

Prepp

Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UPTET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 26 Oct 2021 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 English	25	25	0.25	1
2	General Intelligence & Reasoning	25	25	0.25	1
3	Numerical Aptitude	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 English

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

During the fight the wise man walked away without arguing.

- a. No substitution required
- b. walk away
- c. walk over
- d. walking about

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

Penguins are black and white sea birds that live almost _____ in the cold southern hemisphere.

- a. ordinarily
- b. exclusively
- c. realistically
- d. pleasingly

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

- a. Clever
- b. Graphic
- c. Particlar

d. Instant

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

LUCID

- a. Happy
 - b. Lucky
 - c. Timely
 - d. Clear
-

5. Select the most appropriate one-word substitution for the given group of words. (+1, -0.25)

A person who attacks and robs ships at sea

- a. Burglar
 - b. Pilot
 - c. Pirate
 - d. Crook
-

6. Identify the segment in the sentence which contains a grammatical error. (+1, -0.25)

This is the place here Sudhir found the wallet full of money.

- a. found the wallet
- b. full of money

- c. This is the place
 - d. here Sudhir
-

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

This is _____ a lovely smart phone. Did you pay a lot for it?

- a. much
 - b. so
 - c. such
 - d. what
-

8. Select the most appropriate one-word substitution for the given group of words. (+1, -0.25)

Indelible mark on the skin made by inserting pigment into the skin

- a. Sketch
 - b. Drawing
 - c. Etch
 - d. Tattoo
-

9. Identify the segment in the sentence which contains a grammatical error. (+1, -0.25)

Saturn is the sixth planet from the sun and it is the second large in our solar system.

- a. Saturn is the sixth planet

- b. from the sun and
 - c. in our solar system
 - d. it is the second large
-

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

ENTIRE

- a. Equal
 - b. Partial
 - c. Complete
 - d. Absolute
-

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

DUCT

- a. Wall
 - b. Bend
 - c. Canal
 - d. Bird
-

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

The children discovered a box full of old photographs and _____ several hours looking through them.

- a. spent
 - b. spend
 - c. spending
 - d. spends
-

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

Off-colour

- a. Feeling slightly ill
 - b. Not able to appreciate art
 - c. Not well-dressed
 - d. Wearing dull-coloured clothes
-

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

Bull's-eye

- a. Something that is the centre of a target
 - b. Something that is round
 - c. Something that is glassy-looking
 - d. Something that scares people
-

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

substitution required’.

She had grown too thin which she looked like a scarecrow.

- a. No substitution required
- b. so thin that
- c. very thin that
- d. too thin or

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

The shopkeeper checked all the items before packing it in the bag.

- a. No substitution required
- b. packing them
- c. packing those
- d. packing his

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

- a. Impression
- b. Dilema
- c. Natural
- d. Partial

18. Select the most appropriate ANTONYM of the given word.

(+1, -0.25)

CLASSIC

- a. Usual
- b. Atypical
- c. Expensive
- d. Traditional

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

(+1, -0.25)

There was a narrow staircase _____ up to the roof.

- a. leaving
- b. looking
- c. leading
- d. lasting

20. Identify the segment in the sentence which contains a grammatical error.

(+1, -0.25)

Although we took all precautions but we were unable to avoid getting caught in the heavy rain.

- a. to avoid getting caught
- b. we were unable
- c. in the heavy rain

d. Although we took all precautions but

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

For many years now the governments have been promising (1) _____ eradication of child labour in hazardous industries in India. But the truth (2) _____ that despite all the rhetoric no government (3) _____ far has succeeded in eradicating this evil, (4) _____ has any been able to ensure compulsory primary education (5) _____ every Indian child.

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

- a. an
- b. few
- c. some
- d. the

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

For many years now the governments have been promising (1) _____ eradication of child labour in hazardous industries in India. But the truth (2) _____ that despite all the rhetoric no government (3) _____ far has succeeded in eradicating this evil, (4) _____ has any been able to ensure compulsory primary education (5) _____ every Indian child.

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

- a. is

- b. was
- c. are
- d. were

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

For many years now the governments have been promising (1) _____ eradication of child labour in hazardous industries in India. But the truth (2) _____ that despite all the rhetoric no government (3) _____ far has succeeded in eradicating this evil, (4) _____ has any been able to ensure compulsory primary education (5) _____ every Indian child.

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

- a. here
- b. till
- c. there
- d. so

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

For many years now the governments have been promising (1) _____ eradication of child labour in hazardous industries in India. But the truth (2) _____ that despite all the rhetoric no government (3) _____ far has succeeded in eradicating this evil, (4) _____ has any been able to ensure compulsory primary education (5) _____ every Indian child.

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

- a. either
- b. neither
- c. but
- d. nor

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

For many years now the governments have been promising (1) _____ eradication of child labour in hazardous industries in India. But the truth (2) _____ that despite all the rhetoric no government (3) _____ far has succeeded in eradicating this evil, (4) _____ has any been able to ensure compulsory primary education (5) _____ every Indian child.

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

- a. with
- b. at
- c. for
- d. from

General Intelligence & Reasoning

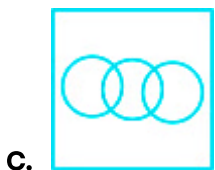
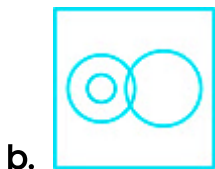
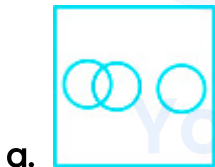
26. Select the number from among the given options that can replace the question mark (?) in the following series. (+1, -0.25)

2, 5, 9, 16, 27, ?, 74

- a. 39
- b. 48
- c. 43
- d. 45

27. Select the Venn diagram that best illustrates the relationship between the following classes. (+1, -0.25)

Doctors, Lawyers, Rich persons





d.

28. 'Newspaper' is related to 'General Readers' in the same way as (+1, -0.25)
'Professional Journal' is related to '_____'.
prepp

- a. Literates
- b. Researchers
- c. Technicians
- d. Customers

29. In a certain code language, BASKET is written as SFJTZC. How will FATHER (+1, -0.25)
be written in that language?

- a. SDISBH
- b. QFTGYG
- c. QFGUZG
- d. GZUFGQ

30. If the signs '+' and '-' are interchanged, which of the following equations (+1, -0.25)
would be correct?

- a. $8 - 4 \times 4 + 12 = 12$
- b. $10 - 6 \times 2 + 12 = 8$

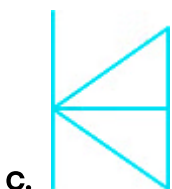
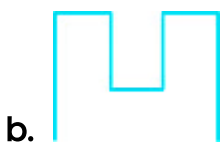
c. $6 \times 4 + 6 - 4 = 18$

d. $12 \div 6 + 6 - 12 = 9$

31. In a certain code language, BREAK is coded as 42 and PEAR is coded as 44. How will LEADER be coded in that language? (+1, -0.25)

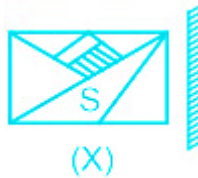
- a. 47
- b. 43
- c. 56
- d. 51

32. Select the option that is embedded in the given figure (rotation is not allowed). (+1, -0.25)





33. Select the correct mirror image of figure (X) when the mirror is placed at the right side of the figure. (+1, -0.25)



34. Select the figure from the options that when placed in the blank space of figure (X) will complete the pattern. (+1, -0.25)





35. Eight houses, A, B, C, D, E, F, G and H, are in two parallel rows, I and II, with 4 houses in each row. The houses in each row are at equal distances. The four houses in row-I are facing north, and are facing the four houses in row-II. (+1, -0.25)

B in row-I faces F and is not at an extreme end.

H is adjacent to F and is facing D.

C and E are diagonally opposite.

E is facing A, who is adjacent to H.

Which of the following statements is true?

- a. G is at an extreme end and is facing north.
- b. A is the second house to the left of G.
- c. H is between C and G.
- d. B and E are adjacent to each other.

36. In a certain code language, MEAT is coded as 11 and BARE is coded as 14. (+1, -0.25)
How will FACTOR be coded in that language?

- a. 13
- b. 23
- c. 19
- d. 15

37. Thirty-six persons are sitting in a row facing north. Jatin is exactly in the middle of Harish and Shovan. After Harish and Shovan interchange their positions, Harish becomes 10th from the left end and Shovan becomes 13th from the right end. (+1, -0.25)

What is Jatin's position from the right end?

- a. 22nd
- b. 19th
- c. 17th
- d. 20th

38. Select the option that will come next in the following figure series. (+1, -0.25)





39. Which two signs should be interchanged to make the given equation correct? (+1, -0.25)

$$15 + 5 - 10 \times 8 \div 4 = 15$$

- a. \times and $-$
- b. \div and $+$
- c. \div and $-$
- d. $+$ and \times

40. In a certain code language, CONVENTION is written as CNOUFWINO. How will RESPONDENT be written in that language? (+1, -0.25)

- a. SEROPDNETN

b. RSEQNOCTNE

c. ERSQPEONET

d. ERSQPOEENT

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

BJDHF : QYSWU :: AICGE : ?

a. RYTWV

b. RZSUW

c. SZUYW

d. RZTXV

42. Read the given statements and conclusions carefully. Assuming that the (+1, -0.25) 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.

Statements:

Some villagers are farmers.

All businessmen are farmers.

Some city dwellers are businessmen.

Conclusions:

I. Some businessmen being villagers is a possibility.

II. Some villagers are city dwellers.

III. Some city dwellers are farmers.

- a. Only conclusions II and III follow
- b. Only conclusions I and II follow
- c. All conclusions I, II and III follow
- d. Only conclusions I and III follow

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

acbd, fhcg, ikjl, npmo, ?, vxuw

- a. rtqs
- b. rtsu
- c. prqs
- d. qsrt

Your Personal Exams Guide

44. 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 crocodiles are aquatic animals.

Some crocodiles are alligators.

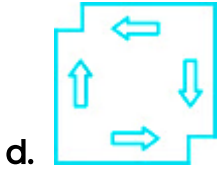
Conclusions:

- I. Some alligators are aquatic animals.
 - II. All alligators are aquatic animals.
 - III. Some aquatic animals are alligators.
- a. Only conclusion I follows
 - b. Either conclusion I or II follows
 - c. Only conclusions II and III follow
 - d. Only conclusions I and III follow

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



- a.
- b.
- c.



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

113, 109, 93, 88, 63, 57, ?

- a. 29
- b. 21
- c. 19
- d. 32

47. 'Prudent' is related to 'Cautious' in the same way as 'Excellent' is related to '_____'. (+1, -0.25)

- a. Intelligent
- b. Original
- c. Singular
- d. Fabulous

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

{91, 143, 221}

- a. {84, 132, 204}

- b. {119, 197, 289}
- c. {56, 78, 136}
- d. {112, 168, 262}

49. Select the option in which the two numbers are related the same way as $(+1, -0.25)$ are the two numbers of the given number-pair.

80 : 4

- a. 40 : 3
- b. 150 : 5
- c. 20 : 2
- d. 180 : 6

50. Six persons appeared for an examination. Nripesh scored more than $(+1, -0.25)$ Manasi and Anshika, but less than Leena. Only two persons scored more than Nripesh. Sambit scored less than Nagen, but not the lowest marks. Only two persons scored less than Manasi.

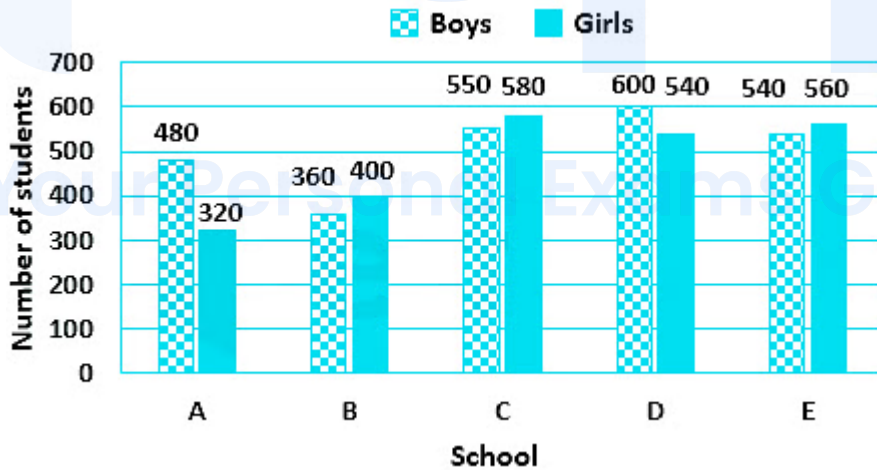
Which of the following statements is definitely FALSE?

- a. Anshika scored the lowest marks.
- b. Nagen scored more marks than Nripesh.
- c. Sambit scored more marks than Manasi.
- d. Leena scored the second highest marks.

Numerical Aptitude

51. When x is added to each of 7, 13, 19 and 29 the numbers so obtained in this order are in proportion. What is the mean proportional between $(3x - 8)$ and $(x + 5)$? (+1, -0.25)
- a. 12
 - b. 18
 - c. 20
 - d. 15

52. Study the given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019 and answer the question that follows. (+1, -0.25)



If a pie chart is drawn for the data related to the number of girls in the five schools, then the central angle (in degrees) of the sector representing the number of girls in school C will be:

- a. 87
- b. 84

c. 60

d. 81

53. The area of triangular field with the side 60 m, 175 m and 185 m is equal to (+1, -0.25) that of rectangular park whose sides are in the ratio of 21 : 10. The perimeter (in m) of the park is:

a. 341

b. 403

c. 310

d. 372

54. What is the mean of the mode and median of the given data ? (+1, -0.25)

5, 4, 6, 9, 3, 2, 5, 6, 7, 8, 9, 5, 7, 3

a. 5

b. 6

c. 5.50

d. 5.25

55. A can do 40% of a work in 24 days, and B can do $33\frac{1}{3}\%$ of the same work in 15 days. They work together for 15 days, C alone completes the remaining work in 10 days. A and C together can complete 35% of the same work in: (+1, -0.25)

a. 6 days

- b. 5 days
- c. 8 days
- d. 7 days

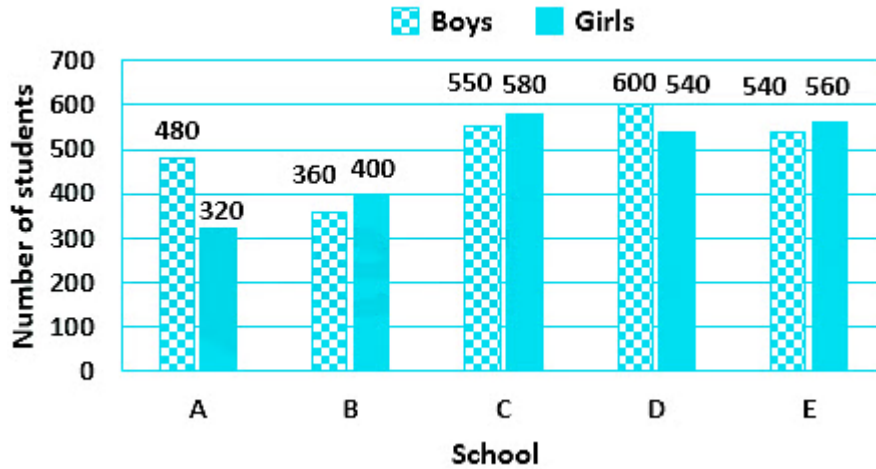
56. X can do a certain work in 40 hours. Y is 25% more efficient than X, and Z is 28% more efficient than Y. Working together, X, Y and Z will complete the same work in: (+1, -0.25)

- a. $\frac{160}{9}$ hours
- b. $\frac{230}{13}$ hours
- c. $\frac{400}{11}$ hours
- d. $\frac{800}{77}$ hours

57. The height of A is 20% more than that of B, and the height of B is 20% less than that of C. The height of C is 30% more than that of D. If the difference between the heights of C and A is 6.8 cm, then what is the height (in cm) of B? (+1, -0.25)

- a. 135
- b. 140
- c. 136
- d. 132

58. Study the given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019 and answer the question that follows. (+1, -0.25)



In which school is the number of boys 25% more than the average number of girls in all five schools?

- a. A
- b. D
- c. C
- d. E

59. The ratio of the present incomes of X and Y is 5 : 8 and the ratios of their individual incomes, in the last year and in the present year, are 2 : 3 and 3 : 4, respectively. If their total income for the last year was Rs. 56,000 then what is the present income of Y? (+1, -0.25)

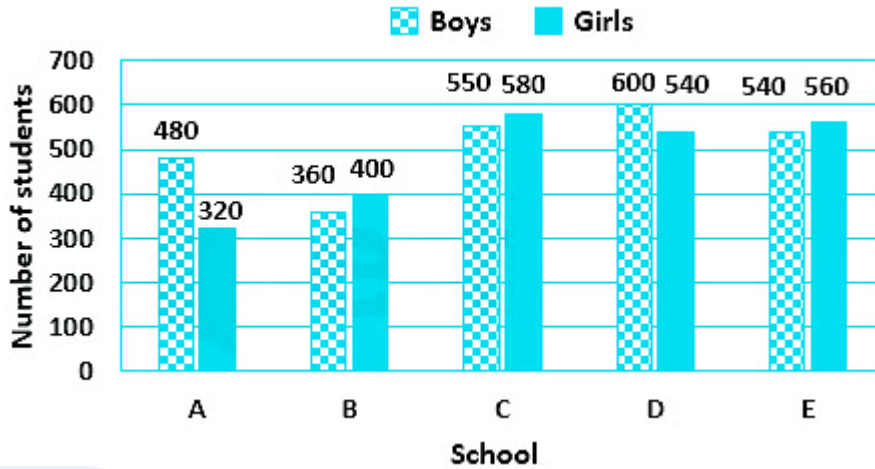
- a. Rs. 30,000
- b. Rs. 36,000
- c. Rs. 40,000
- d. Rs. 48,000

60. A sum of Rs x amounts to Rs. 6,900 at 5% p.a in a time in which a sum of Rs. 9,000 amounts to Rs. 10,080 at 4% p.a, both at simple interest. The value of x is: (+1, -0.25)
- a. 5,800
 - b. 6,400
 - c. 6,000
 - d. 6,500
-

61. By selling an article for Rs. 1,122, there is a loss of 12%. If it is sold Rs. 1,224, then what is the profit or loss percentage? (+1, -0.25)
- a. Profit, 4%
 - b. Loss, 8%
 - c. Profit, 8%
 - d. Loss, 4%
-

62. The average of the 3-digit numbers 372, $2x5$ and $x37$ is 498. What is the average of $(2x + 7)$ and $(5x - 2)$? (+1, -0.25)
- a. 30.5
 - b. 27
 - c. 28
 - d. 28.5
-

63. Study the given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019 and answer the question that follows. (+1, -0.25)



75% of the total number of boys in schools A and D is what percentage less than the total number of students in school E (correct to one decimal place)?

- a. 20.6%
 - b. 35.8%
 - c. 24.4%
 - d. 26.4%
-
64. A sum invested at compound interest amounts to Rs. 8,000 in 4 years and Rs. 8,400 in 5 years, interest being compounded yearly. What will be the amount of the same sum at the end of the 6th year? (+1, -0.25)
- a. Rs. 8,820
 - b. Rs. 9,000
 - c. Rs. 8,988

d. Rs. 8,904

65. A shopkeeper bought 600 pens. He sold 480 of them for the price he paid 600 pens, 100 pens at 10% higher rate than that at which he sold 480 pens, and the rest at the cost price. His profit percentage in the transaction is: (+1, -0.25)

a. 25%

b. 28.5%

c. 27%

d. 26.25%

66. Twelve years ago, the ratio of the ages of A and B was 12 : 5. Twelve years from now, the ratio of their ages will be 18 : 11. What is the difference between their present ages (in years)? (+1, -0.25)

a. 24

b. 25

c. 30

d. 28

67. A bus covers a certain distance in 1 hour 30 minutes at a speed of $11\frac{1}{9}$ m/sec. A car covers the same distance in 36 minutes. What is the ratio of the speeds of the bus and car? (+1, -0.25)

a. 2 : 5

b. 1 : 2

c. 2 : 3

d. 3 : 7

68. The value of $18 - [6 - \{13 - (78 - 8 \div 2 \times 5 \text{ of } 3)\}]$ is: (+1, -0.25)

a. 12

b. 7

c. 16

d. 8

69. A Person travelled a distance of 150 km and then returned to the starting point. The time taken for the outward journey was $2\frac{1}{2}$ hours more than that for the return journey. His speed for the return journey was 10 km/h more than that for the outward journey. His speed for the return journey, in km/h, was: (+1, -0.25)

a. 35

b. 20

c. 25

d. 30

70. The radius of a solid lead sphere is 2 cm. 2541 such spheres are melted and recast into a cube of edge x cm. The value of x is (take $\pi = \frac{22}{7}$): (+1, -0.25)

a. 22

b. 44

c. 66

d. 33

71. The ratio of the number of boys and girls in a class is 5 : 7. In English, the average score of boys is 48 and the average score of girls is 25% more than that of boys. What is the average score in English of all the boys and girls in the class? (+1, -0.25)

a. 54

b. 52

c. 56

d. 55

72. The value of $\frac{1}{5} \div \frac{3}{10}$ of $\frac{4}{9} - \frac{4}{5} \times 1\frac{1}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2}$ is: (+1, -0.25)

a. $\frac{11}{12}$

b. $\frac{1}{12}$

c. $\frac{7}{12}$

d. $\frac{5}{12}$

73. The marked price of an article is 35% above its cost price. After giving a 20% discount on the marked price, it is sold for Rs. 432. What is the cost price of the article? (+1, -0.25)

a. Rs. 425

b. Rs. 420

c. Rs. 380

d. Rs. 400

74. When 5054, 5906 and 7397 are divided by the greatest number x , the remainder in each case is the same. The sum of the digits of x is: (+1, -0.25)

a. 6

b. 11

c. 5

d. 9

75. The value of $1\frac{1}{8} \div 1\frac{4}{5}$ of $[3\frac{1}{4} - (\frac{14}{25} + \frac{2}{5} \times 2\frac{4}{5} \div \frac{5}{3}$ of $\frac{7}{15})]$ is: (+1, -0.25)

a. $\frac{1}{2}$

b. 1

c. $\frac{1}{5}$

d. $\frac{3}{25}$

prepp
Your Personal Exams Guide

General Awareness

76. What is the full form of WPI? (+1, -0.25)
- a. Wholesale Product Index
 - b. Wholesale Price Index
 - c. World Product Index
 - d. Wholesale Price Information
-
77. As of July 2020, which Indian cricketer captained India the most number of times in One-Day Internationals? (+1, -0.25)
- a. Kapil Dev
 - b. Mahendra Singh Dhoni
 - c. Sourav Ganguly
 - d. Virat Kohli
-
78. Which of the following statements is correct? (+1, -0.25)
- a. The Governor submits his resignation to the Prime Minister.
 - b. The minimum age requirement for appointment as Governor is 30 years.
 - c. The Governor is appointed by the President.
 - d. The Governor holds office during the pleasure of the Chief Minister.
-

79. Which of the following Articles of the Constitution of India provides the procedure for impeachment of the President? (+1, -0.25)
- a. Article 67
 - b. Article 51
 - c. Article 61
 - d. Article 52
-

80. Which of the following pair of authors jointly bagged the 2019 Booker Prize? (+1, -0.25)
- a. Jerry Craft and Kesha Ajoş Fisher
 - b. W Caleb McDaniel and Valeria Luiselli
 - c. Margaret Atwood and Bernardine Evaristo
 - d. Valeria Luiselli and Tayari Jones
-

81. The 'to and fro' or 'back and forth' motion of an object is termed as: (+1, -0.25)
- a. impulse
 - b. vibration
 - c. swing
 - d. convulsion
-

82. Who among the following was a great advocate of English education in India? (+1, -0.25)
- a. Jonathan Duncan
 - b. Warren Hastings
 - c. TB Macaulay
 - d. William Jones
-

83. A type of asexual reproduction in which new plants are produced from roots, stems, leaves and buds are known as: (+1, -0.25)
- a. vegetative propagation
 - b. layering propagation
 - c. budding propagation
 - d. grafting propagation
-

84. Who among the following was chosen as 'TIME' magazine's Person of the Year 2019? (+1, -0.25)
- a. Lady Gaga
 - b. Malala Yousafzai
 - c. Kylian Mbappe
 - d. Greta Thunberg
-

85. Manoj Das, the recipient of Padma Bhushan 2020, has received the award in the domain of: (+1, -0.25)
- a. Public Affairs
 - b. Art
 - c. Literature and Education
 - d. Trade and Industry
-

86. With how many States and Union Territories of India does Uttar Pradesh share its borders? (+1, -0.25)
- a. 5
 - b. 7
 - c. 10
 - d. 9
-

87. The Caves of Elephanta are predominantly dedicated to which of the following deities? (+1, -0.25)
- a. Lord Ganesha
 - b. Lord Rama
 - c. Lord Krishna
 - d. Lord Shiva
-

88. Which of the following is a hill pass located between India and China? (+1, -0.25)
- a. Khyber Pass
 - b. Zojila Pass
 - c. Karakoram Pass
 - d. Pangsau Pass
-

89. An image formed on a screen is called a _____ image, whereas the image formed by a plane mirror is called a _____ image. (+1, -0.25)
- a. parabolic; perpetual
 - b. real; virtual
 - c. virtual; real
 - d. vector; layered
-

90. Who was the first Governor-General of British India from 1773 to 1785? (+1, -0.25)
- a. Lord Cornwallis
 - b. Warren Hastings
 - c. Sir John Shore
 - d. Lord Wellesley
-

91. Where is the FIFA World Cup 2026 scheduled to be held? (+1, -0.25)

- a. North Korea, South Korea, Japan
 - b. The US, Canada, Mexico
 - c. Germany, Italy, France
 - d. Australia, New Zealand, Fiji
-

92. Who spearheaded the Revolt of 1857 rebellion in Bihar? (+1, -0.25)

- a. Bakht Khan
 - b. Kunwar Singh
 - c. Taty Tope
 - d. Nana Sahib
-

93. In which of the following states is the 'Mathuri' folk dance practiced? (+1, -0.25)

- a. Haryana
 - b. Uttarakhand
 - c. Uttar Pradesh
 - d. Telangana
-

94. In the symbol for the electric cell, the thicker, shorter line represents the: (+1, -0.25)

- a. neutral terminal
- b. positive terminal

- c. ring terminal
 - d. negative terminal
-

95. In June 2020, the Union cabinet approved the setting up of Animal Husbandry Infrastructure Development Fund (AHIDF) worth Rs. _____ crore. (+1, -0.25)
- a. 15,000
 - b. 8,000
 - c. 12,000
 - d. 10,000
-

96. Who among the following first deciphered the Brahmi script in 1837? (+1, -0.25)
- a. James Prinsep
 - b. Alexander Cunningham
 - c. Dayaram Sahni
 - d. John Marshall
-

97. Wildlife Crime Control Bureau (WCCB) is a statutory multi-disciplinary body under the Ministry of Environment, Forest and Climate Change (MoEF&CC). Its headquarters are in: (+1, -0.25)
- a. New Delhi
 - b. Nagpur

- c. Port Blair
 - d. Kolkata
-

98. In animal cells, which of the following are the cell's 'garbage disposal'? (+1, -0.25)

- a. Vacuoles
 - b. Endoplasmic reticulum
 - c. Vesicles
 - d. Lysosomes
-

99. Who among the following became the acting Prime Minister of India after the death of Jawaharlal Nehru? (+1, -0.25)

- a. Indira Gandhi
 - b. Gulzarilal Nanda
 - c. Morarji Desai
 - d. Zakir Hussain
-

100. What is the percentage of Foreign Direct Investment (FDI) allowed by the Department for Promotion of Industry and Internal Trade (DPIIT) in India for the Insurance Intermediaries as of July 2020? (+1, -0.25)

- a. 100%
- b. 50%
- c. 30%

d. 49%

prepp

Your Personal Exams Guide

Answers

1. Answer: a

Explanation:

The correct answer is " **No substitution required** "

★ Key Points

- Let's understand why the other options are incorrect.
- In option 2, the plural verb **walk** does not agree with the singular subject **the wise man** . The subject-verb agreement is wrong in this case.
- In option 3, the **plural** verb walk is still incorrect as it **does not agree** with the **singular** subject (the wise man).
- Moreover, **walk over** meanstreating someone in an inconsiderate or exploitative manner. This does not go with the meaning of the sentence.
- In option 4, **walking**(the present participle form) is the incorrect verb form for the given sentence. Moreover, walking about means walking without any purpose.
- We need to use the **simple past** form of the verb which is **walked** .

Hence, the correct answer is **option 4**.

Your Personal Exams Guide

2. Answer: b

Explanation:

The correct answer is " **exclusively** "

★ Key Points

- Let's look at the meaning of the given options.
- **Ordinarily** :in a normal way.
- **Exclusively**:solely ;only ; in a manner limited to what is designated.

- **Realistically** : in a way that demonstrates a sensible and practical idea of what can be achieved or expected.
- **Pleasingly** :in a satisfying or appealing manner.
- According to the given meanings, **exclusively** is the appropriate answer for the blank.
 - **Example** :*This parking spot is exclusively for differently-abled customers at the shopping complex .*

Hence, the correct answer is **option 2**.

3. Answer: c

Explanation:

The erroneous spelling is " **Particlar** "

★ Key Points

- The correct spelling is " **Particular** ".
- Let's look at the meaning of the words.
- **Clever** :quick to understand, learn, and devise or apply ideas; intelligent.
- **Graphic** :relating to visual art, especially involving drawing, engraving, or lettering.
- **Particular**:insisting that something should be correct or suitable in every detail; fastidious.
- **Instant** :happening or coming immediately.
 - **Example** :*He was very particular about his wardrobe.*

Hence, the correct answer is **option 3**.

4. Answer: d

Explanation:

The correct answer is " **Clear** "

★ Key Points

- Let's look at the meaning of the word.
- **Lucid** :expressed clearly; easy to understand.
 - **Example** :*He gave alucid and elaborate lecture on thermodynamics in class.*
- Let's look at the meaning of the given options.
- **Happy** :feeling or showing pleasure or contentment.
- **Lucky**:having, bringing, or resulting from good luck.
- **Timely**:done or occurring at a favorable or useful time; opportune.
- **Clear**:easy to perceive, understand, or interpret.
- We can see that the meaning of **lucid** is similar to that of **clear**.
 - **Example**:*She made sure that she had aclear understanding of concepts before the exam .*

★ Hinglish

- Let's look at the meaning of the word.
- **Lucid** :स्पष्ट रूप से व्यक्त; समझने में आसान।
- Let's look at the meaning of the given options.
- **Happy**:खुशी या संतोष महसूस करना या दिखाना।
- **Lucky**:सौभाग्य से होने, लाने या उत्पन्न होने वाला।
- **Timely**: अनुकूल या उपयोगी समय पर किया या घटित होना; उपयुक्त
- **Clear**:समझने, समझने या व्याख्या करने में आसान।
- We can see that the meaning of **lucid** is similar to that of **clear**.

5. **Answer: c**

Explanation:

The correct answer is " **Pirate** "

★ Key Points

- Let's look at the meaning of given words.
- **Burglar** :a person who illegally enters buildings and steals things.
- **Pilot** :a person who operates the flying controls of an aircraft.
- **Pirate** : a person who attacks and robs ships at sea.
- **Crook** :a person who is dishonest or a criminal.
- We can see that the meaning of **pirate** is exactly the same as that of the given group of words.
 - **Example** :*The pirates hijacked the ship going to Srilanka with the cargo*

Hence, the correct answer is **option 3**.

★ Hinglish

- Let's look at the meaning of given words.
- **Burglar** :एक व्यक्ति जो अवैध रूप से इमारतों में प्रवेश करता है और चीजें चुराता है।
- **Pilot** :एक व्यक्ति जो एक विमान के उड़ान नियंत्रण को संचालित करता है।
- **Pirate** :एक व्यक्ति जो समुद्र में जहाजों पर हमला करता है और लूटता है।
- **Crook** :एक व्यक्ति जो बेईमान या अपराधी है।
- We can see that the meaning of **pirate** is exactly the same as that of the given group of words.

6. Answer: d

Explanation:

The erroneous segment is " **here Sudhir** "

★ Key Points

- In the given sentence, we need to use the relative pronoun ' **where** ' in place of ' **here** ' .
- We use the relative pronoun where to indicate a **location** or a **space** .
 - **Example** :*The street where Mary lived had such eloquent houses.*
- The relative pronoun **where** modifies the noun phrase preceding it.

The correct sentence is: *This is the place where Sudhir found the wallet full of money.*

Hence, the correct answer is **option 4**.

7. Answer: c

Explanation:

The correct answer is " **such** "

★ Key Points

- In the given sentence, we need to use **such** as a **determiner** .
- We use such as a determiner in the sentence to create **emphasis** before a **noun** .
- The usage of such is followed by article ' **a** ' in the sentence.
 - **Example** :*He is sucha smooth talker.*
- In the given sentence, such is used to create an emphasis on the smart phone.
- We also notice the article 'a' after the blank.

The correct sentence is :*This is sucha lovely smart phone. Did you pay a lot for it?*

Hence, the correct answer is **option 3**.

Your Personal Exams Guide

8. Answer: d

Explanation:

The correct answer is " **Tattoo** "

★ Key Points

- Let's look at the meaning of given words.
- **Sketch**:a rough or unfinished drawing or painting, often made to assist in making a more finished picture.
- **Drawing**:a picture or diagram made with a pencil, pen, or crayon rather than paint.

- **Etch**: engrave (metal, glass, or stone) by coating it with a protective layer, drawing on it with a needle
- **Tattoo**: make (an indelible design) on a part of the body by inserting pigment into punctures in the skin.
- According to the meaning of the given words, a **tattoo** has the same meaning as the given group of words.
 - **Example**: *She had a tattoo of her first daughter engraved on her arm.*

Hence, the correct answer is **option 4**.

★ Hinglish

- Let's look at the meaning of given words.
- **Sketch**: एक मोटा या अधूरा चित्र या पेंटिंग, जिसे अक्सर अधिक तैयार चित्र बनाने में सहायता के लिए बनाया जाता है।
- **Drawing**: पेंट के बजाय पेंसिल, पेन या क्रेयॉन से बनाया गया चित्र या आरेख।
- **Etch**: एक सुरक्षात्मक परत के साथ कोटिंग करके, उस पर सुई के साथ चित्रित करके (धातु, कांच, या पत्थर) उत्कीर्ण करें।
- **Tattoo**: त्वचा में पंचर में पिगमेंट डालकर शरीर के एक हिस्से पर (एक अमिट डिजाइन) बनाएं।
- According to the meaning of the given words, a **tattoo** has the same meaning as the given group of words.

9. Answer: d

Your Personal Exams Guide

Explanation:

The erroneous segment is " **it is the second large** "

★ Key Points

- In the given sentence, we need to use the **superlative form of the adjective** in the erroneous segment.
- We use a superlative adjective in comparison to represent something as extreme or of the **highest degree**.
- Superlative adjectives are used when comparing three or more things.
 - **Example**: *The cheetah is the fastest animal in the cat family.*

- In the given sentence, we need to use the superlative form of large i.e largest since we are talking about planets.

The correct sentence is : *Saturn is the sixth planet from the sun and it is the second largest in our solar system.*

Hence, the correct answer is **option 4**.

10. Answer: b

Explanation:

The correct answer is " **Partial** "

★ Key Points

- Let's look at the meaning of the word:
- **Entire** :with no part left out; whole.
- Let's look at the meaning of the given options:
- **Equal** :being the same in quantity, size, degree, or value.
- **Partial** : existing only in part; incomplete.
- **Complete**:having all the necessary or appropriate parts.
- **Absolute**:used for emphasis when expressing an opinion.
- As per the meaning of the given words, **partial** is the antonym of the term **entire** . The meaning of partial is opposite to entire.
 - **Example** :*The teacher told Arjun that his answer was partially correct.*

Hence, the correct answer is **option 2**.

★ Hinglish

- Let's look at the meaning of the word:
- **Entire** :जिसका कोई हिस्सा न छूटे; पूरा का पूरा।
- Let's look at the meaning of the given options:
- **Equal** :मात्रा, आकार, डिग्री या मूल्य में समान होना।
- **Partial**: केवल आंशिक रूप से विद्यमान; अधूरा।
- **Complete**:सभी आवश्यक या उपयुक्त भागों का होना।

- **Absolute**: एक राय व्यक्त करते समय जोर देने के लिए उपयोग किया जाता है।
- As per the meaning of the given words, **partial** is the antonym of the term **entire**. The meaning of partial is opposite to entire.

11. Answer: c

Explanation:

The correct answer is " **Canal** "

★ Key Points

- Let's look at the meaning of the word.
- **Duct** : a pipe, tube, or channel that conveys a substance.
 - **Example** : The duct of the air conditioner was infested with rats.
- Let's look at the meaning of the given options.
- **Wall**: a continuous vertical brick or stone structure that encloses or divides an area of land.
- **Bend**: shape or force (something straight) into a curve or angle.
- **Canal**: an artificial waterway constructed to allow the passage of boats or ships inland or to convey water for irrigation.
- **Bird**: a warm-blooded egg-laying vertebrate animal distinguished by the possession of feathers, wings, a beak, and typically by being able to fly.
- As per the meaning of the given options, the **canal** is the synonym for **duct** as both are channels that can be used to carry something.
 - **Example** : *The **canals** were important for the movement of boats and ships in ancient times.*

Hence, the correct answer is **option 3**.

★ Hinglish

- Let's look at the meaning of the word.
- **Duct** : एक पाइप, ट्यूब या चैनल जो किसी पदार्थ को पहुंचाता है।
- Let's look at the meaning of the given options.
- **Wall**: एक सतत खड़ी ईंट या पत्थर की संरचना जो भूमि के एक क्षेत्र को घेरती या विभाजित करती है।

- **Bend**: एक वक्र या कोण में आकार या बल (कुछ सीधा)।
- **Canal**: एक कृत्रिम जलमार्ग का निर्माण नावों या जहाजों को अंतर्देशीय या सिंचाई के लिए पानी पहुंचाने के लिए किया जाता है।
- **Bird**: पंखों, पंखों, चोंच, और आमतौर पर उड़ने में सक्षम होने के कारण अलग-अलग गर्म खून वाले अंडे देने वाले कशेरुकी जानवर।
- As per the meaning of the given options, the **canal** is the synonym for **duct** as both are channels that can be used to carry something.

12. Answer: a

Explanation:

The correct answer is " **spent** "

★ **Key Points**

- In the given sentence, the first clause of the sentence is in the **simple past tense**.
- When there are two clauses in a sentence and they are joined by a conjunction.
- If the principal clause is in past tense then it will be followed by a simple past tense in the following clause as well.
- So we need to use the verb form which is in the **past tense** as well.
- The past tense of spend is **spent**.

The correct sentence is : *The children discovered a box full of old photographs and spent several hours looking through them.*

Hence, the correct answer is **option 1**.

13. Answer: a

Explanation:

The correct answer is " **Feeling slightly ill** "

★ Key Points

- The meaning of the idiom off-colour is 'slightly unwell' .
- People use off-colour in a sentence to convey that someone is not looking or feeling well.
 - **Example** : *Her face was looking a bit off-colour after suffering from jaundice last week.*

Hence, the correct answer is **option 1**.

★ Hinglish

- The meaning of the idiom off-colour is थोड़ा सा बीमार .

14. **Answer: a**

Explanation:

The correct answer is " **Something that is the centre of a target** "

★ Key Points

- The meaning of the idiom bull's-eye is "the centre of a target " .
- We use the idiom hitting the bull's eye to convey that we got something correct or spot on.
 - **Example** : *The doctor's diagnosis of the disease hit the bull's eye.*

Hence, the correct answer is **option 1**.

★ Hinglish

- The meaning of the idiom bull's-eye is "लक्ष्य का केंद्र".

15. **Answer: b**

Explanation:

The correct answer is " **so thin that** "

★ Key Points

- In the given sentence, we need to use the intensifier 'so' instead of 'too' before thin.
- So is an **adverb** of degree which qualifies an adjective.
- We use so to express the high degree of something
 - **Example** : *She ran so fast that I wasn't able to keep up.* (**adverb of degree**)
 - *She is so stubborn when it comes to sharing her things.* (**adjective**)
- We use **that** as an essential clause to identify the object, conditions, place, or item in a preceding clause of the sentence.
 - **Example** : *She is going to wear the red dress that she bought for the anniversary.*
- We use 'which' as a non-essential clause to give information about the object, conditions, or item in the previous clause.
 - **Example** : *She is going to a party which is happening in the neighborhood.*
- The use of which is dispensable in a sentence.

The correct sentence is : *She had grown so thin that she looked like a scarecrow.*

Hence, the correct answer is **option 2**.

Your Personal Exams Guide

16. Answer: b

Explanation:

The correct answer is " **packing them** "

★ Key Points

- In the given sentence, the usage of the pronoun 'it' is incorrect because 'it' is a **singular object pronoun** .
- In the given sentence, since we are referring to **items** so we need to use the object pronouns that are **plural** .
- **Plural object pronouns** include us, you, and them.

- We need to use **them** as an object pronoun in the sentence.

The correct sentence is : *The shopkeeper checked all the items before packing them in the bag.*

Hence, the correct answer is **option 2**.

17. Answer: b

Explanation:

The erroneous spelling is " **Dilema** "

★ Key Points

- Let's look at the correct spelling of the word and its meaning.
- **Dilemma** :a situation in which a difficult choice has to be made between two or more alternatives, especially ones that are equally undesirable.
 - **Example** :*She was caught in a **dilemma** when she had to choose between her parents and her lover.*

Hence, the correct answer is **option 2**.

★ Hinglish

- Let's look at the correct spelling of the word and its meaning.
- **Dilemma** :ऐसी स्थिति जिसमें दो या दो से अधिक विकल्पों के बीच एक कठिन चुनाव करना पड़ता है, विशेष रूप से वे जो समान रूप से अवांछनीय हैं।

18. Answer: b

Explanation:

The correct answer is " **Atypical** "

★ Key Points

- Let's look at the meaning of the word.
- **Classic** :judged over a period of time to be of the highest quality and outstanding of its kind.
 - **Example** :*The novel Crime and Punishment by Fyodor Dostoyevsky is a classic.*
- Let's look at the meaning of the given options.
- **Usual**:habitually or typically occurring or done; customary.
- **Atypical**:not representative of a type, group, or class.
- **Expensive**:costing a lot of money.
- **Traditional**:existing in or as part of a tradition; long-established.
- According to the meaning of the given options, **atypical** is the antonym of the **classic** .
 - **Example** :*Her behavior was atypical of bright students in the class .*

Hence, the correct answer is **option 2** .

★ Hinglish

- Let's look at the meaning of the word.
- **Classic** :समय की अवधि में उच्चतम गुणवत्ता और अपनी तरह के उत्कृष्ट होने का निर्णय लिया गया।
- Let's look at the meaning of the given options.
- **Usual** :आदतन या आम तौर पर होने वाला या किया हुआ; प्रथागत।
- **Atypical**:किसी प्रकार, समूह या वर्ग का प्रतिनिधि नहीं।
- **Expensive**:बहुत सारे पैसे खर्च करना।
- **Traditional**:एक परंपरा में या उसके भाग के रूप में विद्यमान; लम्बे समय से चला आ रहा।
- According to the meaning of the given options, **atypical** is the antonym of the **classic** .

19. **Answer: c**

Explanation:

The correct answer is " **leading** "

★ Key Points

- Let's look at the meaning of the given options.
- **Leaving** :go away from.
- **Looking** : direct one's gaze toward someone or something or in a specified direction.
- **Leading** : be a route or means of access to a particular place or in a particular direction.
- **Lasting** :enduring or able to endure over a long period of time.
- As per the meaning of the given options, **leading** is the correct verb for the blank.

The correct sentence is :*There was a narrow staircase leading up to the roof.*

Hence, the correct answer is **option 3** .

20. Answer: d

Explanation:

The erroneous segment is " **Although we took all precautions but** "

★ Key Points

- We use the conjunction ' **but** ' to introduce information that is in **contrast** to what has been stated so far.
- The use of **although** as an introductory phrase indicates that the information in that phrase contrasts with something later in the sentence.
- We don't use both the **conjunctions** in the same sentence.

The correct sentence is :*Although we took all precautions we were unable to avoid getting caught in the heavy rain.*

Hence, the correct answer is **option 4** .

21. Answer: d

Explanation:

The correct answer is " the "

★ Key Points

- We use an **indefinite article** such as an or a with a **countable noun**.
- We use the **definite article** 'the' with **uncountable nouns** in a sentence.
- In the given sentence, **eradication** is an **uncountable noun** so we need to use the definite article ' the ' before it.

Hence, the correct answer is **option 4** .

The complete passage is : For many years now the governments have been promising (1) **the** eradication of child labour in hazardous industries in India. But the truth (2) **is** that despite all the rhetoric no government (3) **so** far has succeeded in eradicating this evil, (4) **nor** has any been able to ensure compulsory primary education (5) **for** every Indian child.

22. Answer: a

Explanation:

The correct answer is ' is '

★ Key Points

- In the given sentence, 'the truth' before the blank is a singular subject so we need to use a singular verb.
- We need to use ' **is** ' which is a singular verb for **subject-verb agreement** .
- Both **are** and **were** are plural verbs.
- Also, since the previous sentence is in the present perfect tense and we are introducing contrast to that sentence.
- We should use ' **is** ' in the sentence to maintain the tense.

Hence, the correct answer is **option 1** .

The complete passage is : For many years now the governments have been promising (1) **the** eradication of child labour in hazardous industries in India. But the truth (2) **is** that despite all the rhetoric no government (3) **so** far has succeeded in eradicating this evil, (4) **nor** has any been able to ensure compulsory primary education (5) **for** every Indian child.

23. Answer: d

Explanation:

The correct answer is ' so '

★ Key Points

- In the given sentence, we need to use the adverb ' so '.
- The combination of so+far leads to the phrase 'so far' meaning **until this point** .
- It is the present perfect tense which means an action that is continuing until this point.
- In the given sentence, we are talking about how governments have not been able to eradicate child labor until the present time.

Hence, the correct answer is **option 4** .

The complete passage is : For many years now the governments have been promising (1) **the** eradication of child labour in hazardous industries in India. But the truth (2) **is** that despite all the rhetoric no government (3) **so** far has succeeded in eradicating this evil, (4) **nor** has any been able to ensure compulsory primary education (5) **for** every Indian child.

24. Answer: d

Explanation:

The correct answer is ' nor '

★ Key Points

- In the given sentence, we need to use the conjunction **nor**.
- We typically use **nor** to introduce **a negative clause** in the sentence.
- **Nor** can also be used independently without **neither** in a sentence.
- In the given sentence, we use '**nor**' to highlight that the government has not taken any concrete steps for primary education.

Hence, the correct answer is **option 4**.

The complete passage is : For many years now the governments have been promising (1) **the** eradication of child labour in hazardous industries in India. But the truth (2) **is** that despite all the rhetoric no government (3) **so** far has succeeded in eradicating this evil, (4) **nor** has any been able to ensure compulsory primary education (5) **for** every Indian child.

25. Answer: c

Explanation:

The correct answer is '**for**'

★ Key Points

- In the given sentence, we need to use the **preposition** 'for'.
- We use the preposition **for** to indicate a **purpose** or the object of an action.
- In the given sentence, **for** is used to answer the question. Who needs compulsory primary education? Every Indian child.

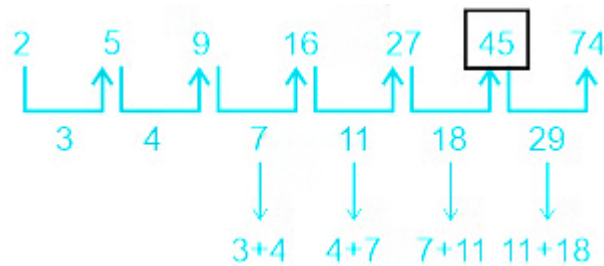
Hence, the correct answer is **option 3**.

The complete passage is : For many years now the governments have been promising (1) **the** eradication of child labour in hazardous industries in India. But the truth (2) **is** that despite all the rhetoric no government (3) **so** far has succeeded in eradicating this evil, (4) **nor** has any been able to ensure compulsory primary education (5) **for** every Indian child.

26. Answer: d

Explanation:

The series generated by the difference of given series, is a Fibonacci series.



Hence, the correct answer is "45".

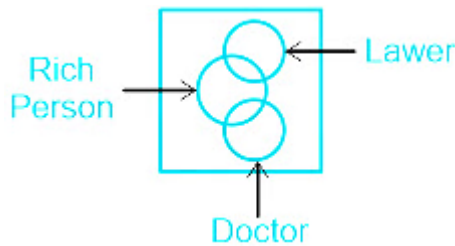
★ Additional Information

Fibonacci series is a series of numbers in which each number (Fibonacci number) is the sum of the two preceding numbers.

27. Answer: c

Explanation:

The Venn diagram which shows the relationship between Doctors, Lawyers, Rich persons is as follow:



A lawyer could be a rich person but couldn't be a doctor .

Similarly,

A **doctor** could be a **rich person** but couldn't be a **lawyer** .

Hence, the correct answer is "**Option (3)**".

28. Answer: b

Explanation:

The logic followed here is:

- **Newspaper** is the source for **General Readers** to know about the important incidents happening throughout the world.

Similarly,

- The **professional journal** can be the source of research for many **Researchers** .

Hence, The correct answer is "**Researchers**".

29. Answer: c

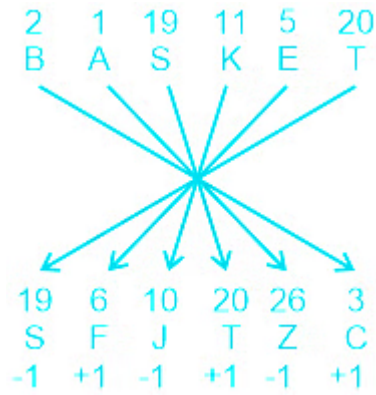
Explanation:

For this question, we use the table given below:

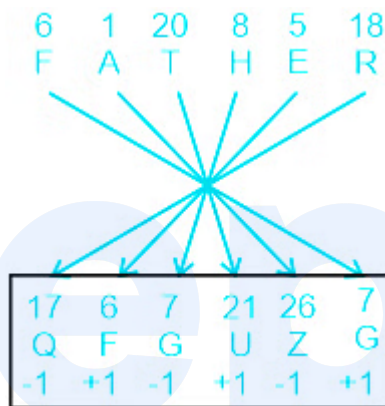
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

LOGIC: Letters are shifted in the reverse order increasing by +1 and decreasing by -1.

The pattern followed here is:



Similarly



Hence, The correct answer is "QFGUZG".

30. Answer: a

Your Personal Exams Guide

Explanation:

BODMAS RULE:

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

Now, we check each option:

Option (1):

Given Equation: $8 - 4 \times 4 + 12 = 12$

After the sign '+' and '-' are interchanged, the Equation is $8 + 4 \times 4 - 12 = 12$.

$$\Rightarrow 8 + \underline{4 \times 4} - 12 = 12$$

$$\Rightarrow \underline{8 + 16} - 12 = 12$$

$$\Rightarrow \underline{24 - 12} = 12$$

$$12 = 12$$

LHA = RHS

Option (2):

Given equation: $10 - 6 \times 2 + 12 = 8$

After the sign '+' and '-' are interchanged, the Equation is $10 + 6 \times 2 - 12 = 8$.

$$\Rightarrow 10 + \underline{6 \times 2} - 12 = 8$$

$$\Rightarrow \underline{10 + 12} - 12 = 8$$

$$\Rightarrow \underline{22 - 12} = 8$$

$$10 \neq 8$$

LHS \neq RHS

Option (3):

Given equation: $6 \times 4 + 6 - 4 = 18$

After the sign '+' and '-' are interchanged, the Equation is $6 \times 4 - 6 + 4 = 18$.

$$\Rightarrow \underline{6 \times 4} - 6 + 4 = 18$$

$$\Rightarrow \underline{24} - 6 + \underline{4} = 18$$

$\Rightarrow 28 - 6 = 18$

$22 \neq 18$

LHS \neq RHS

Option (4):

Given equation: $12 \div 6 + 6 - 12 = 9$

After the sign '+' and '-' are interchanged, the Equation is $12 \div 6 - 6 + 12 = 9$.

$\Rightarrow 12 \div 6 - 6 + 12 = 9$

$\Rightarrow 2 - 6 + 12 = 9$

$\Rightarrow 14 - 6 = 9$

$8 \neq 9$

LHS \neq RHS

Hence, the correct answer is " $8 - 4 \times 4 + 12 = 12$ ".

31. Answer: d

Your Personal Exams Guide

Explanation:

Consider the position of letter of the English Alphabet:

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

Logic: [Sum of all letter + Total number of letter] = Number Code

BREAK $\rightarrow 2 + 18 + 5 + 1 + 11 = 37$

Total number of letter in BREAK = 5

Now, $37 + \text{Total number of letter} = 37 + 5 = 42$

PEAR $\rightarrow 16 + 5 + 1 + 18 = 40$

Total number of letter in PEAR = 4

Now, $40 + \text{Total number of letter} = 40 + 4 = 44$

Similarly,

LEADER $\rightarrow 12 + 5 + 1 + 4 + 5 + 18 = 45$

Total number of letter in LEADER = 6

Now, $45 + \text{Total number of letter} = 45 + 6 = 51$

Hence, the correct answer is "51".

32. Answer: d

Explanation:

Option 4, is embedded in the question figure as follows:

Hence, the correct answer is "Option 4".

33. Answer: a

Explanation:

The mirror image of the question figure is as follows:

Hence, the correct answer is " Option (1)".

34. Answer: a

Explanation:

Pattern are followed in the given figure below:

Hence, the correct answer is " Option (1)".

35. Answer: a

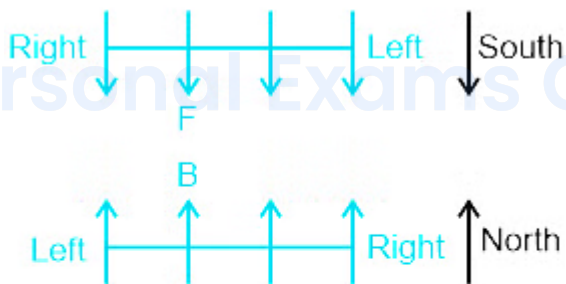
Explanation:

Eight House: A, B, C, D, E, F, G and H.

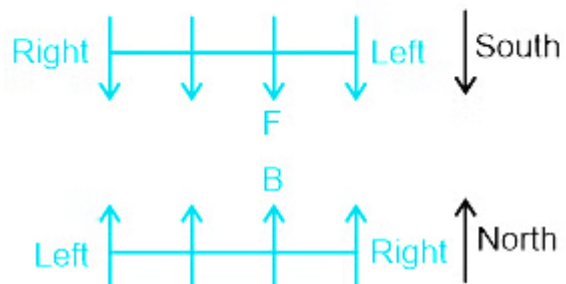
1) B in row-I faces F and is not an extreme end.

(Here is two cases are possible and B is not sit at an any extreme end, so B can sit only in middle)

Case -1



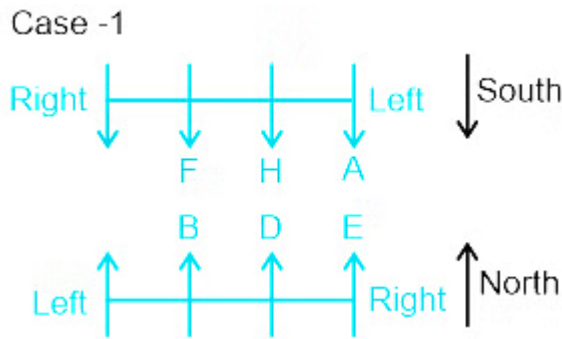
Case -2



2) H is adjacent to F and is facing D.

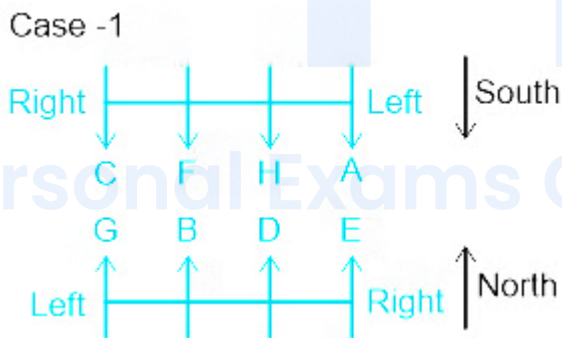
3) E is facing A, who is adjacent of H.

(Case-2 is eliminate from this statement H is sit only right side of F, because E is facing A, who is adjacent of H from this there no place are left for E. Only possible in case-1)



4) C and E are diagonally opposite.

(Only one place are left for C when they sit diagonally opposite to E and G sit opposite to C)



From the final sitting arrangement of house. We can see clearly "G is at an extreme end and is facing north"

Hence, the correct answer is "Option 1".

36. Answer: d

Explanation:

Table shows positional values of alphabets.

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

The logic followed here is:

Logic: Difference of Sum of even positional value and Sum of odd positional value

$$\text{MEAT} \rightarrow (E + T) - (M + A)$$

$$\Rightarrow (5 + 20) - (13 + 1)$$

$$\Rightarrow 25 - 14$$

$$\Rightarrow 11$$

$$\text{BARE} \rightarrow (B + R) - (A + E)$$

$$\Rightarrow ((2 + 18) - (1 + 5))$$

$$\Rightarrow 20 - 6$$

$$\Rightarrow 14$$

Similarly,

$$\text{FACTOR} \rightarrow (A + T + R) - (F + C + O)$$

$$\Rightarrow (1 + 20 + 18) - (6 + 3 + 15)$$

$$\Rightarrow 39 - 24$$

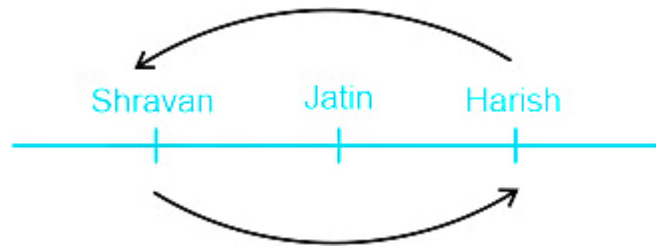
$$\Rightarrow 15$$

Hence, the correct answer is "15"

37. Answer: d

Explanation:

Before interchanging:



After interchanging:

Position of Harish from left = 10

Position of Shovan from right = 13

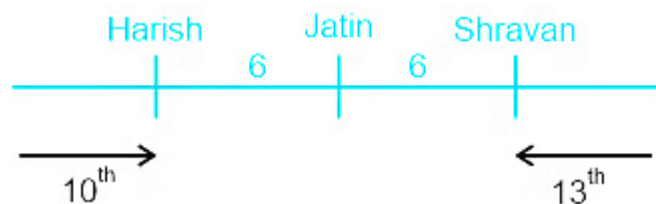
Person between Harish and Shovan = Total - (Position of Harish from left + Position of Shovan from right)

$$\Rightarrow 36 - (10 + 13)$$

$$\Rightarrow 36 - 23$$

$$\Rightarrow 13 \text{ persons}$$

Jatin is between Harish and Shovan than 6 will be right of Jatin and 6 will be left of Jatin.



Position of Jatin from right end = Position of Shovan + Person between Jatin and Shovan + 1

$$\Rightarrow 13 + 6 + 1$$

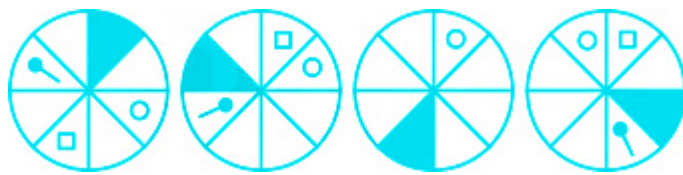
⇒ 20

Position of Jatin from right end is 20th.

Hence, the correct answer is "20".

38. Answer: d

Explanation:



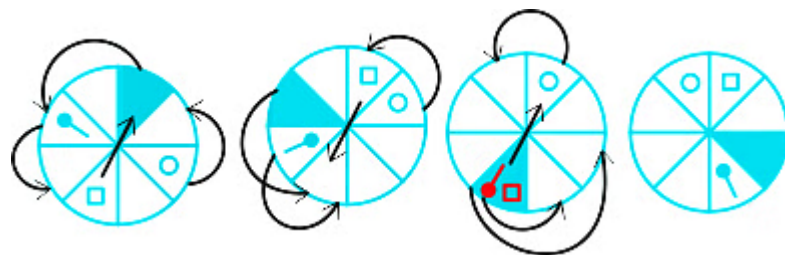
★ Confusion Points

Dark part moves second place in anticlockwise direction.

Matchstick symbol moves first place with reverse position in anticlockwise direction.

Square moves to the front or opposite place.

Circle moves to the first place in anticlockwise direction.



Hence, the correct answer is "option (4)".

39. Answer: c

Explanation:

BODMAS RULE:

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

Given: $15 + 5 - 10 \times 8 \div 4 = 15$

Option (1): × and -

After changing the symbols,

$$\Rightarrow 15 + 5 \times 10 - 8 \div 4 = 15$$

$$\Rightarrow 15 + 5 \times 10 - 2 = 15$$

$$\Rightarrow 15 + 50 - 2 = 15$$

$$\Rightarrow 65 - 2 = 15$$

$$\Rightarrow 63 \neq 15$$

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

Option (2): ÷ and +

After changing the symbols,

$$\Rightarrow 15 \div 5 - 10 \times 8 + 4 = 15$$

$$\Rightarrow 3 - 10 \times 8 + 4 = 15$$

$$\Rightarrow 3 - 80 + 4 = 15$$

$$\Rightarrow 7 - 80 = 15$$

$$\Rightarrow -73 \neq 15$$

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

Option (3): \div and $-$

After changing the symbols,

$$\Rightarrow 15 + \underline{5 \div 10} \times 8 - 4 = 15$$

$$\Rightarrow 15 + \underline{1/2 \times 8} - 4 = 15$$

$$\Rightarrow \underline{15 + 4} - 4 = 15$$

$$\Rightarrow \underline{19 - 4} = 15$$

$$\Rightarrow 15 = 15$$

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

Option (4): $+$ and \times

After changing the symbols,

$$\Rightarrow 15 \times 5 - 10 + \underline{8 \div 4} = 15$$

$$\Rightarrow \underline{15 \times 5} - 10 + 2 = 15$$

$$\Rightarrow \underline{75} - 10 + \underline{2} = 15$$

$$\Rightarrow \underline{77 - 10} = 15$$

$$\Rightarrow 67 \neq 15$$

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

Hence, the correct answer is "Option (3)".

40. Answer: d

Explanation:

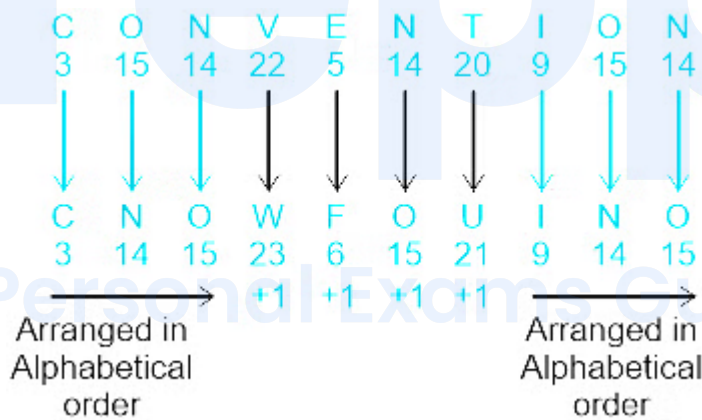
Table shows the positional value of alphabets.

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

The logic followed here is:

Logic:

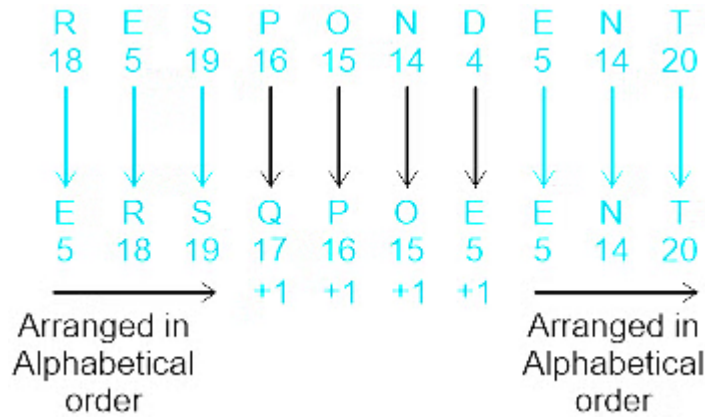
- 1) First three and last three letters are arranged in alphabetical order.
- 2) Middle four letters are shifted by +1.



NOTE : According to alphabetical order C comes first position among C, O and N.

According to alphabetical order I comes first position among I, N and O.

Similarly,



NOTE: According to alphabetical order E comes first position among R, E and S. According to alphabetical order E comes first position among E, N and T.

Hence, the correct answer is "ERSQPOEENT".

41. Answer: d

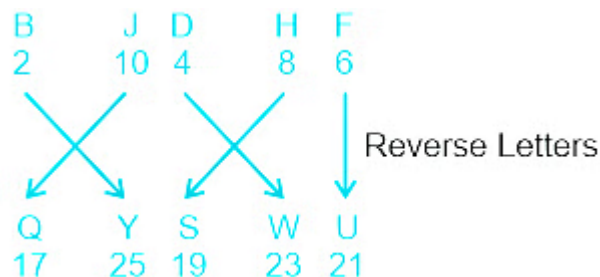
Explanation:

The Reverse positions of the letters according to the English alphabet series:

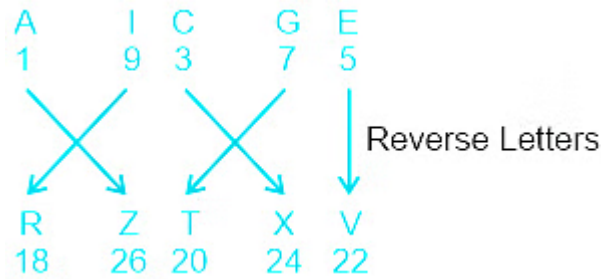
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Reverse value	26	25	24	23	22	21	20	19	18	17	16	15	14
Reverse value	1	2	3	4	5	6	7	8	9	10	11	12	13
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

LOGIC: First four Letters are shifted by their **O pposite letters** in the cross and the last letter is shifted by the opposite letter in parallel.

The Pattern followed here is:



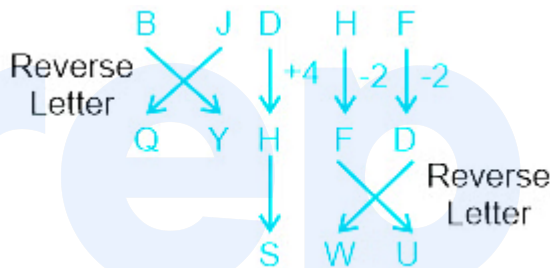
Similarly,



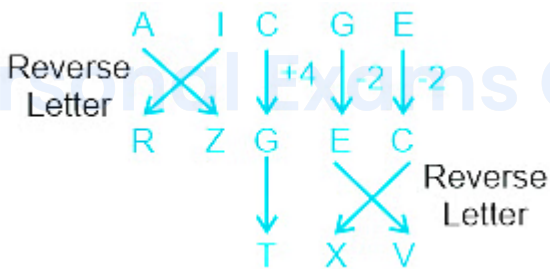
Hence, The Correct answer is "RZTXV".

★ Alternate Method

The Pattern followed here is:



Similarly,

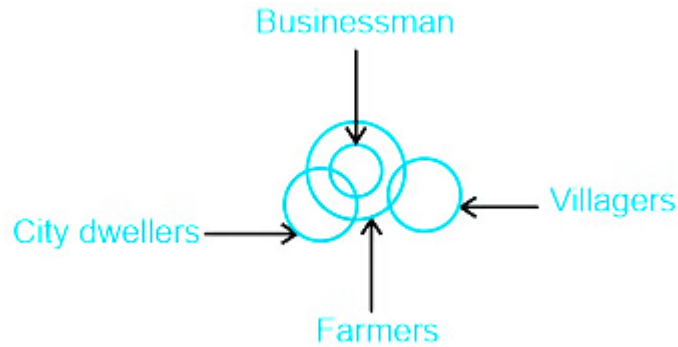


Hence, the correct answer is "RZTXV".

42. Answer: d

Explanation:

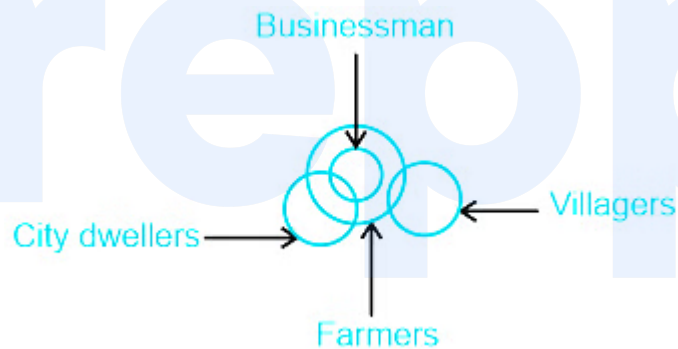
Least possible Venn diagram:



Conclusions:

I. Some businessmen being villagers is a possibility → **Follow** (As a ll businessmen are farmers and Some villagers are farmers so it is a possibility that Some businessmen are villagers).

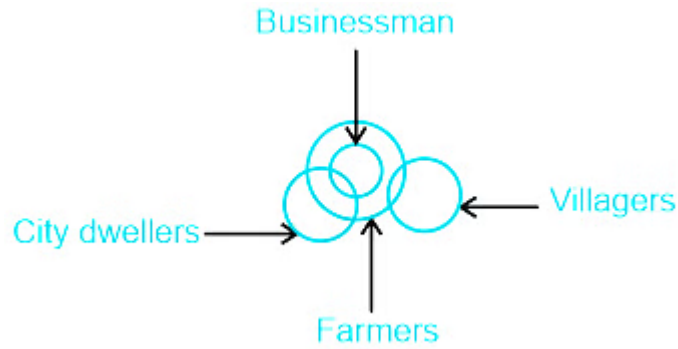
This Possible scenario can be shown by the following Venn diagram:



As we can see from this Venn diagram, some businessmen could be villagers.

II. Some villagers are city dwellers → **Doesn't Follow** (according to the given statements Some villagers are farmers, all businessmen are farmers, and Some city dwellers are businessmen. so we can't say that that Some villagers are city dwellers).

This Possible scenario can be shown by the following Venn diagram:



As we can see from this Venn diagram, some villagers could be city dwellers.

III. Some city dwellers are farmers → **Follow** (As some city dwellers are businessmen and all businessmen are farmers. so Some city dwellers are definitely farmers)

Hence, the correct answer is **"Only conclusions I and III follow"**.

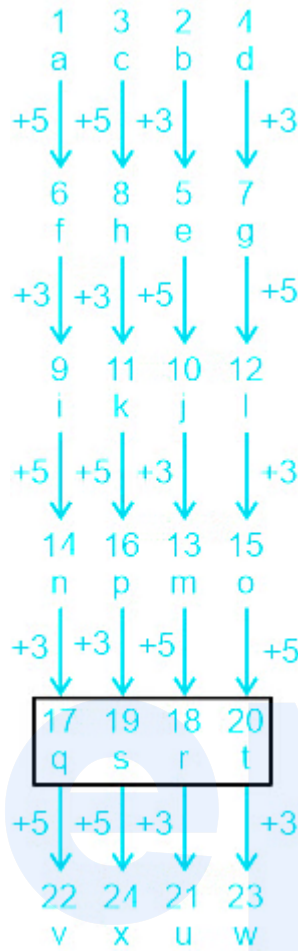
43. Answer: d

Explanation:

The Position of the letters according to the English alphabet series:

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:



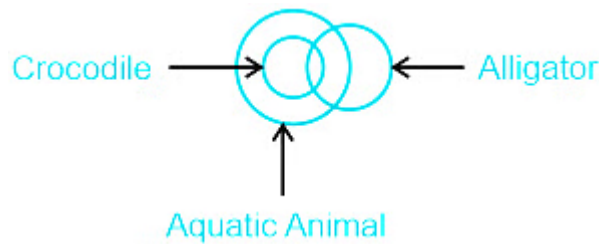
Hence, The correct answer is "qsrt".

Your Personal Exams Guide

44. Answer: d

Explanation:

Least Possible Venn diagram:

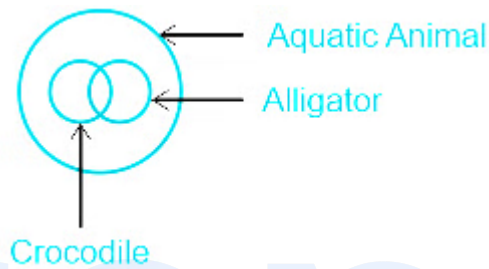


Conclusions:

I. Some alligators are aquatic animals → **Follow** (According to the given statements all crocodiles are aquatic animals and some alligators are crocodiles so some alligators are definitely aquatic animals)

II. All alligators are aquatic animals → **Doesn't Follow** (As all crocodiles are aquatic animals and some alligators are crocodiles. so it could be possible that all alligators are aquatic animals)

This possibility scenario can be shown by the following Venn diagram:



From the above Venn diagram, we can say that all alligators are aquatic animals but it is a possibility.

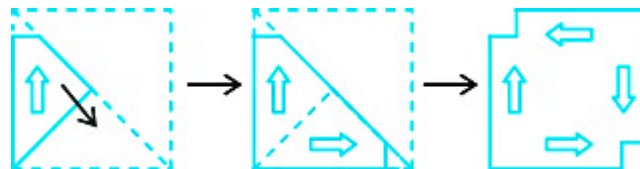
III . Some aquatic animals are alligators → **Follow** (from the given statements all crocodiles are aquatic animals and some alligators are crocodiles so some aquatic animals are definitely alligators).

Hence, the correct answer is "Only Conclusion I and III follow".

45. Answer: d

Explanation:

When the given piece of paper is cut and unfolded it shows as given below:

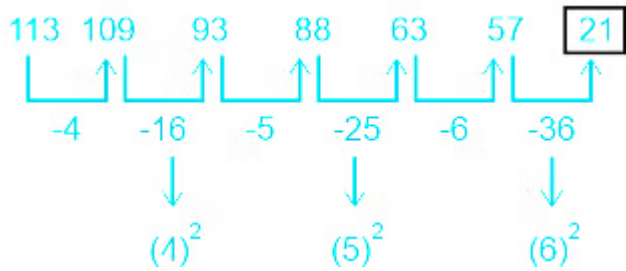


Hence, The correct answer is "Option 4".

46. Answer: b

Explanation:

The logic followed here is:



Hence, the correct answer is "21".

47. Answer: d

Explanation:

Prudent is the synonym of **Cautious**.

Similarly,

Excellent is the synonym of **Fabulous**.

Hence, the correct answer is "Fabulous".

★ Additional Information

Prudent - Sensible and careful

Cautious - Taking care to avoid danger or problem.

Excellent - Very good or high quality.

Fabulous - very great or something hard to believe.

48. Answer: a

Explanation:

The logic followed here is:

Logic: First number = (Second number + Third number) / 4

(91, 143, 221)

$$\Rightarrow \text{First number} = (143 + 221) / 4 = 364 / 4 = 91$$

$$\Rightarrow 91 = 91$$

Option (1) → (84, 132, 204)

$$\Rightarrow \text{First number} = (132 + 204) / 4 = 336 / 4 = 84$$

$$\Rightarrow 84 = 84$$

Option (2) → (119, 197, 289)

$$\Rightarrow \text{First number} = (197 + 289) / 4 = 486 / 4 = 121.5$$

$$\Rightarrow 121.5 \neq 119$$

Option (3) → (56, 78, 136)

$$\Rightarrow \text{First number} = (78 + 136) / 4 = 214 / 4 = 53.5$$

$$\Rightarrow 53.5 \neq 56$$

Option (4) → (112, 168, 262)

$$\Rightarrow \text{First number} = (168 + 262) / 4 = 430 / 4 = 107.5$$

$$\Rightarrow 107.5 \neq 112$$

Hence, the correct answer is "(84, 132, 204)".

Logic:

★ Alternate Method

First number is multiple of 7.

Second number is multiple of 11.

Third number is multiple of 17.

(91, 143, 221)

$$\Rightarrow 91 = 13 \times 7$$

$$\Rightarrow 143 = 13 \times 11$$

$$\Rightarrow 221 = 13 \times 17$$

Similarly,

(84, 132, 204)

$$\Rightarrow 84 = 12 \times 7$$

$$\Rightarrow 132 = 12 \times 11$$

$$\Rightarrow 204 = 12 \times 17$$

Hence, the correct answer is "(84, 132, 204)".

49. Answer: b

Explanation:

The logic followed here is:

Logic: Square of number + Cube of number : Number

$$80 : 4$$

$$\Rightarrow 4^3 + 4^2 : 4$$

$$\Rightarrow 64 + 16 : 4$$

$$\Rightarrow 80 : 4$$

Option (1) $\rightarrow 40 : 3$

$$\Rightarrow 3^3 + 3^2 : 3$$

$$\Rightarrow 27 + 9 : 3$$

$$\Rightarrow 36 : 3$$

Here, $36 \neq 40$

Option (2) $\rightarrow 150 : 5$

$$\Rightarrow 5^3 + 5^2 : 5$$

$$\Rightarrow 125 + 25 : 5$$

$$\Rightarrow 150 : 5$$

Option (3) $\rightarrow 20 : 2$

$$\Rightarrow 2^3 + 2^2 : 2$$

$$\Rightarrow 8 + 4 : 2$$

$$\Rightarrow 12 : 2$$

Here, $12 \neq 20$

Option (4) $\rightarrow 180 : 6$

$$\Rightarrow 6^3 + 6^2 : 6$$

$$\Rightarrow 216 + 36 : 6$$

$$\Rightarrow 252 : 6$$

prepp
Your Personal Exams Guide

Here, $252 \neq 180$

Hence, the correct answer is "150 : 50".

50. Answer: c

Explanation:

1) Nripesh scored more than Manasi and Anshika, but less than Leena.

Leena > Nirpesh > Manasi / Anshika

2) Only two persons scored more than Nripesh.

____ > ____ > Nirpesh > ____ > ____ > ____

3) Sambit scored less than Nagen, but not the lowest marks.

Nagen > Sambit (Not lowest)

4) Only two persons scored less than Manasi.

____ > ____ > ____ > Manasi > ____ > ____

After combining (2) and (4)

____ > ____ > Nirpesh > Manasi > ____ > ____

After combining (1) and (3)

Anshika scored less than Nirpesh and Sambit did not get the lowest marks.

____ > ____ > Nirpesh > Manasi > Sambit > Anshika

Sambit can not be placed at last position because he did not get lowest marks.

Sambit can not be placed at first position because he got less marks than Nagen.

The only left position for Sambit is second last.

_____ > Leena > Nirpesh > Manasi > Sambit > _____

Anshika got less than Nirpesh.

_____ > Leena > Nirpesh > Manasi > Sambit > Anshika

Nagen will be on first position because he got higher marks than Sambit and also this the vacant position.

This is the final order of persons according to marks (descending order).

Nagen > Leena > Nirpesh > Manasi > Sambit > Anshika

Sambit scored more marks than Manasi - **False**.

Hence, the correct answer is "option (3)".

51. Answer: c

Explanation:

Given:

x is added to each of 7, 13, 19 and 29

Formula used:

If a, b, c, and d are in proportion, then $a/b = c/d$

Also, b is the mean proportion of a and d then $b = \sqrt{ad}$

Calculation:

$$(x + 7)/(x + 13) = (x + 19)/(x + 29)$$

$$\Rightarrow (x + 7)(x + 29) = (x + 13)(x + 19)$$

$$\Rightarrow x^2 + 7x + 29x + 203 = x^2 + 13x + 19x + 247$$

$$\Rightarrow 7x + 29x - 13x - 19x = 247 - 203$$

$$\Rightarrow 4x = 44$$

$$\Rightarrow x = 44/4 = 11$$

$$\text{The mean proportion} = \sqrt{(3x - 8)(x + 5)}$$

$$= \sqrt{(3 \times 11 - 8)(11 + 5)}$$

$$= \sqrt{(25 \times 16)}$$

$$= 20$$

\therefore The mean proportional between $(3x - 8)$ and $(x + 5)$ is 20

52. Answer: a

Explanation:

Given:

There are given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019

Concept used:

We know that the total angle at the center of the circle in a pie chart = 360°

Calculation:

The total girls in five schools = $320 + 400 + 580 + 540 + 560 = 2400$

The number of girls in school C = 580

The angle = $(580/2400) \times 360^\circ = 87^\circ$

\therefore The central angle (in degrees) of the sector representing the number of girls in school C will be 87°

53. Answer: c

Explanation:

Given:

The sides of the triangular field are 60 m, 175 m, and 185 m

The area of the triangular field = The area of the rectangular park

In rectangular park, length : width = 21 : 10

Formula used:

The area of a triangle with sides a, b, and c = $\sqrt{[s (s - a) (s - b) (s - c)]}$

Where, semi-perimeter (s) = $(a + b + c)/2$

The area of a rectangle = Length \times Width

The perimeter of a rectangle = 2 (Length + Width)

Calculation:

The semi-perimeter = $(60 + 175 + 185)/2 = 420/2 = 210$ m

The area of the triangular field = $\sqrt{[210 (210 - 60) (210 - 175) (210 - 185)]}$

$$= \sqrt{(210 \times 150 \times 35 \times 25)}$$

$$= 5250$$

Let, length of the rectangular park = 21x

Width of the rectangular park = 10x

$$\text{So, } 21x \times 10x = 5250$$

$$\Rightarrow 210x^2 = 5250$$

$$\Rightarrow x^2 = 5250/210$$

$$\Rightarrow x^2 = 25$$

$$\Rightarrow x = \sqrt{25} = 5$$

So, length = $21 \times 5 = 105$ m

Width = $10 \times 5 = 50$ m

Then, the perimeter of the rectangular park = $2(105 + 50) = 2 \times 155 = 310$ m

\therefore The perimeter (in m) of the park is 310 m

54. Answer: d

Explanation:

Given:

The total terms in the given data = 14

Concept used:

Mode: In a data set, the mode is the value that appears most of the time.

Median: The median is the point in a data set where half of the data points are less and half are greater than the median. You have to arrange the data in ascending order from smallest to greatest. The median is the middle data point in the list if the number of data points is odd.

Mean = Sum of the terms/Number of terms

Calculation:

Ascending order of the given data: 2, 3, 3, 4, 5, 5, 5, 6, 6, 7, 7, 8, 9, 9

Here, the value 5 appears the most number of times in the given data.

Mode of the data set = 5

$$\text{Median of the data set} = (5 + 6)/2 = 11/2 = 5.50$$

$$\text{Mean of 5 and 5.50} = (5 + 5.50)/2 = 10.50/2 = 5.25$$

∴ The mean of the mode and median of the given data is 5.25

55. Answer: a

Explanation:

Given:

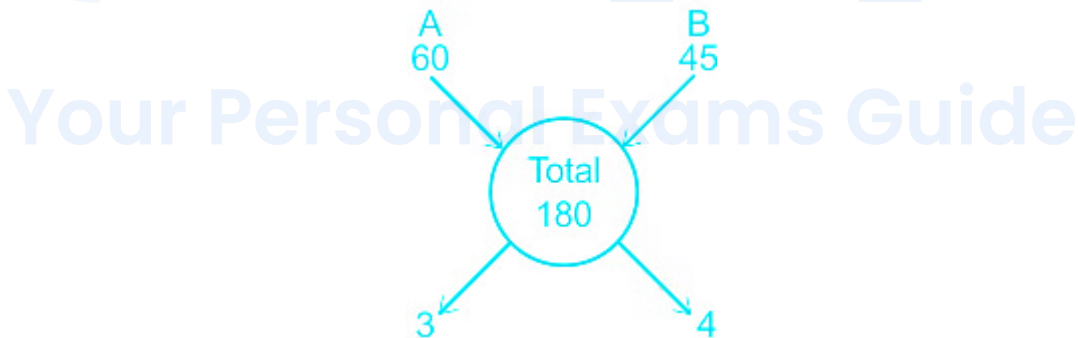
A can do 40% of a work in 24 days

B can do $33\frac{1}{3}$ % of the same work in 15 days

Concept used:

Work done = Efficiency × Time

Calculation:



$$\text{A can do 100\% work} = (24/40) \times 100 = 60 \text{ days}$$

$$\text{B can do 100\% work} = (15/ 33\frac{1}{3}) \times 100 = 45 \text{ days}$$

Total work = 180 (LCM of 60 and 45)

$$\text{Total work done by A and B in 1 day} = 3 + 4 = 7 \text{ units}$$

$$\text{A and B complete works in 15 days} = 7 \times 15 = 105 \text{ units}$$

Remaining work = $180 - 105 = 75$ units

C can do work in 1 day = $75/10 = 7.5$ units

35% of total work = $180 \times (35/100) = 63$ units

Time taken by A and C to complete 63 unit work = $63/(3 + 7.5) = 63/10.5 = 6$ days

\therefore A and C together can complete 35% of the same work in 6 days

56. Answer: d

Explanation:

Given:

X can do a certain work in 40 hours

Y is 25% more efficient than X

Z is 28% more efficient than Y

Concept used:

Total work = Efficiency \times Time

Calculation:

The efficiency of Y = 125% of X = $125X/100$

The efficiency of Z = 128% of Y = $(125X/100) \times (128/100)$

$X : Y : Z = X : (125X/100) : (125X/100) \times (128/100)$

$= X : 5X/4 : 8X/5$

$= 20 : 25 : 32$

Total work = $20 \times 40 = 800$ units [\because X complete in 40 hours]

So, Time required for X, Y, and Z together = $800 / (20 + 25 + 32) = 800 / 77$ hours

∴ X, Y and Z will complete the same work in $800 / 77$ hours

57. Answer: c

Explanation:

★ Shortcut Trick

Let, D's height = 100 units

∴ C's height = $100 + 30\% = 130$ units

∴ B's height = $130 - 20\% = 104$ units

∴ A's height = $104 + 20\% = 124.8$ units

Here, C's height - A's height → $(130 - 124.8)$ units = $6.8 \rightarrow 5.2$ units = 6.8

∴ 104 units = $(6.8 / 5.2) \times 104 = 136$

∴ The height (in cm) of B is 136 cm

★ Alternate Method

Given:

The height of A is 20% more than that of B

The height of B is 20% less than that of C

The height of C is 30% more than that of D

Calculation:

Let, the height of D = x

The height of C = $130x / 100 = 13x / 10$

$$\text{The height of B} = (13x/10) \times 80/100 = (13x/10) \times 4/5 = 26x/25$$

$$\text{The height of A} = (26x/25) \times (120/100) = 156x/125$$

$$\text{So, } (13x/10) - (156x/125) = 6.8$$

$$\Rightarrow 13x/250 = 68/10$$

$$\Rightarrow 13x/25 = 68$$

$$\Rightarrow x = (25 \times 68)/13$$

$$\therefore \text{B's height} = (26/25) \times [(25 \times 68)/13] = 136 \text{ cm}$$

\therefore The height (in cm) of B is 136 cm

58. Answer: b

Explanation:

Given:

There are given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019

Total number of schools = 5

Calculation:

$$\text{The average girls in five schools} = (320 + 400 + 580 + 540 + 560)/5 = 2400/5 = 480$$

$$\text{So, } 480 + 25\% = 480 \times 125/100 = 600$$

In the given bar graph, the number of boys in school D = 600

\therefore The number of boys 25% more than the average number of girls in all five schools in school D

59. Answer: d

Explanation:

Given:

The ratio of the present incomes of X and Y = 5 : 8

Calculation:

The ratio of the present incomes of X and Y = 5 : 8(1)

The ratio of income of X in the last year and in the present year = 2 : 3(2)

The ratio of income of Y in the last year and in the present year = 3 : 4(3)

To equate the present year income of X and Y in the above equation, we will multiply 3 in equation (1), 5 in equation (2) and 6 in equation (3)

The ratio of the present incomes of X and Y = 15 : 24(4)

The ratio of income of X in the last year and in the present year = 10 : 15(5)

The ratio of income of Y in the last year and in the present year = 18 : 24(6)

Let, last year income of X = 10x

The last year income of Y = 18x

So, $10x + 18x = 56000$

$\Rightarrow 28x = 56000$

$\Rightarrow x = 56000/28 = 2000$

The present year income of Y = $24 \times 2000 = \text{Rs. } 48000$

\therefore The present income of Y is Rs. 48000

60. Answer: c

Explanation:

Given:

Rs. 9000 becomes Rs. 10080 at 4% interest

Formula used:

$$\text{Simple interest} = (p \times r \times t)/100$$

Where, p = Total sum of amount

r = Rate of interest

t = Time (years)

Calculation:

$$\text{Total simple interest} = 10080 - 9000 = \text{Rs. } 1080$$

Let, the time required = T

$$\text{So, } 1080 = (9000 \times 4 \times T)/100$$

$$\Rightarrow T = (1080 \times 100)/(9000 \times 4) = 3$$

\therefore The total time = 3 years

$$\text{Then, } (6900 - x) = (x \times 5 \times 3)/100$$

$$\Rightarrow (6900 - x) = 3x/20$$

$$\Rightarrow x = (6900 - x) (20/3)$$

$$\Rightarrow x = 46000 - 20x/3$$

$$\Rightarrow x + 20x/3 = 46000$$

$$\Rightarrow 23 x/3 = 46000$$

$$\Rightarrow x = 46000 \times (3/23) = 6000$$

∴ The value of x is 6000

61. Answer: d

Explanation:

Given:

Initial selling price = Rs. 1122

Loss = 12%

Final selling price = Rs. 1224

Formula used:

$$\text{C.P.} = [100 / (100 - \text{Loss}\%)] \times \text{S.P.}$$

$$\text{Loss} = \text{C.P.} - \text{S.P.}$$

$$\text{Loss}\% = (\text{Loss} / \text{C.P.}) \times 100$$

Calculation:

$$\text{The cost price} = [100 / (100 - 12)] \times 1122 = 100 / 88 \times 1122 = \text{Rs. } 1275$$

$$\text{Here, final loss} = 1275 - 1224 = \text{Rs. } 51 \quad [∵ \text{C.P.} > \text{S.P.}]$$

$$\text{The loss percentage} = (51 / 1275) \times 100 = 4\%$$

∴ The loss percentage is 4%

62. Answer: a

Explanation:

Given:

The average of the 3-digit numbers 372, $2x5$, and $x37 = 498$

Formula used:

Average = Sum of the terms/Number of the terms

Calculation:

Second number = $2x5 = 200 + 10x + 5 = 10x + 205$

Third number = $x37 = 100x + 37$

$$\Rightarrow (372 + 10x + 205 + 100x + 37)/3 = 498$$

$$\Rightarrow 110x + 614 = 498 \times 3$$

$$\Rightarrow 110x = 1494 - 614$$

$$\Rightarrow 110x = 880$$

$$\Rightarrow x = 880/110 = 8$$

Then, the average of $(2x + 7)$ and $(5x - 2) = [(2 \times 8 + 7) + (5 \times 8 - 2)]/2$

$$= (23 + 38)/2$$

$$= 61/2 = 30.5$$

\therefore The average of $(2x + 7)$ and $(5x - 2)$ is 30.5

63. Answer: d

Explanation:

Given:

There are given bar graph that shows the number of students (boys and girls) in different schools on 1 July 2019

Calculation:

The total number of boys in schools A and D = $480 + 600 = 1080$

So, 75% of 1080 = $1080 \times (75/100) = 810$

The total number of students in school E = $540 + 560 = 1100$

The percentage = $(810/1100) \times 100 = 73.63\% \approx 73.6\%$

\therefore The less percentage = $(100 - 73.6)\% = 26.4\%$

\therefore 75% of the total number of boys in schools A and D is 26.4% less than the total number of students in school E

64. Answer: a

Explanation:

Given;

A sum of the amount becomes 8000 in 4 years and 8400 in 5 years at compound interest

Formula used:

At compound interest, the final amount = $P \left(1 + \frac{r}{100}\right)^n$

Where, P = The sum of the amount

r = Rate of interest

n = Time (years)

Calculation:

Here, Rs. 8000 becomes Rs. 84000 at compound interest in one year.

Let, the rate of interest = R

$$\text{So, } 8400 = 8000 \left(1 + \frac{R}{100}\right)^1$$

$$\Rightarrow (100 + R)/100 = 8400/8000 = 21/20$$

$$\Rightarrow (100 + R) = (21/20) \times 100 = 105$$

$$\Rightarrow R = 105 - 100 = 5$$

\therefore The rate of interest = 5%

$$\text{The amount will become at 6th year} = 8400 \left(1 + \frac{5}{100}\right)^6$$

$$= 8400 \times (105/100)^6$$

$$= \text{Rs. } 8820$$

\therefore The amount of the same sum at the end of the 6th year will be Rs. 8820

65. Answer: d

Explanation:

Given:

A shopkeeper sold 480 pens at the cost price of 600 pens.

He sold 100 pens at a 10% higher rate than that at which he sold 480 pens.

Formula used:

$$\text{Profit\%} = (\text{S.P.} - \text{C.P.})/\text{C.P.} \times 100$$

Where, S.P. = Selling price; and C.P. = Cost price

Calculation:

Let, the price of one pen = Rs. 1

The cost of 600 pens = Rs. 600

Also, the selling price of 480 pens = Rs. 600

\therefore The selling price of each pen = $600/480 = \text{Rs. } 1.25$

Also, $1.25 \times (110/100) = 1.375$

The total price of 100 pens = $1.375 \times 100 = \text{Rs. } 137.50$

He sold remaining pens at the cost price.

The remaining pens = $600 - (480 + 100) = 600 - 580 = 20$

The selling price of 20 pens = $20 \times 1 = \text{Rs. } 20$

Total selling price = $600 + 137.50 + 20 = \text{Rs. } 757.50$

Profit percentage = $[(757.50 - 600)/600] \times 100 = 157.50/6 = 26.25\%$

\therefore The profit percentage of the shopkeeper in the transaction is 26.25%

66. Answer: d

Explanation:

Given:

The ratio of the ages of A and B twelve years ago = 12 : 5

Twelve years from now, the ratio of their ages will be 18 : 11

Calculation:

Let, the age of A twelve years ago was = $12x$

The age of B twelve years ago was = $5x$

Total years between 'Twelve years ago from the present' and 'Twelve years after from present' = $12 + 12 = 24$ years

Then, $(12x + 24)/(5x + 24) = 18/11$

$$\Rightarrow 132x + 264 = 90x + 432$$

$$\Rightarrow 132x - 90x = 432 - 264$$

$$\Rightarrow 42x = 168$$

$$\Rightarrow x = 168/42 = 4$$

\therefore The difference between their present ages = $(12 \times 4 + 12) - (5 \times 4 + 12) = 60 - 32 = 28$ years

\therefore The difference between their present ages (in years) is 28 years

67. Answer: a

Explanation:

Given:

The bus covers a distance in 1 hour 30 minutes at a speed of $11 \frac{1}{9}$ m/sec

The car covers the same distance in 36 minutes

Formula used:

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

Calculation:

The speed of the bus = $11 \frac{1}{9}$ m/sec = $100/9$ m/s = $600/9$ meter/minutes [\because 1 minute = 60 seconds]

Time is taken by bus = 1 hour 30 minutes = $(60 + 30)$ minutes = 90 minutes

The distance = $(600/9) \times 90$ meters

The speed of the car = $[(600/9) \times 90]/36$ meter/minutes = $6000/36$ meter/minutes

Bus's speed : Car's speed = $(600/9) : (6000/36)$

$$= 2400 : 6000$$

$$= 2 : 5$$

∴ The ratio of the speeds of the bus and car is 2 : 5

68. Answer: b

Explanation:

Given:

The given expression = $18 - [6 - \{13 - (78 - 8 \div 2 \times 5 \text{ of } 3)\}]$

Calculation:

$$18 - [6 - \{13 - (78 - 8 \div 2 \times 5 \text{ of } 3)\}]$$

$$= 18 - [6 - \{13 - (78 - 8 \div 2 \times 5 \times 3)\}]$$

$$= 18 - [6 - \{13 - (78 - 4 \times 15)\}]$$

$$= 18 - [6 - \{13 - (78 - 60)\}]$$

$$= 18 - [6 - \{13 - 18\}]$$

$$= 18 - [6 - \{-5\}]$$

$$= 18 - [6 + 5]$$

$$= 18 - 11$$

$$= 7$$

∴ The value of the given expression is 7

69. Answer: d

Explanation:

Given:

Total distance = 150 km

Formula used:

Time = Distance/Speed

Calculation:

Let, the speed of outward journey = x km/h

So, the speed of return journey = $(x + 10)$ km/h

Then, $150/x - 150/(x + 10) = 2\frac{1}{2}$

$$\Rightarrow \frac{150(x+10) - 150x}{x(x+10)} = \frac{5}{2}$$

$$\Rightarrow \frac{150x + 1500 - 150x}{x(x+10)} = \frac{5}{2}$$

$$\Rightarrow \frac{1500}{x^2 + 10x} = \frac{5}{2}$$

$$\Rightarrow \frac{300}{x^2 + 10x} = \frac{1}{2}$$

$$\Rightarrow x^2 + 10x = 600$$

$$\Rightarrow x^2 + 10x - 600 = 0$$

$$\Rightarrow x^2 + 30x - 20x - 600 = 0$$

$$\Rightarrow x(x + 30) - 20(x + 30) = 0$$

$$\Rightarrow (x - 20)(x + 30) = 0$$

$$\Rightarrow x - 20 = 0 \Rightarrow x = 20$$

$$\Rightarrow x + 30 = 0 \Rightarrow x = -30 \text{ ("-" will be neglected)}$$

\therefore The speed of the return journey = $(20 + 10)$ km/h = 30 km/h

∴ The person's speed for the return journey, in km/h, was 30 km/h

70. Answer: b

Explanation:

Given:

The radius of a solid lead sphere = 2 cm

The number of spheres = 2541

The edge of the cube = x cm

Formula used:

The volume of a sphere = $(\frac{4}{3})\pi(\text{Radius})^3$

The volume of cube = $(\text{Edge})^3$

Calculation:

The volume of 2541 solid lead spheres = The volume of the cube

$$\text{So, } x^3 = 2541 \times (\frac{4}{3}) \times (\frac{22}{7}) \times 2^3$$

$$\Rightarrow x^3 = 85184$$

$$\Rightarrow x^3 = 44^3$$

$$\Rightarrow x = 44$$

∴ The value of x is 44 cm

71. Answer: d

Explanation:

Given:

The ratio of the number of boys and girls in a class = 5 : 7

The average score of boys = 48

The average score of girls is 25% more than that of boys

Formula used:

Average = Total sum of the terms/Number of the terms

Calculation:

Let, the number of boys = $5x$

The number of girls = $7x$

The total number of boys and girls = $5x + 7x = 12x$

So, the total score of boys = $5x \times 48 = 240x$

The average score of girls = $48 \times (125/100) = 60$

\therefore The total score of girls = $7x \times 60 = 420x$

Then, the average score of all boys and girls = $(240x + 420x)/12x$

= $660x/12x$

= 55

\therefore The average score in English of all the boys and girls in the class is 55

72. Answer: c

Explanation:

Given:

The given expression = $\frac{1}{5} \div \frac{3}{10}$ of $\frac{4}{9} - \frac{4}{5} \times 1\frac{1}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2}$

Calculation:

$$\begin{aligned} & \frac{1}{5} \div \frac{3}{10} \text{ of } \frac{4}{9} - \frac{4}{5} \times 1\frac{1}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2} \\ &= \frac{1}{5} \div \frac{2}{15} - \frac{4}{5} \times \frac{10}{9} \div \frac{8}{15} - \frac{3}{4} + \frac{3}{4} \div \frac{1}{2} \\ &= \frac{1}{5} \times \frac{15}{2} - \frac{4}{5} \times \frac{10}{9} \times \frac{15}{8} - \frac{3}{4} + \frac{3}{4} \times \frac{2}{1} \\ &= \frac{3}{2} - \frac{5}{3} - \frac{3}{4} + \frac{3}{2} \\ &= \frac{18-20-9+18}{12} \\ &= 7/12 \end{aligned}$$

∴ The value of the given expression is 7/12

73. **Answer: d**

Explanation:

★ Shortcut Trick

Let, the cost price = 100 units

∴ Market price = 100 + 100 of 35% = 135 units

The selling price = 135 - 135 of 20% = 108 units

So, 108 units = Rs. 432

⇒ 100 units = $(432/108) \times 100$ = Rs. 400

∴ The cost price of the article is Rs. 400

★ Alternate Method

Given:

The marked price of an article is 35% above its cost price

The selling price = Rs. 432

Formula used:

$$S.P. = (100 - \text{Discount\%})/100 \times M.P.$$

Calculation:

Let, the cost price of the article = x

Then, the market price = $135x/100$

$$\text{So, } (135x/100) \times [(100 - 20)/100] = 432$$

$$\Rightarrow (135x/100) \times (80/100) = 432$$

$$\Rightarrow x = 432 \times (100/135) \times (100/80)$$

$$\Rightarrow x = 400$$

\therefore The cost price of the article is Rs. 400

74. Answer: a

Explanation:

Given:

The given numbers are 5054, 5906 and 7397

After dividing by the greatest number x , the remainder in each case is the same.

Concept used:

The greatest number that will divide a , b , and c and leaving the same remainder in each case is given by the HCF of $|a - b|$, $|b - c|$, and $|c - a|$

Calculation:

$$\text{Here, } |5054 - 5906| = |-852| = 852$$

$$|5906 - 7397| = |-1491| = 1491$$

$$|7397 - 5054| = 2343$$

$$\text{Prime factors of } 852 = 2 \times 2 \times 3 \times 71$$

$$\text{Prime factors of } 1491 = 3 \times 7 \times 71$$

$$\text{Prime factors of } 2343 = 3 \times 11 \times 71$$

$$\therefore \text{HCF of } 852, 1491, \text{ and } 2343 = 3 \times 71 = 213$$

$$\text{So, the greatest number } (x) = 213$$

$$\text{The sum of the digits of } x = 2 + 1 + 3 = 6$$

$$\therefore \text{The sum of the digits of } x \text{ is } 6$$

75. Answer: a

Explanation:

Given: **Your Personal Exams Guide**

$$\text{The given expression} = 1\frac{1}{8} \div 1\frac{4}{5} \text{ of } [3\frac{1}{4} - (\frac{14}{25} + \frac{2}{5} \times 2\frac{4}{5} \div \frac{5}{3} \text{ of } \frac{7}{15})]$$

Calculation:

$$1\frac{1}{8} \div 1\frac{4}{5} \text{ of } [3\frac{1}{4} - (\frac{14}{25} + \frac{2}{5} \times 2\frac{4}{5} \div \frac{5}{3} \text{ of } \frac{7}{15})]$$

$$= \frac{9}{8} \div \frac{9}{5} \text{ of } [\frac{13}{4} - (\frac{14}{25} + \frac{2}{5} \times \frac{14}{5} \div \frac{7}{9})]$$

$$= \frac{9}{8} \div \frac{9}{5} \text{ of } [\frac{13}{4} - (\frac{14}{25} + \frac{2}{5} \times \frac{14}{5} \times \frac{9}{7})]$$

$$= \frac{9}{8} \div \frac{9}{5} \text{ of } [\frac{13}{4} - (\frac{14}{25} + \frac{36}{25})]$$

$$= 9/8 \div 9/5 \text{ of } [13/4 - 2]$$

$$= 9/8 \div 9/5 \times 5/4$$

$$= 9/8 \div 9/4$$

$$= 9/8 \times 4/9$$

$$= 1/2$$

∴ The value of the expression is $1/2$

76. Answer: b

Explanation:

The correct answer is the Wholesale Price Index.

★ Key Points

- A **wholesale price index (WPI)** is an index that measures and tracks the **changes in the price of goods** in the stages before the retail level.
- This refers to goods that are sold in bulk and traded between **entities or businesses**.
- Usually expressed as **a ratio or percentage**, the WPI shows the included goods' average price change.
- It is often seen as one indicator of a **country's level of inflation**.
- Wholesale price indexes (WPIs) are reported monthly in order to show the **average price changes of goods**.
- The total costs of the goods being considered in one year are then compared with the total costs of goods in the base year.
- The total prices for the base year are equal to 100 on the scale.
- Prices from another year are compared to that total and expressed as a percentage of change.

★ Additional Information

- Consumer price index (CPI):

- It is a price index, the price of a weighted average market basket of consumer goods and services purchased by households.
- Changes in measured CPI track changes in prices over time.
- **Inflation:**
 - Inflation is a general **increase in the prices of goods and services** in an economy.
 - When the general price level rises, each unit of currency buys fewer goods and services; consequently, inflation corresponds to a reduction in the purchasing power of money.

77. **Answer: b**

Explanation:

The correct answer is Mahendra Singh Dhoni.

★ **Key Points**

- **Dhoni** has captained India in more **international games** than any other cricketer (**332**). No cricketer has captained India to more **victories** in international cricket than Dhoni (**178**).
- The three major ICC trophies in white-ball cricket have never been won by another captain in the history of the sport.
- MS Dhoni is an **Indian professional cricketer** who was captain of the Indian national cricket team in limited-overs formats from **2007 to 2017** and in Test cricket from 2008 to 2014. He is a **right-handed wicket-keeper** batsman.
- He led the team to **three ICC trophies** including the **2007 ICC World Twenty20, 2011 ICC Cricket World Cup and 2013 ICC Champions Trophy**.
- Under his captaincy, India won the **Asia Cup two times** , in 2010 and 2016.
- India also won ICC Test Championship Mace two times in **2010 and 2011** under his leadership.
- He announced his **retirement** from Test format on 30 December 2014 and stepped down as captain of T20Is and ODIs in 2017.
- On **15 August 2020** , Dhoni retired from all formats of international cricket.
- He continues to play in the IPL.

★ Additional Information

• **Kapil Dev:**

- Kapil Dev Ramlal Nikhanj is an Indian former cricketer.
- He was a hard-hitting middle-order batsman and a fast-medium bowler.
- In 2002, Wisden named him the Indian Cricketer of the Century.
- Dev led the Indian cricket team to victory in the 1983 Cricket World Cup, becoming the first Indian captain to do so.
- At the age of 24, Dev remains the youngest captain of any team to have won the World Cup.
- He retired in 1994 while also holding the world record for most Test cricket wickets taken, a mark that was surpassed by Courtney Walsh in 2000.

• **Sourav Ganguly:**

- Sourav Chandidas Ganguly affectionately known as Dada is an Indian cricket administrator, commentator and former national cricket team captain who is the 39th and current president of the Board of Control for Cricket in India (BCCI).
- He is popularly honoured as Maharaja of Indian Cricket.

• **Virat Kohli:**

- He is an Indian international cricketer and former captain of the India national cricket team.
- He plays for Delhi in domestic cricket and Royal Challengers Bangalore in the Indian Premier League as a right-handed batsman.
- He has won Man of the Tournament twice at the ICC World Twenty20 (in 2014 and 2016).
- He also holds the world record of being the fastest to 23,000 international runs.

78. **Answer: c**

Explanation:

The correct answer is The Governor is appointed by the President.

★ Key Points

- According to Article 155, The Governor of a State shall be appointed by the President by warrant under his hand and seal.

★ Additional Information

- **Article 156. Term of office of Governor :**
 - The Governor shall hold office during the pleasure of the President.
 - The Governor may, by writing under his hand addressed to the President, resign his office.
 - Subject to the foregoing provisions of this Article, a Governor shall hold office for a term of five years from the date on which he enters upon his office.
 - Provided that a Governor shall, notwithstanding the expiration of his term, continue to hold office until his successor enters upon his office.
- **There is no age limit for appointment as Governor.**

79. Answer: c

Explanation:

The correct answer is Article 61.

★ Key Points

- **Article 61– Procedure for impeachment of the President:**
 - When a President is to be impeached for violation of the Constitution, the charge shall be preferred by either House of Parliament.
 - **No such charge shall be preferred unless:**
 - The proposal to prefer such charge is contained in a resolution which has been moved after at least fourteen days' notice in writing signed by not less than one-fourth of the total number of members of the House has been given of their intention to move the resolution, and
 - Such resolution has been passed by a majority of not less than two-thirds of the total membership of the House.
 - When a charge has been so preferred by either House of Parliament, the other House shall investigate the charge or cause the charge to be

investigated and the President shall have the right to appear and to be represented at such investigation.

- If as a result of the investigation a resolution is passed by a majority of not less than two-thirds of the total membership of the House by which the charge was investigated or caused to be investigated, declaring that the charge preferred against the President has been sustained, such resolution shall have the effect of removing the President from his office as from the date on which the resolution is so passed.

★ **Additional Information**

- **Article 67– Term of office of Vice-President:**
 - The Vice-President shall hold office for a term of five years from the date on which he enters upon his office: Provided that:
 - A Vice-President may, by writing under his hand addressed to the President, resign his office;
 - A Vice-President may be removed from his office by a resolution of the Council of States passed by a majority of all the then members of the Council and agreed to by the House of the People; but no resolution for the purpose of this clause shall be moved unless at least fourteen days' notice has been given of the intention to move the resolution;
 - A Vice-President shall, notwithstanding the expiration of his term, continue to hold office until his successor enters upon his office.
- **Article 51– Promotion of international peace and security:**
 - The State shall endeavour to
 - promote international peace and security;
 - maintain just and honourable relations between nations;
 - foster respect for international law and treaty obligations in the dealings of organized peoples with one another; and
 - encourage settlement of international disputes by arbitration.
- **Article 52– The President of India:**
 - There shall be a President of India.

80. Answer: c

Explanation:

The correct answer is Margaret Atwood and Bernardine Evaristo.

★ Key Points

- Canadian writer **Margaret Atwood** and British author **Bernardine Evaristo** were announced as **joint winners of the 2019 Booker Prize**.
- Atwood was awarded the prize for her book '**The Testaments**', **Bernardine Evaristo** bagged it for '**Girl, Woman, Other**'.
- **Evaristo** is also the **first black woman** to win the **Booker Prize**.

★ Additional Information

- The **Booker Prize**, formerly known as the Booker Prize for Fiction (1969–2001) and the Man Booker Prize (2002–2019).
- A seven-person panel constituted by authors, librarians, literary agents, publishers, and booksellers is appointed by the Booker Prize Foundation.

81. Answer: b

Explanation:

The correct answer is vibration.

★ Key Points

- **Vibration** is the mechanical oscillations of an object about an equilibrium point.
- The oscillations may be regular such as the motion of a pendulum or random such as the movement of a tire on a gravel road.
- Vibration enters the body from the part of the body or organ in contact with vibrating equipment.
- When a worker operates hand-held equipment such as a chain saw or jackhammer, vibration affects hands and arms.
- Such exposure is called hand-arm vibration exposure.

- When a worker sits or stands on a vibrating floor or seat, the vibration exposure affects almost the entire body and is called whole-body vibration exposure.

★ Additional Information

- **Impulse:**
 - Impulse is a term that quantifies the overall effect of a force acting over time. It is conventionally given the symbol ' J ' and expressed in Newton seconds.
 - For a constant force, $J = F \cdot \Delta t$
- **Convulsions:**
 - A convulsion occurs when a person's muscles contract uncontrollably.
 - They can continue for a few seconds or many minutes.
 - A convulsion might obstruct a person's airway, leading to suffocation.
- **Swing:**
 - Swing is an example of simple harmonic motion because
 - It has to and fro motion or the back and forth repetitive movements along the same line and about a mean position.

82. Answer: c

Explanation:

The correct answer is TB Macaulay.

★ Key Points

- English became the official language for the government and courts in 1835, and it was chosen as the official language of teaching. Lord Macaulay was effective in westernizing education in India.
- On February 2, 1835, he circulated Minute on Education -- a treatise that offered definitive reasons for why the East India Company and the British government should spend money on the provision of English language education, as well as the promotion of European learning, especially the sciences, in India.

- The Minute is based on the idea that English education is not just superior in 'science', but would also inculcate superior morals, etc. that were responsible for making the English superior.
- While the Minute acknowledged the historic role of Sanskrit and Arabic literature in the subcontinent, it also contended that they had limitations.
- Just about a month after its circulation, the Minute became policy, when William Bentinck (Governor-General of India) got convinced enough to sign the resolution.

★ **Additional Information**

- **Jonathan Duncan:**
 - Jonathan Duncan was Governor of Bombay from 27 December 1795 until his death in 1811.
 - Lord Cornwallis appointed him superintendent and resident in Benares in 1788, where he worked to put an end to the practice of infanticide.
 - He was appointed governor of Bombay in 1795 and served in that capacity for the remainder of his life (nearly sixteen years).
- **Warren Hastings:**
 - As the first Governor of the Presidency of Fort William (Bengal), the president of the Supreme Council of Bengal, and consequently the first de facto Governor-General of Bengal from 1772 to 1785, Warren Hastings was a British colonial administrator.
 - The British Empire in India is said to have been founded by him and Robert Clive.
- **William Jones:**
 - He was a British philologist, a puisne judge on the Supreme Court of Judicature in Fort William, Bengal, and an expert on ancient India.
 - He is most known for his theory that the Indo-European languages and the European languages share a common ancestor.
 - In the year 1784, Jones is also credited with founding the Asiatic Society of Bengal.

83. Answer: a

Explanation:

The correct answer is vegetative propagation.

★ Key Points

- **Asexual plant** propagation methods produce new plants from vegetative parts of the original plant, such as the leaves, stems and roots.
- These methods are generally referred to as **vegetative propagation**.
- The main advantage of vegetative propagation methods is that the new plants contain the genetic material of only one parent.
- So they are essentially clones of the parent plant.
- This can also help to maintain consistent quality and taste in products made from plants or crops.
- With **vegetative propagation**, plants also bypass the immature seedling phase and therefore reach the mature phase sooner.
- This can save a lot of time and money for commercial plant production.
- A plant can reproduce asexually in two ways: naturally and artificially.
- **Natural vegetative** propagation occurs when an axillary bud grows into a lateral shoot and develops its own roots (also known as **adventitious roots**).
- Plant structures allowing natural vegetative propagation include bulbs, rhizomes, stolons and tubers.
- **Artificial vegetative propagation:**
 - Horticulturalists and gardeners also use vegetative propagation methods that plants don't use naturally.
- These methods involve taking a piece of one parent plant and causing it to regenerate itself into a new plant.
- **Common methods include cuttings, grafting and budding, and tissue culture.**

★ Additional Information

- **Layering propagation :**
 - Layering is a method of asexual propagation in which a stem is made to produce roots while still attached to the parent plant. The parent plant provides the new plant with water and nutrients while the roots are

forming. Layering can be used for plants that are difficult to propagate using other methods.

- **Budding propagation:**
 - Propagation by budding is a pretty common method of plant propagation, in which a plant bud is grafted onto the stem of a rootstock plant.
 - Trees propagated through budding include dogwood, birch, maple, mountain ash, redbud and Ginko.
- **Grafting propagation:**
 - Grafting is a method of asexual plant propagation that joins plant parts from different plants together so they will heal and grow as one plant.
 - This technique is used to propagate plants that do not root well from cuttings, utilize superior root systems, or maintain clonal production.

84. Answer: d

Explanation:

The correct answer is Greta Thunberg.

★ Key Points

- **Greta Tintin Eleonora Ernman Thunberg** is a **Swedish environmental activist** who is known for challenging world leaders to take immediate action for climate change mitigation.
- Her influence on the world stage has been described by The Guardian and other newspapers as the "**Greta effect**".
- She received numerous honours and awards, including an honorary Fellowship of the Royal Scottish Geographical Society, inclusion in Time's 100 most influential people, and being the youngest Time Person of the Year.
- Inclusion in the Forbes list of The World's 100 Most Powerful Women (2019), and nominations for the Nobel Peace Prize in 2019, 2020, and 2021.

★ Additional Information

- Lady Gaga:

- Lady Gaga is the stage name of Stefani Joanne Angelina Germanotta, an American actress, singer, and songwriter.
- She is renowned for her musical versatility.
- **Malala Yousafzai:**
 - Malala Yousafzai is a Pakistani advocate for girls' education and the recipient of the 2014 Nobel Peace Prize.
 - She received the honour at the age of 17, making her the youngest recipient of the Nobel Peace Prize ever.
 - She is also the first Pashtun and the second Pakistani to have ever won the prize.
- **Kylian Mbappe:**
 - He is a French professional footballer who plays as a forward for Ligue 1 club Paris Saint-Germain and the France national team.
 - He is considered one of the best players in the world and is reportedly the highest-paid.
 - He is renowned for his dribbling abilities, exceptional speed, and finishing.

85. Answer: c

Explanation:

The correct answer is Literature and Education.

★ Key Points

- For his contributions to **literature** in the year **2020**, eminent author **Shri Manoj Das** has received the **Padma Bhushan**, the third-highest civilian honour.
- He was an Indian writer who also wrote in English and Odia.
- **Manoj Das** received the Saraswati Samman in 2000.
- Kendra Sahitya Akademi has bestowed its highest award i.e Sahitya Akademi Award Fellowship.
- Das edited a cultural magazine, The Heritage, published in Chennai from 1985- to 1989.
- The magazine is no longer in circulation.

- He wrote columns on a quest for finding eternal truth in common lives in India's national dailies like **The Times of India, The Hindustan Times, The Hindu and The Statesman.**

86. Answer: d

Explanation:

The correct answer is 9.

★ Key Points

- **Uttar Pradesh** is the only state which shares its border with **9 other neighbouring states**:
 - Uttarakhand and Himachal Pradesh in the northwest, Delhi, Haryana, Rajasthan in the west, Madhya Pradesh in the south, Chhattisgarh in the southeast, Bihar and Jharkhand in the east.
- It also shares its **international border** with the neighbouring country, **Nepal**.
- The state of Uttar Pradesh lies in the northern part of India.
- **Hindi and Urdu** are their official and most extensively spoken languages.
- It was established as **United Province on April 1st, 1937**, and afterwards changed its name to **Uttar Pradesh**.
 - **The state's administrative capital:** Lucknow
 - **The judicial capital:** Allahabad.
 - **Districts:**75
 - **State's official motto:** 'Protection of Good, Destruction of Bad.'
 - **Governor:** Anandiben Patel
 - **Chief Minister:**Yogi Adityanath
 - **National Park:** Dudhwa National Park, Lakhimpur Kheri
- Uttar Pradesh is the land of the Ganga Yamuna doab region.
- The two main rivers of the state; **Ganga and Yamuna** flow through the state before emptying into the Bay of Bengal.
- There are several **tiger reserves and wildlife sanctuaries** in the state such as **Bakhira wildlife sanctuary, Pilibhit Tiger Reserve, Parvati Arga Bird Sanctuary, Gonda, Saman Sanctuary, Mainpuri, etc**

87. Answer: d

Explanation:

The correct answer is Lord Shiva.

★ Key Points

- The **Elephanta Caves** are a group of cave temples mostly honouring **Shiva** , a Hindu deity.
- They are located on **Elephanta Island** , also known as **Gharapuri, in Mumbai Harbour**.
- The island, which is located about two kilometres west of the Jawaharlal Nehru Port, is made up of two Buddhist caves with water tanks, a few stupa mounds from the second century BCE, and five Hindu caves.
- Rock-cut stone sculptures, the majority of which are in high relief, may be seen at the Elephanta Caves and display a synthesis of **Buddhist and Hindu concepts** and iconography.
- The strong **basalt rock** was used to carve out the caves.
- There are legends that suggest that the great warrior Prince of the Chalukya Dynasty - Pulkesin II built the Lord Shiva shrine, to celebrate his victory.
- **Trimurti Sadasiva is the main sculpture inside the Elephanta Caves.**
- The image, **20 ft in height** , is that of the three-headed Lord, representing Panchamukha (five-headed) Shiva.
- At Elephanta Caves, Lord Shiva is also depicted as Yogisvara - Lord of Yogis, seated on a lotus, and as Shiva Nataraja, the many-armed cosmic dancer.
- An amazing dance festival is held at Elephanta Island every February, hosted by the Maharashtra Tourism Development Corporation (MTDC).

88. Answer: c

Explanation:

The correct answer is Karakoram Pass.

★ Key Points

- The **Karakoram Pass** is a mountain pass that connects **China and India** at a height of 18,176 feet (5,540 metres).
- On the **old caravan route** between Leh, Ladakh, and Yarkand, in the Tarim Basin, it is the highest pass.
- In **Mongolic**, "Karakoram" literally translates as "**Black Gravel**."
- On the approaches to the pass, there is essentially no vegetation.
- The Ladakh area of India and the Xinjiang autonomous region of China are separated by the Karakoram pass.
- It also plays a major geographic role in the dispute between Pakistan and India over control of the Siachen Glacier area immediately to the southwest of the pass.
- The Simla Agreement, which was signed by India and Pakistan in 1972, led to this predicament since the treaty neglected to include the last 100 km or so of the cease-fire line from the end of the Line of Control to the border with China.

★ Additional Information

- **Khyber pass:**
 - On Pakistan's border with Afghanistan, in the Khyber Pakhtunkhwa province, is the mountain pass known as Khyber Pass.
 - It travels across a portion of the Spin Ghar mountains to connect the town of Landi Kotal with the Valley of Peshawar at Jamrud.
 - It has been an important commerce route connecting Central Asia and the Indian subcontinent since it was a component of the historic Silk Road, and it has served as a key military choke point for the many nations that controlled it.
- **Zojila pass:**
 - In the Ladakh region of the Indian union territory, Zoji La is a high mountain pass in the Himalayas.
 - The pass, which is situated in the Dras, links the Indus Valley to the east with the Dras and Suru valleys to the northeast and the Kashmir Valley to the west.

- **Pangsau Pass:**

- On the boundary between India and Myanmar, Pangsau Pass is located at the peak of the Patkai Hills.
- From the Assam plains, the pass provides one of the simplest routes into Burma.
- It has the name of the nearest Burmese community, Pangsau, which is located 2 kilometres to the east of the pass.

89. Answer: b

Explanation:

The correct answer is real; virtual.

★ Key Points

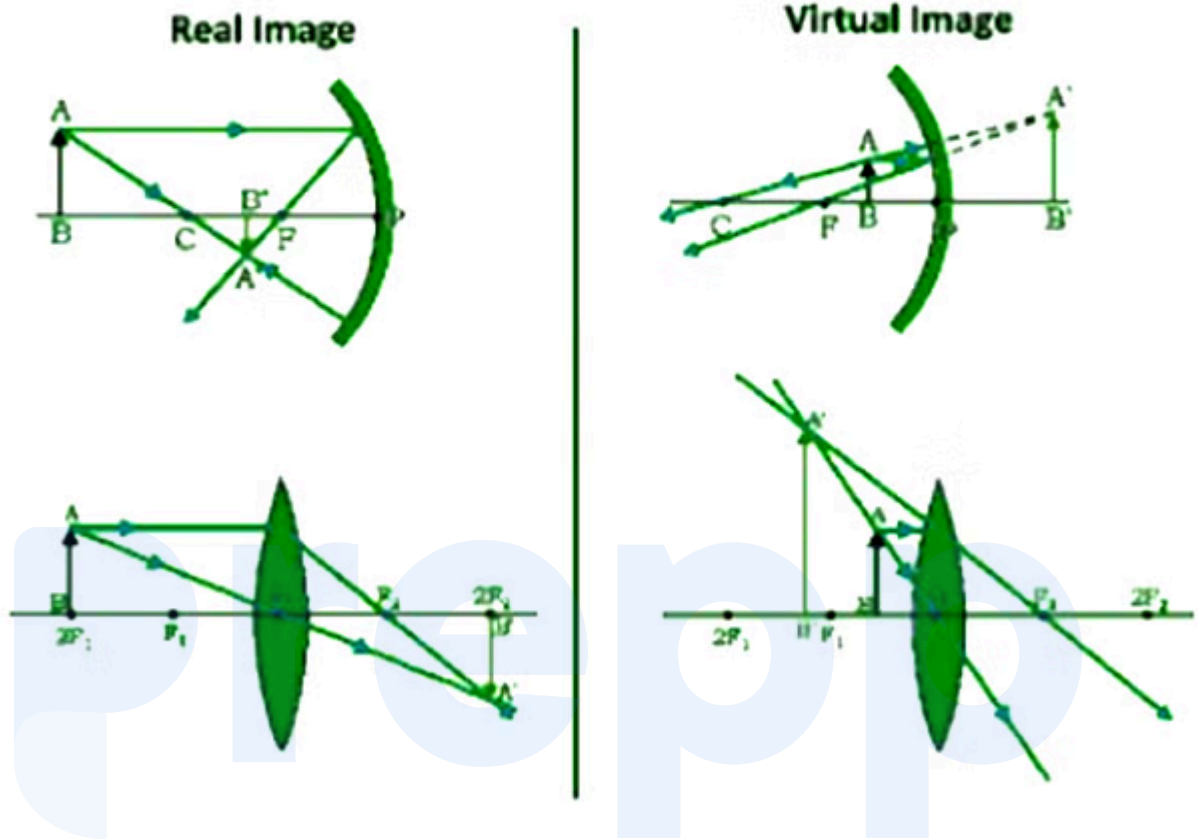
- **Real Image:**

- Real images are the sort of images that are formed thanks to the convergence of sunshine rays to some extent after being reflected or refracted from a mirror or lens.
- Real images are formed for a purpose where light rays undergo interaction with one another.
- Real images are inverted in nature and may be seen on screen.
- When multiple light rays strike the mirror, then by following laws of reflection, sunshine different rays again get reflected and meet to some extent ahead of the mirror.

- **Virtual Image :**

- Virtual images are pictures that only appear to be formed at an edge behind a mirror.
- However, really, the image isn't present there.
- In this case, when light from an object is allowed to strike the mirror and when light rays get reflected from the mirror then it's like the rays are diverging somewhere behind the mirror.
- **Virtual images are Erect.**

Real Image Vs Virtual Image



90. Answer: b

Explanation:

The correct answer is Warren Hastings.

★ Key Points

- As the **first Governor of the Presidency of Fort William (Bengal)**, the president of the Supreme Council of Bengal, and consequently the **first de facto Governor-General of Bengal** from 1772 to 1785, Warren Hastings was a **British colonial administrator**.
- The British Empire in India is said to have been founded by him and Robert Clive.

- He put in place the civil administration structure that served as the cornerstone of Anglo-Indian prosperity and security.
- **He implemented the following changes:**
 - Every district had two courts, one for civil issues and the other for criminal ones.
 - In Calcutta, there are now two high courts: Sadar Diwani Adalat and Sadar Faujdari Adalat.
 - He also goes by the name Bengal tiger.

★ Additional Information

- **Lord Cornwallis:**
 - He was a British Army general and official.
 - He is most known in the United States and the United Kingdom as one of the most prominent British generals in the American War of Independence.
 - Significant hostilities in North America came to an end when he submitted in 1781 to an alliance of American and French forces at the siege of Yorktown.
 - Later, he served as a civil and military governor in India, where he assisted in passing the Cornwallis Code and the Permanent Settlement, and in Ireland, where he contributed to the passage of the Act of Union.
- **Sir John Shore:**
 - From 1793 to 1798, John Shore, 1st Baron Teignmouth, a British official of the East India Company, presided as Bengal's governor-general.
 - He was made Baron Teignmouth in the Irish Peerage in 1798.
 - The British and Foreign Bible Society's first president was Shore.
- **Lord Wellesley:**
 - Richard Colley Wellesley, 1st Marquess Wellesley of Norragh was an Anglo-Irish politician and colonial administrator.
 - Between 1798 and 1805, he served as India's fifth Governor-General and established his reputation.
 - Later, he held the positions of Lord Lieutenant of Ireland and Foreign Secretary in the British Cabinet.
 - His troops invaded Mysore in 1799 and fought Tipu, the Sultan of Mysore, in a crucial conflict. He started the Second Anglo-Maratha War as well.

91. Answer: b

Explanation:

The correct answer is The US, Canada, and Mexico.

★ Key Points

- The FIFA World Cup 2026 will be the **first with three co-hosts** -- the **United States, Canada and Mexico** , which will give Mexico the distinction of being the first country to host games in three World Cups.
- FIFA selected the joint bid in 2018.
- The **2026 World Cup** will land in **16 cities** across the United States, Mexico and Canada.
- Sixty games are to be played in the U.S., including all from the quarterfinals on. Canada and Mexico are to host 10 games each.

★ Additional Information

- The FIFA World Cup, often simply called the World Cup, is an international association football competition contested by the senior men's national teams of the members of the Fédération Internationale de Football Association (FIFA), the sport's global governing body.
- Since the first competition in 1930.
- The championship has been given out every four years, with the exception of 1942 and 1946, when it was postponed due to the Second World War.
- France is the reigning champion after taking home a second title from the 2018 competition in Russia.
- **Brazil is the only team to have competed in every event and has won five times.**

92. Answer: b

Explanation:

The correct answer is Kunwar Singh.

★ Key Points

- During the **Indian Rebellion of 1857**, **Kunwar Singh**, also referred to as Babu Kunwar Singh, served as a military leader.
- He was a member of the Ujjainiya clan of the Parmar Rajputs of Jagdispur, which is now a part of the Bhojpur district in the Indian state of **Bihar**.
- At the age of 80, he led a small group of armed soldiers in an attack on the British East India Company's troops.
- He was in charge of planning the battle in Bihar against the British.
- He is sometimes referred to as Veer Babu Kunwar Singh or Veer Kunwar Singh.
- He gave a good fight and harried British forces for nearly a year and remained invincible until the end.
- He was an expert in the art of guerilla warfare.

★ Additional Information

- **Tatya Tope:**
 - One of the rebellion's major leaders and a general in **1857** was **Tatya Tope**.
 - Ramachandra Panduranga Yawalkar was born in Yeola to a Marathi Deshastha Brahmin family (near Nasik).
 - He advanced with the Gwalior contingent after the British retook Kanpur and forced General Windham to flee the city.
 - He was a personal supporter of **Nana Saheb of Bithur**.
 - Later, Tantia Tope rescued Rani Lakshmibai of Jhansi and joined her in capturing the city of Gwalior.
 - However, he was defeated at Ranod by General Napier's British Indian troops, and following a second setback at Sikar, he gave up the fight.
- **Bakht Khan:**
 - General Bakht Khan was commander-in-chief of the Indian independent forces in the region of Delhi during the Indian Rebellion of 1857 against the East India Company.
 - General Bakht Khan led the revolt of 1857 from Bareilly.
- **Nana Sahib:**

- He was an Indian Peshwa of the Maratha empire who was born as "Dhondu Pant".
- A soldier and nobleman, he led the uprising in Kanpur during the Great Revolt of 1857.
- Nana Saheb believed he was entitled to a pension from the East India Company as the adopted son of the exiled Maratha Peshwa Bajji Rao II, although the underlying contractual issues are quite hazy.
- He joined the uprising because of the Company's refusal to extend the pension after his father passed away and because of what he saw as stifling rules.

93. Answer: d

Explanation:

The correct answer is Telangana.

★ Key Points

- The **tribes** who live in the **Umji and Intraveli woods**, which are found in the **Adilabad district** of the state of **Telangana** in South India, practice a folk dance known as the Mathuri.
- The "**Koppu Lambadis**" is another name for the particular tribe that performs this style of dance.
- The Shravan rainy month is when this dance is done.
- While dancing, the dancers sing to themselves secular and devotional tunes.
- The other **folk dances** of Telengana include **Gusadi Dance, Kuchipudi, Perini Sivatandavam, Tribal Dhimsa Dance, Lambadi Dance**, etc.

★ Additional Information

- **Perini Sivatandavam:**
 - Perini Sivatandavam is a medieval dance form.
 - It came to light in the 12th century during the Kakatiya dynasty.
 - The dance form is associated with **Lord Shiva**.

- This is the dance of warriors, performed by men who dance to bells, conches, and drums.
- The Ramappa Temple in Warangal holds evidence of this dance form.
- **Dappu Dance:**
 - Dappu Nrityam or Dappu Dance is a dance form of **Telangana** .
 - This dance form is believed to have originated in the Nizamabad district of Telangana.
 - Dappu dance form derives its name from the harmoniously cadenced musical instrument 'Dappu,' which is drum-shaped like a tambourine.
 - Various names like Tapetta and Palaka know it.
- **Lambadi:**
 - It is an ancient folk dance of **Telangana** .
 - It originated in the tribes of Rajasthan, which were semi-nomadic.
 - These are known as Lambadis, Banjaras, or Sengalis.
 - The dance showcases tribal culture, highlighting their social ties, lifestyle, and religion.
 - The daily lives of farmers are reflected through this dance form and are performed to seek God's blessings for a good harvest.
- **Gussadi:**
 - It is a folk dance in Telangana performed by Raj Gonds of the Gondulu tribes in the Adilabad district.
 - The **Padma Shri honour 2021** was also bestowed upon the Gussadi dance exponent – **Kanaka Raju**.
 - Gonds Deepavali is the biggest festival for the Raj Gonds when the Gussadi dance is performed.
 - The dance begins on the full moon day and continues till the last day of the fortnight of Deepavali.
 - Every performer of the dance dons a turban with peacock feathers in it and deer horns.
 - They also sport artificial beards and moustaches, and goatskin on their body.

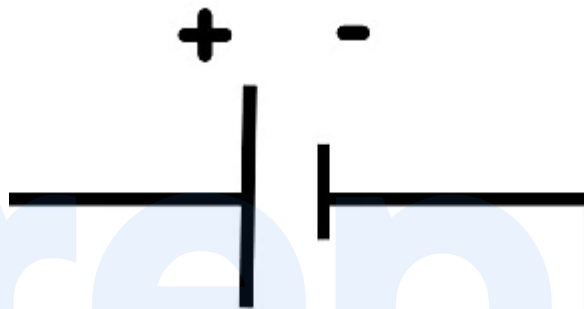
94. Answer: d

Explanation:

The correct answer is the negative terminal.

★ Key Points

- The **symbol** for a **cell** has two parallel lines at right angles to the connecting wires.
- The **bigger line** marks the **positive terminal** of the cell and the **shorter** , line marks the **negative terminal**.



★ Additional Information

- An **electric cell** is a device that **converts chemical energy into electrical energy**.
- It consists of two electrodes immersed in an electrolyte.
- **Several electric cells are connected to form a battery**.
- The electrons flow from the negative terminal to the positive terminal when a battery or cell is connected through the circuit.
- A battery produces potential differences across its terminals by using chemical reactions.
- This potential difference provides the energy vital to moving the electrons through the circuit.
- Thus, a cell or a battery is a chemically powered, self-contained device in which a limited amount of electrical output is generated whenever required.
- A cell converts the chemical energy stored within it into electrical energy slowly, used over time.
- **A cell is considered to be a source of emf or electromotive force**.
- The emf of a cell can be defined as the voltage supplied by a battery when there is no current flowing through the external circuit.

95. Answer: a

Explanation:

The correct answer is 15,000.

★ Key Points

- Prime Minister announced for setting up of **Rs.15000 crore** Animal Husbandry Infrastructure Development Fund (AHIDF) under the **Atma Nirbhar Bharat Abhiyan** stimulus package.
- The Animal Husbandry Infrastructure Development (AHIDF) has been approved for incentivizing investments by individual entrepreneurs, private companies, MSME, Farmers Producers Organizations (FPOs) and Section 8 companies to establish
 - (i) The dairy processing and value addition infrastructure,
 - (ii) Meat processing and value addition infrastructure and
 - (iii) Animal Feed Plant.

★ Additional Information

- **The main goal of AHIDF:**
 - To help to increase milk and meat processing capacity and product diversification thereby providing greater access for unorganized rural milk and meat producers to the organized milk and meat market.
 - To make available increased price realization for the producer.
 - To make available quality milk and meat products for the domestic consumer.
 - To fulfil the objective of protein-enriched quality food requirements of the growing population of the country and prevent malnutrition in one of the highest malnourished children populations in the world.
 - Develop entrepreneurship and generate employment.
 - To promote exports and increase the export contribution in the milk and meat sector.

- To make available quality concentrated animals feed to the cattle, buffalo, sheep, goat, pig and poultry to provide balanced ration at affordable prices.

96. Answer: a

Explanation:

The correct answer is James Prinsep.

★ Key Points

- **James Prinsep** was an English scholar, orientalist and antiquary.
- He was the founding editor of the Journal of the **Asiatic Society of Bengal** and is best remembered for deciphering the **Kharosthi and Brahmi scripts of ancient India**.
- In addition to pursuing his job in India as an assay master at the Benares Mint, he investigated, recorded, and drew numerous areas of numismatics, metallurgy, and meteorology.
- Prinsep made a series of watercolours titled Benares Illustrated.
- In A Series of Drawings while in Benares to illustrate his study of Indian temple construction, which was published between 1830 and 1834 in London.
- He also created a chapel, a new mint building, a network of canals in Bengal, and the new mint building in Benares.

★ Additional Information

- **Alexander Cunningham:**
 - Alexander Cunningham was an engineer with the British Army's Bengal Engineer Group who later developed a passion for Indian history and archaeology.
 - He established and organized what would later become the Archaeological Survey of India after being appointed to the newly created office of archaeological surveyor by the government of India in 1861. He was also Allan Cunningham's father, a mathematician.
- **Dayaram Sahni:**

- In 1921 and 1922, Dayaram Sahni, an Indian–British raj archaeologist, oversaw the excavation of the Indus valley site at Harappa.
- Sahni, a disciple of John Marshall, was named the first Indian Director–General of the Archaeological Survey of India (ASI) in 1931 and held that position until 1935.
- **John Marshall:**
 - Sir John Hubert Marshall was the Director–General of the Archaeological Survey of India from 1902 to 1928.
 - He was responsible for the excavations that led to the discovery of Harappa and Mohenjo–Daro, two of the key city sites of the Indus Civilisation.

97. Answer: a

Explanation:

The correct answer is New Delhi.

★ Key Points

- **Wildlife Crime Control Bureau** is a statutory multi-disciplinary body established by the Government of India under the Ministry of Environment and Forests, to combat organized wildlife crime in the country.
- The Bureau has its **headquarters in New Delhi** and:
 - five regional offices in Delhi, Kolkata, Mumbai, Chennai and Jabalpur;
 - three sub-regional offices at Guwahati, Amritsar and Cochin; and
 - five border units at Ramanathapuram, Gorakhpur, Motihari, Nathula and Moreh.

★ Additional Information

- **Under Section 38 (Z) of the Wild Life (Protection) Act, 1972, it is mandated**
 - To collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to State and other enforcement agencies for immediate action so as to apprehend the criminals;
 - To establish a centralized wildlife crime data bank;

- Co-ordinate actions by various agencies in connection with the enforcement of the provisions of the Act;
 - Assist foreign authorities and international organizations concerned to facilitate co-ordination and universal action for wildlife crime control;
 - Capacity building of the wildlife crime enforcement agencies for a scientific and professional investigation into wildlife crimes and assist State Governments to ensure success in prosecutions related to wildlife crimes;
 - and advise the Government of India on issues relating to wildlife crimes having national and international ramifications, relevant policy and laws.
- It also assists and advises the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of the Wild Life Protection Act, CITES and EXIM Policy governing such an item.

98. Answer: d

Explanation:

The correct answer is Lysosomes.

★ Key Points

- A **lysosome** is a membrane-bound cell organelle that contains digestive enzymes.
- Lysosomes are involved with various cell processes.
- They break down excess or worn-out cell parts.
- Besides degradation of polymers, the lysosome is involved in other processes, including secretion, plasma membrane repair, apoptosis, cell signalling, and energy metabolism.
- They may be used to **destroy invading viruses and bacteria**.
- If the cell is damaged beyond repair, lysosomes can help it to self-destruct in a process called **programmed cell death, or apoptosis**.
- The lysosomes are the **cell's "garbage disposal**.
- " In-plant cells, the digestive processes take place in vacuoles.

★ Additional Information

• **Vacuoles:**

- A vacuole is a membrane-bound cell organelle.
- In animal cells, vacuoles are generally small and help sequester waste products.
- In-plant cells, vacuoles help maintain water balance.
- Sometimes a single vacuole can take up most of the interior space of the plant cell.

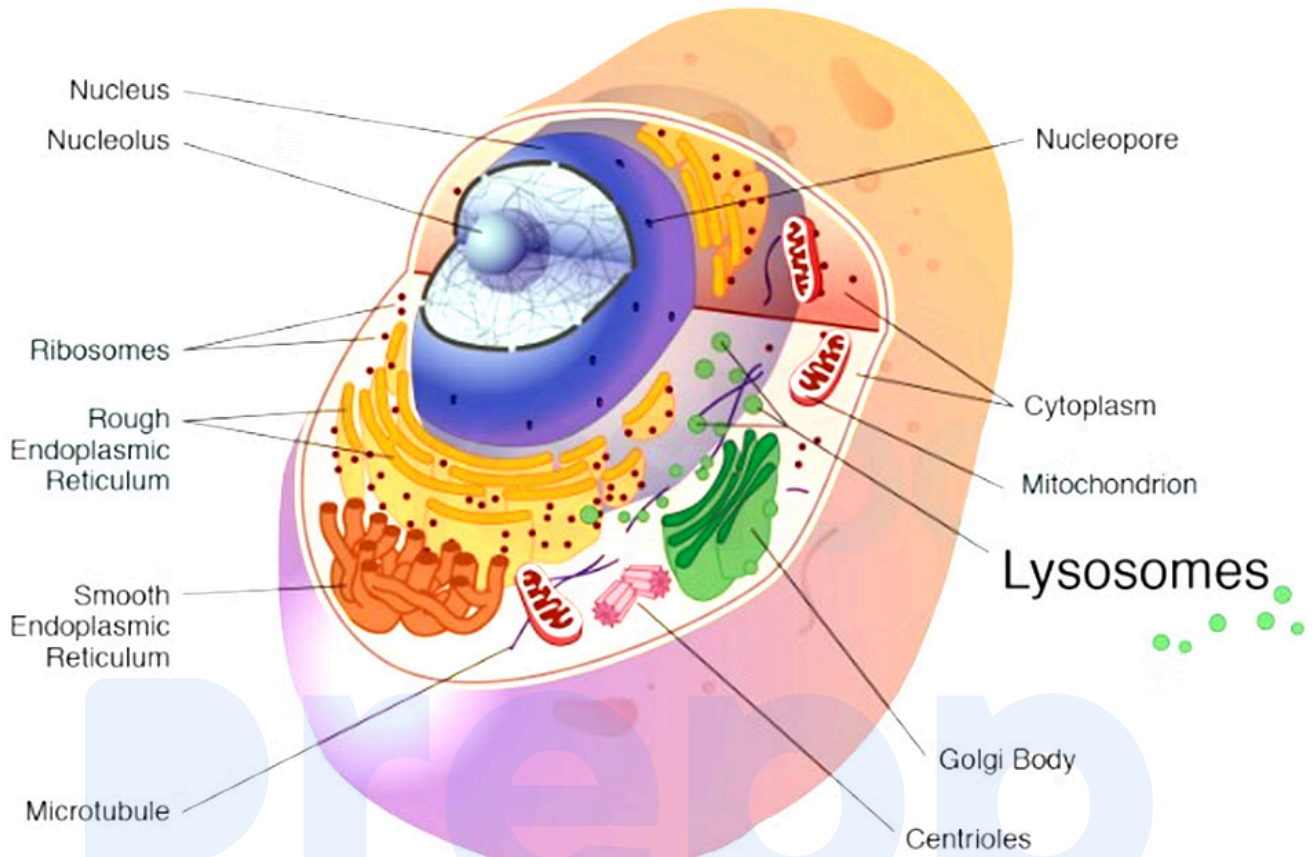
• **Endoplasmic reticulum:**

- The endoplasmic reticulum is, in essence, the transportation system of the eukaryotic cell, and has many other important functions such as protein folding.
- It is a type of organelle made up of two subunits – rough endoplasmic reticulum, and smooth endoplasmic reticulum.

• **Vesicles:**

- In cell biology, a vesicle is a structure within or outside a cell, consisting of liquid or cytoplasm enclosed by a lipid bilayer.
- Vesicles form naturally during the processes of secretion, uptake and transport of materials within the plasma membrane.

Your Personal Exams Guide



99. Answer: b

Explanation:

The correct answer is Gulzarilal Nanda.

★ Key Points

- Indian politician and economist **Gulzarilal Nanda** specialized in labour issues.
- Following the passing of Jawaharlal Nehru in 1964 and Lal Bahadur Shastri in 1966, he served as India's **Interim Prime Minister for two terms totalling 13 days each**.
- After the parliamentary party of the in-power Indian National Congress chose a new prime minister, both of his tenures came to an end.
- In 1997, he received the Bharat Ratna, India's highest civilian honour.

★ Additional Information

- **Indira Gandhi:**
 - A prominent member of the Indian National Congress, Indira Gandhi was a politician from India.
 - She was **India's third prime minister** and the **country's first and only female prime minister to date**.
 - She was Jawaharlal Nehru's, India's first prime minister, daughter. She was the second-longest-serving Indian prime minister after her father, in office from January 1966 to March 1977 and again from January 1980 till her assassination in October 1984.
- **Morarji Desai:**
 - Between 1977 to 1979, Morarji Desai, a politician and advocate for Indian independence, led the Janata Party-led administration as **India's fourth prime minister**.
 - He held a number of significant government positions over his long political career, including Chief Minister of Bombay State, Home Minister, Finance Minister, and Second Deputy Prime Minister of India.
- **Zakir Hussain:**
 - From May 13, 1967, through May 3, 1969, economist and politician **Zakir Hussain presided** over India as its **third president**.
 - Prior to it, he held the positions of second vice president of India from 1962 to 1967 and governor of Bihar from 1957 to 1962.
 - Along with becoming its vice-chancellor starting in 1928, he was also a co-founder of Jamia Millia Islamia.
 - Jamia developed strong ties to the Indian freedom struggle under Husain.
 - In 1963, he received the Bharat Ratna, India's highest civilian honour.

100. **Answer: a**

Explanation:

The correct answer is 100%.

★ Key Points

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** amended the Consolidated Foreign Direct Investment Policy 2017 to allow **100% FDI** in insurance intermediaries through the automatic route.
- This includes insurance brokers, reinsurance brokers, insurance consultants, corporate agents, third-party administrators, surveyors and loss assessors.
- Till now, FDI up to 49% was allowed in insurance intermediaries through the automatic route.
- According to the policy insurance intermediary with a majority shareholding of foreign investors will have to be incorporated as a limited company under the provisions of the Companies Act 2013.
- At least one among the chairman of the board of directors or the Chief Executive Officer (CEO) or principal officer or MD of the company shall be a resident Indian citizen.
- Besides, any non-insurance company, for instance, a bank with more than 50% revenue from a non-insurance business will have to adhere to the respective FDI limits for that particular sector.

★ Additional Information

- **Department for Promotion of Industry and Internal Trade (DPIIT):**
 - It is a central government department under the Ministry of Commerce and Industry in India.
 - It is responsible for the formulation and implementation of promotional and developmental measures for the growth of the industrial sector, keeping in view the national priorities and socio-economic objectives.
 - Piyush Goyal is the current minister and Shri. Anurag Jain, IAS, is the top bureaucrat.
- **Foreign Direct Investment Policy:**
 - It is when a company takes controlling ownership of a business entity in another country.
 - With FDI, foreign companies are directly involved with day-to-day operations in the other country.
 - This means they aren't just bringing money with them, but also knowledge, skills and technology.
 - FDI is subject to compliance with all relevant sectoral laws, regulations, rules, security conditions, and state/local laws/regulations.