arunachal Pradesh	Dree Festival, Sangken
Assam	Dehing Tea Patkai, Bihu, Majuli
Manipur	Yaosang, Chavang Kut
Meghalaya	Nongkrem, Behdeinkhlam, Wangala
Mizoram	Chapchar Kut, Pawl Kut, Mim Kut
Nagaland	Moatsu, Aoleang, Sekrenyi Naknyulem, Tokhu Emong
Sikkim	Bumchu, Losar, Saga Dawa, Losoong
Tripura	Kharchi Puja, Gari Puja, Pilak Asokastami

---

96. **Answer: b**

Explanation:

The correct answer is the <u>base year</u>.

⭐ **Key Points**

- GDP is the market value of all the final goods and services produced within a country for a given time period.
  - Real GDP is a measurement of economic output that accounts for the effects of inflation or deflation.
  - The difference between nominal GDP and real GDP is the adjustment for inflation.
  - Since nominal GDP is calculated using current prices, it does not require any adjustments for inflation.
  - The base year of the national accounts is chosen to enable inter-year comparisons. It gives an idea about changes in purchasing power and allows the calculation of inflation-adjusted growth estimates.

⭐ <u>Important Points</u>

- Real GDP :
  - Real GDP is said to be the value of all goods and services determined in an economy after taking into account the rate of inflation.
  - In other words, it is the inflation-adjusted value of goods and services produced in an economy in a year; therefore it is also known as inflation-adjusted gross domestic product.
  - Real GDP in addition to inflation, also takes into account deflation.
  - The Real GDP formula can be represented as,
    - Real GDP = Nominal GDP / Deflator
- Nominal GDP:
  - Nominal gross domestic product (GDP) is the value of all the final goods and services at current market prices.
  - In other words, it is the GDP calculated at the current market prices.
  - It takes into account factors such as inflation, price changes, changing interest rates, and money supply at the time of determining GDP.
  - The rise in inflation increases the nominal GDP.
  - The Nominal GDP formula can be represented as,
- Nominal GDP = Real GDP x GDP Deflator.

---

97. **Answer: c**

Explanation:

The correct answer is **Bhagirathi and Alaknanda**

⭐ **Key Points**

- Devprayag is a town and a nagar panchayat in Tehri Garhwal District in the state of Uttarakhand, India, and is the final one of the Panch Prayag of Alaknanda River where Alaknanda meets the Bhagirathi river and both rivers thereafter flow on as the Ganges river or Ganga
- A beautiful showcase of traditions, myths and mysticism.
- , Devprayag is the place where the holy rivers Bhagirathi and Alaknanda meet, merge into one and take the name Ganga, making it a unique pilgrimage
- . It is believed that Lord Rama and his father King Dasharath (from the epic Ramayana) performed penance here.

⭐ **Additional Information**

Name of Panch Prayag	At confluence of
Devprayag	Alaknanda and Bhagirathi river
Karnaprayag	Alaknanda and Pindar river
Nandprayag	Alaknanda and Nandakini river
Rudraprayag	Alaknanda and Mandakini river
Vishnuprayag	Alaknanda and Dhauliganga river

98. **Answer: c**

Explanation:

The correct answer is <u>Seven.</u>

⭐ <u>Key Points</u>

- For the purpose of **census 2011, a person aged seven and above, who can both read and write with understanding in any language, is treated as literate.**
- A person, who can only read but cannot write, is not literate.
- In the censuses prior to **1991, children below five years of age were necessarily treated as illiterates.**
- After the 2011 census, **the literacy rate in India 2011 was found to be 74.04%. Compared to the adult literacy rate here the youth literacy rate is about 9% higher**

⭐ <u>Additional Information</u>

- Census 2011:
  - It is the 15th National Census Survey conducted by the Census Organization of India.
  - Shri C. Chandramouli is the Commissioner and Registrar General of the Census of India 2011.
  - As per the Census of India 2011, the population density of India was 382 per square km.
  - The Indian Census is the most credible source of information on Demography (Population characteristics), Economic Activity, Literacy and Education, Housing Household Amenities, Urbanisation, Fertility, Mortality, etc.
  - Census was introduced in India during the era of Lord Mayo in the year 1872. It came into force in 1881.
  - The slogan of census 2011 was 'Our Census, Our future'.
  - The population of the nation as per the provisional figures of Census 2011 was 1210.19 million of which 623.7 million (51.54%) were males and 586.46

million (48.46%) were females. Uttar Pradesh is the most populous state in India its population is more than the population of Brazil.

---

99. **Answer: b**

Explanation:

The correct answer is <u>Recommended Dietary Allowances</u>

⭐ <u>Key Points</u>

- Recommended Dietary Allowances (RDAs) are the levels of intake of essential nutrients that, on the basis of scientific knowledge, are judged by the Food and Nutrition Board to be adequate to meet the known nutrient needs of practically all healthy person
- The first RDAs for protein, energy, and 8 vitamins and minerals were established in 1941 by the US National Research Council at the request of the National Defense Advisory Commission.
- The first edition of the Recommended Dietary Allowances (RDAs) was published in 1943 during World War II with the objective of "providing standards to serve as a goal for good nutrition.
- The RDA was intended as a guide for planning and procuring food supplies for national defence.

⭐ <u>Additional Information</u>

- **Recommended Dietary Allowances (RDAs)** are the levels of intake of essential nutrients that, on the basis of scientific knowledge, are judged by the Food and Nutrition Board to be adequate to meet the known nutrient needs of practically all healthy persons.
- **Recommended Dietary Allowances (RDAs)** are the levels of intake of essential nutrients that, on the basis of scientific knowledge, are judged by the Food and Nutrition Board to be adequate to meet the known nutrient needs of practically all healthy persons.

---

100. **Answer: a**

Explanation:

The correct answer is __Bharatanatyam__

⭐ __Key Points__

- Hema Malini is a trained Bharatanatyam dancer and landed her first lead role in the 1968 Hindi film "Sapno Ka Saudagar", where she starred alongside Raj Kapoor
- H ema Malini is an Indian actress, director, producer, and politician. She is primarily known for her work in Hindi films. Malini made her acting debut in 1963 with the Tamil film Idhu Sathiy

⭐ __Additional Information__

- Based on archaeological findings, Odissi is believed to be the oldest of the surviving Indian classical dances. Odissi is a very complex and expressive dance, with over fifty mudras (symbolic hand gestures) commonly used.
- Kuchipudi is one of the eight major Indian classical dances. It originates from a village named Kuchipudi in the Indian state of Andhra Pradesh. Kuchipudi is a dance-drama performance, with its roots in the ancient Hindu Sanskrit text of Natya Shastra

- The Lavani dance originated as a form of a morale booster for warring troops during the 18th and the 19th century when the state of Maharashtra was embroiled in conflict and turmoil