

Prepp

Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC MTS Previous Year Paper (Held on: 12 Oct 2021 Shift 1)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General 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 ANTONYM of the given word. (+1, -0.25)

UNUSUAL

- a. Commonplace
- b. Questionable
- c. Fantastic
- d. Rare

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

TRANSPARENT

- a. Clear
- b. Opaque
- c. Pretty
- d. Shiny

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

According to a recent survey, around 60% of children under the age of 5 years has been immunised.

- a. a recent survey
- b. has been immunised

- c. according to
 - d. under the age
-

4. Direction: Select the most appropriate word to fill in the blank. (+1, -0.25)

The Health Minister has been discharged from the hospital, _____ he?

- a. hasn't
 - b. haven't
 - c. hadn't
 - d. didn't
-

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

I receive a lot of _____ from my family members, who are very encouraging.

- a. inspiration
 - b. expectation
 - c. ambition
 - d. invitation
-

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

I have no inform about today's meeting with the managing director.

- a. about today's meeting
- b. no inform
- c. I have
- d. with the

7. Select the INCORRECTLY spelt word.

(+1, -0.25)

- a. Identification
- b. Composition
- c. Application
- d. Suspention

8. Select the most appropriate word to fill in the blank.

(+1, -0.25)

Pravesh's teacher makes him feel as if he is _____.

- a. invisible
- b. incompetent
- c. inappropriate
- d. influential

9. Select the word which means the same as the group of words given.

(+1, -0.25)

Never wrong or making a mistake

- a. Untrustworthy

- b. Infallible
 - c. Ineligible
 - d. Incapable
-

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

Though they worked day and night to build the highway before the deadline they could not completed it.

- a. Though they worked
 - b. could not completed
 - c. to build the highway
 - d. day and night
-

11. Direction: 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)

Anurag asked me why didn't you pay the driver.

- a. didn't I paid
 - b. you didn't pay
 - c. I didn't pay
 - d. No substitution required
-

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

Drop in

- a. Have very little effect
- b. Reduce in numbers
- c. Go back on a promise
- d. Pay a casual visit

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

- a. Justifiable
- b. Eligible
- c. Identifiable
- d. Legible

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

GLITTERING

- a. Shingly
- b. Attractive
- c. Dull
- d. Shiny

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

A turning point

- a. The time when people decide to give up plans
 - b. A change of destiny that is surprising
 - c. A decision to turn things around
 - d. The time at which an important change starts
-

16. Direction: 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)

These days my parents are been taking great care of my health and want me to eat nuts and seeds, which are rich in vitamins and miners.

- a. No substitution required
 - b. were taking
 - c. will have taken
 - d. are taking
-

17. Direction: 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)

Cakes are Jaya's favourite snack, even samosas is Aparna's preferred choice.

- a. No substitution required
- b. either samosa are

- c. but samosas be
 - d. while samosas are
-

18. Select the word which means the same as the group of words given. (+1, -0.25)

One who treats and prevents diseases of the heart

- a. Cardiologist
 - b. Pediatrician
 - c. Neurologist
 - d. Pathologist
-

19. Direction: Select the most appropriate word to fill in the blank. (+1, -0.25)

The office superintendent asked me to leave my job application
----- him.

- a. with
 - b. to
 - c. behind
 - d. between
-

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

POLLUTION

- a. Creation

- b. Expansion
- c. Contamination
- d. Aggravation

21. Direction: 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)

With Covid-19 cases going down in Delhi many hospitals have _____ (1) _____ shifting their focus to other facilities for the treatment of non-Covid patients. At a time when _____ (2) _____ pressure of non-Covid patients continues to increase, the Municipal Corporation _____ (3) _____ hospitals to retain back-up health workers for 100 beds and move the remaining _____ (4) _____ to other units. This move is expected to bring relief to many patients suffering from other diseases _____ (5) _____ cancer, heart or kidney disease, which need urgent services.

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

- a. starts
- b. starting
- c. started
- d. start

22. Direction: 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)

With Covid-19 cases going down in Delhi many hospitals have _____ (1) _____ shifting their focus to other facilities for the treatment of non-Covid patients. At a time when _____ (2) _____ pressure of non-Covid patients continues to increase, the Municipal Corporation _____ (3) _____ hospitals to retain back-up health workers for 100 beds and move the remaining _____ (4) _____ to other units. This move is expected to bring relief to many patients suffering from other diseases _____ (5) _____ cancer, heart or kidney disease, which need urgent services.

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

- a. any
- b. a
- c. some
- d. the

23. Direction: 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)

With Covid-19 cases going down in Delhi many hospitals have _____ (1) _____ shifting their focus to other facilities for the treatment of non-Covid patients. At a time when _____ (2) _____ pressure of non-Covid patients continues to increase, the Municipal Corporation _____ (3) _____ hospitals to retain back-up health workers for 100 beds and move the remaining _____ (4) _____ to other units. This move is expected to bring relief to many patients suffering from other diseases _____ (5) _____ cancer, heart or kidney disease, which need urgent services.

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

- a. has advised
- b. has advise
- c. have advised
- d. advising

24. Direction: 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)

With Covid-19 cases going down in Delhi many hospitals have _____ (1) _____ shifting their focus to other facilities for the treatment of non-Covid patients. At a time when _____ (2) _____ pressure of non-Covid patients continues to increase, the Municipal Corporation _____ (3) _____ hospitals to retain back-up health workers for 100 beds and move the remaining _____ (4) _____ to other units. This move is expected to bring relief to many patients suffering from other diseases _____ (5) _____ cancer, heart or kidney disease, which need urgent services.

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

- a. staff
- b. guards
- c. members
- d. patients

25. Direction: 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)

With Covid-19 cases going down in Delhi many hospitals have _____
(1) _____ shifting their focus to other facilities for the treatment of
non-Covid patients. At a time when _____ (2) _____ pressure of
non-Covid patients continues to increase, the Municipal Corporation
_____ (3) _____ hospitals to retain back-up health workers for
100 beds and move the remaining _____ (4) _____ to other units.
This move is expected to bring relief to many patients suffering from
other diseases _____ (5) _____ cancer, heart or kidney disease,
which need urgent services.

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

- a. as well as
- b. similar to
- c. such as
- d. along with

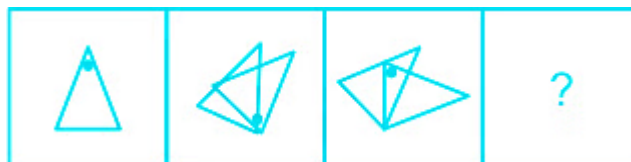


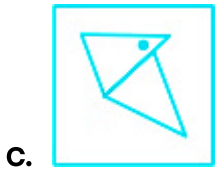
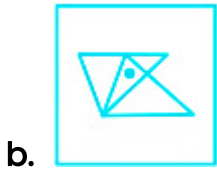
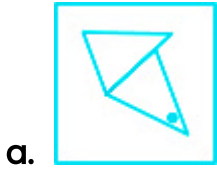
General Intelligence & Reasoning

26. The first semester scores of six students indicated that Raman immediate scored higher than Ritesh, but he is second lower to Harshita. If Ankur is the second-lowest scorer, then what could be the position of Raghav? (+1, -0.25)
- Between Raman and Ritesh
 - Just below Ritesh
 - Just above Harshita
 - Just above Raman

27. Select the correct sequence of mathematical signs to sequentially replace the letters A, B, C, D and E so as to balance the given equation. (+1, -0.25)
- $(38 \text{ A } 17) \text{ B } 9 \text{ C } 117 \text{ D } 13 \text{ E } 94 = 104$
- $+, \div, \times, +, -$
 - $\times, -, \div, +, -$
 - $-, \times, +, \div, -$
 - $\times, \div, +, -, -$

28. Select the figure that will replace the question mark (?) in the following figure series. (+1, -0.25)





29. Which number will replace the question mark (?) in the following number series? (+1, -0.25)

256, 123, 66, ?, 18, 6

- a. 32
- b. 29
- c. 33
- d. 27

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

Reaper : Farmer :: Anvil : ?

- a. Carpenter
 - b. Labourer
 - c. Watchmaker
 - d. Blacksmith
-

31. Seven persons are sitting along the sides of a heptagon table facing the centre. D is second to the right of A, and B is second to the right of F, who is to the immediate right of A. If G and C are sitting adjoining, C being second to the left of A, then what is the sitting position of E? (+1, -0.25)

- a. immediate left of F
 - b. immediate left of B
 - c. immediate right of A
 - d. immediate right of C
-

32. Two statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

All Machines are Tools.

No Tool is a Computer.

Conclusions:

I. No Machine is a Computer.

II. Some Computers are Tools.

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

33. If in a coding system, OPULENT is coded as 84 and LEARNER is coded as 114, then how will PHYSICS be coded in the same coding system? (+1, -0.25)

- a. 90
- b. 88
- c. 99
- d. 97

34. In a certain code language, if MATERIAL is written as QDXHVLDP, then how will ONTOLOGY be written in the same code language? (+1, -0.25)

- a. RRXRPRKC
- b. SRXSPSKC
- c. RMSRORJB
- d. RRSSOSGC

35. Which letter-cluster will replace the question mark (?) in the following series? (+1, -0.25)

HEA, JGC, LIE, ?

- a. NKG
- b. EBX
- c. DAW
- d. PLI

36. The Coordinator of an International Virtual Conference has planned six guest lectures on different areas—Cryptography, Fluid Dynamics, Big Data Analysis, Wavelet Theory, Differential Equations and Linear Algebra—to be organised only one on each day from Monday to Sunday. (+1, -0.25)

Wavelet Theory should be organised immediately after Differential Equations.

Big Data Analysis should be organised on Wednesday and should not be followed by Linear Algebra.

Fluid Dynamics should be organised on Friday and there should be a gap of two days between Cryptography and Linear Algebra.

One day there will be no lecture (Saturday is not that day), and just before that day Linear Algebra will be organised.

How many lectures are organised between Big Data Analysis and Wavelet Theory?

- a. Two
- b. One
- c. Four
- d. Three

37. Two statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements. (+1, -0.25)

Statements:

All Birds are Sparrows.

All Sparrows are Reptiles.

Conclusions:

I. Some Reptiles are Birds.

II. All Reptiles are Sparrows.

III. All Birds are Reptiles.

- a. Both conclusions I and II follow.
- b. Neither conclusion I, nor II, and III follow.
- c. Both conclusions I and III follow.
- d. Both conclusions II and III follow.

-
38. If in a coding system, SHELVES is coded as 1919515222219, and NOMINEE is coded as 1412131814225, then how will SEIZURE be coded in the same coding system? (+1, -0.25)

- a. 1922912195
- b. 19229262185
- c. 8518266185

d. 8221816922

39. Which of the given options is the most suitable to fill in the blank? (+1, -0.25)

Newspaper : Press :: Cloth : _____

- a. Tailor
 - b. Fibre
 - c. Mill
 - d. Shop
-

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



- a.
- b.
- c.



41. Identify the option figure that completes the pattern in the question figure. (+1, -0.25)



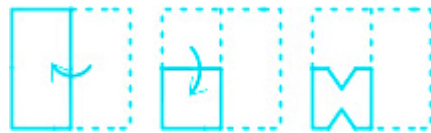
42. Which of the given options is the most suitable to fill in the blank? (+1, -0.25)





16 : 128 :: 4 : _____

- a. 14

- b. 8
- c. 40
- d. 26

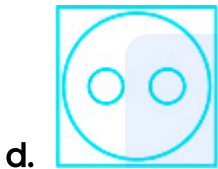
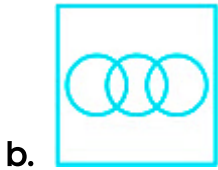
43. A paper is folded and cut as shown below. How will it appear when unfolded? (+1, -0.25)



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

44. Select the Venn diagram that best illustrates the relationship among the following classes: (+1, -0.25)

Students, Females, Teachers



45. In a certain code language, if EXTRNSIC is written as CIXESNRT, then how will LEFTWING be written in the same code language? (+1, -0.25)

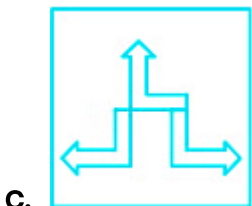
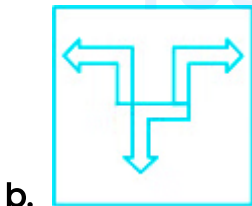
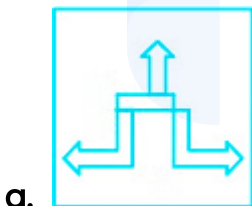
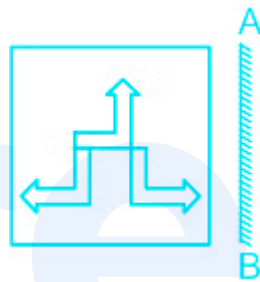
- a. ELGNTFIW
- b. GNIWTFEL
- c. TFELGNIW
- d. GNELIWTF

46. Which number will replace the question mark (?) in the following number series? (+1, -0.25)

16, 32, 8, 48, 6, 60, 5, ?

- a. 65
- b. 60
- c. 70
- d. 75

47. Select the correct mirror image of the given figure when the mirror is placed to the right side of the figure. (+1, -0.25)



a.

b.

c.

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d.

48. 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.

PHONETIC : FLWHQRKS :: SHEEPDOG : ?

- a. VKHHSGRJ
- b. JRVKGS HH
- c. JRGSHHKV
- d. VKRJHHSG

49. Which two digits can be interchanged so as to balance the given (+1, -0.25) equation?

$$186 \div 17 + 104 - 12 \times 3 = 16$$

- a. 8 and 3
- b. 4 and 7
- c. 2 and 7
- d. 6 and 4

50. Select the option in which the numbers are NOT related in the same way (+1, -0.25) as are the numbers of the following set.

(192, 140, 252)

a. (165, 140, 192)

b. (221, 192, 252)

c. (186, 134, 246)

d. (165, 117, 221)

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Numerical Aptitude

51. Three articles are bought at Rs.180 each. One of them is sold at a loss of 10%. If the other two articles are sold so as to gain 25% on the whole transaction, then what is the gain percentage on the two articles? **(+1, -0.25)**
- a. 30%
 - b. 42.5%
 - c. 37.5%
 - d. 45%
-
52. The mean of 100 items is 47. It was discovered that three items which should have been 60,70, 80 were wrongly read as 40, 20, 50, respectively. The correct mean is: **(+1, -0.25)**
- a. 48
 - b. 50
 - c. 51
 - d. 47
-
53. A hall is 18 m long and 12 m broad. If the sum of the areas of the floor and the ceiling is equal to the sum of the areas of the four walls, the volume (in m^3) of the hall is: **(+1, -0.25)**
- a. 1555.2
 - b. 1376.4

c. 1876.2

d. 1175.5

54. The value of $5\frac{5}{29} - \left[\frac{15}{4} \div \left\{\frac{3}{4} \times \left(\frac{3}{2} - \frac{1}{5} - \frac{1}{3}\right)\right\}\right]$ is: (+1, -0.25)

a. 1

b. 10

c. 0

d. 5

55. Two numbers are, respectively, 17% and 50% more than a third number. (+1, -0.25)
The ratio of the two numbers is:

a. 59 : 39

b. 39 : 59

c. 50 : 39

d. 39 : 50

56. What is the difference (in Rs.) between the compound interest, when (+1, -0.25)
interest is compounded 6-monthly, and the simple interest on a sum of
Rs.10,000 for $1\frac{1}{2}$ years at 10% p.a.?

a. 91.5

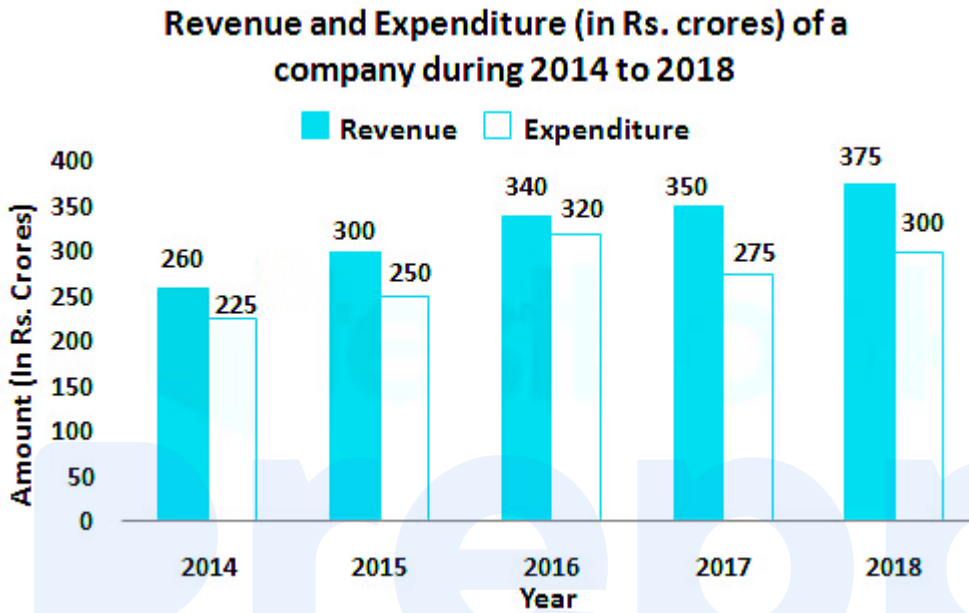
b. 102.25

c. 87

d. 76.25

57. Study the following graph and answer the question that follows.

(+1, -0.25)



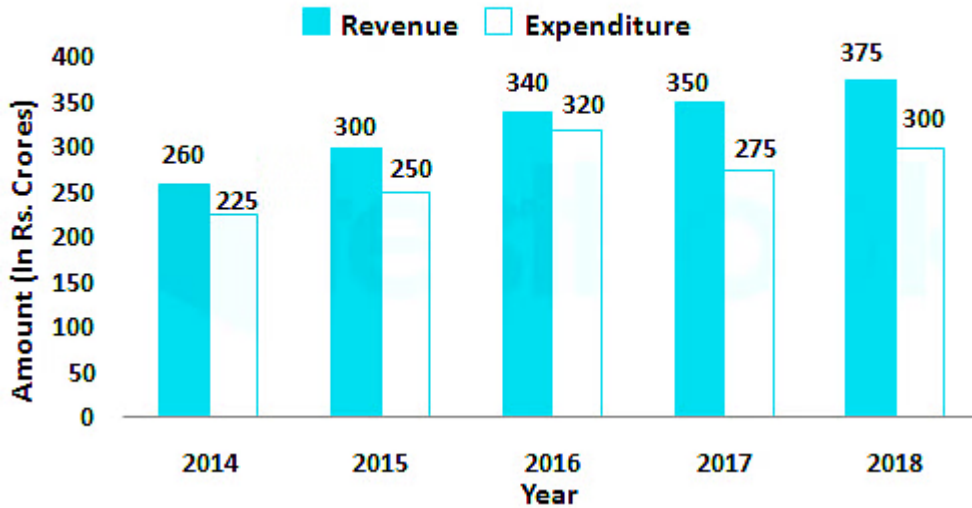
What is ratio of the total revenue of the company in 2016 and 2018 to that of the total expenditure in 2015 and 2017?

- a. 143 : 105
- b. 115 : 114
- c. 105 : 143
- d. 130 : 103

58. Study the following graph and answer the question that follows.

(+1, -0.25)

Revenue and Expenditure (in Rs. crores) of a company during 2014 to 2018



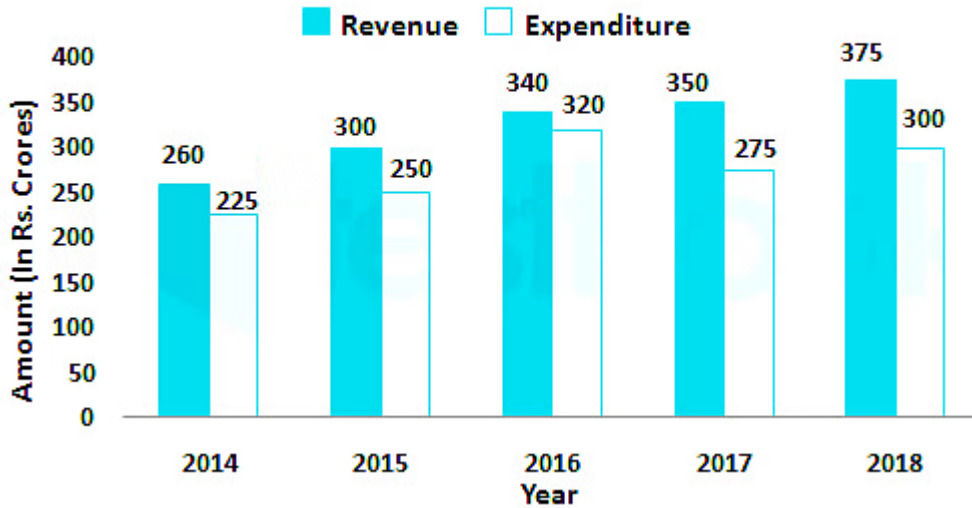
The expenditure of the company in 2016 is what percentage more than the average revenue (per year) in 2014, 2015 and 2018 (correct to the nearest integer)?

- a. 5%
- b. 6%
- c. 4%
- d. 3%

59. Study the following graph and answer the question that follows.

(+1, -0.25)

Revenue and Expenditure (in Rs. crores) of a company during 2014 to 2018



In which year is the percentage increase in the revenue, as compared to that in the preceding year, between 1% and 3%?

- a. 2018
- b. 2016
- c. 2017
- d. 2015

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60. A person invested a sum of Rs.6,500 at $x\%$ per annum at simple interest and a sum of Rs.7,500 at $(x - 2)\%$ per annum at simple interest. If the total interest earned on both the investments for 3 years is Rs.3,750, then the rate of interest on the first investment is: (+1, -0.25)
- a. 10%
 - b. 12%
 - c. 8%

d. 14%

61. A sum (in Rs.) is distributed between A, B and C in the ratio 5 : 6 : 7. If B gives Rs.400 from his share to C, the ratio of the shares of A, B and C becomes 2 : 3 : 4. What is the sum of the shares (in Rs.) of A and c, in the beginning? (+1, -0.25)

a. 14,000

b. 7,200

c. 11,200

d. 8,400

62. The cost price of 30 articles is the same as the selling price of x articles. If the profit is 25%, then the value of x is: (+1, -0.25)

a. 30

b. 18

c. 25

d. 24

63. A fruit seller has a sale of Rs.10,435, Rs.9,927, Rs.10,855, Rs.10,230 and Rs.9,562 for five consecutive months. How much sale (in Rs.) must he have in the sixth month so that he gets an average sale of Rs.10,500? (+1, -0.25)

a. 8,231

b. 11,991

c. 9,231

d. 8,991

64. The curved surface area of a right circular cone is $65\pi \text{ cm}^2$ and the radius of its base is 5 cm. What is half of the volume of the cone, in cm^3 ? (+1, -0.25)

a. 50π

b. 45π

c. 100π

d. 180π

65. A single discount equivalent to three simple discounts of 10%, 12% and 15% is: (+1, -0.25)

a. 32.68%

b. 34.17%

c. 35.36%

d. 37%

66. A, B and C can do a piece of work in 10, 15 and 30 days, respectively. If B and C both assist A on every third day, then in how many days can the work be completed? (+1, -0.25)

a. $7\frac{1}{2}$

b. 5

c. $8\frac{1}{2}$

d. 8

67. Let x be the least number divisible by 8, 12, 30, 36 and 45 and x is also a perfect square. What is the value of x ? (+1, -0.25)

a. 4900

b. 2500

c. 3600

d. 4225

68. A person crosses a 900-metre long street in 6 minutes. The speed of the person in km/h is: (+1, -0.25)

a. 10

b. 15

c. 12

d. 9

69. A train can travel 40% faster than a car. Both the train and the car start from point A at the same time and reach point B, which is 70 km away from point A, at the same time. On the way, however, the train lost about 15 minutes while stopping at stations. The speed of the car in km/h is: (+1, -0.25)

a. 120

b. 80

c. 100

d. 90

70. If A and B can do a piece of work in 20 days, and A alone can do the same work in 30 days, then in how many days can B alone complete the same work? (+1, -0.25)

a. 75

b. 40

c. 50

d. 60

71. What is the simplified value of $\left\{ \left(1 - \frac{2}{15} \right) + \frac{2}{5} \right\} \div \frac{14}{15} + \left(\frac{2}{3} \text{ of } \frac{6}{7} \div \frac{4}{9} - \frac{1}{6} \times 1\frac{5}{7} \right)$? (+1, -0.25)

a. $\frac{11}{15}$

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

c. $\frac{33}{14}$

d. 2

72. A field is in the form of a circle. The cost of fencing around it at Rs.11 per metre is Rs.2,420. What is the area (in m^2) of the field? (Take $\pi = \frac{22}{7}$) (+1, -0.25)

a. 4500

b. 2700

c. 3850

d. 4250

73. A girl spend 76% of her income. If her income increase by 18% and her expenditure increases by 25%, then what is the percentage increase or decrease in her savings (correct to one decimal place)? (+1, -0.25)

- a. 4.2%, decrease
 - b. 5.7%, increase
 - c. 8.4%, increase
 - d. 6.9%, decrease
-

74. The incomes of A and B are in the ratio 3 : 4, and their expenditure are in the ratio 9 : 5. If the income of A is equal to three times the expenditure of B, then what is the ratio of the savings of A and B? (+1, -0.25)

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

75. The average weight of 6 persons increases by 2.5 kg when a new person comes in place of one of them weighing 55 kg. What might be the weight (in kg) of the new person? (+1, -0.25)

- a. 60
- b. 62.5

c. 70

d. 75.5

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Your Personal Exams Guide

General Awareness

76. In which year was 'Project Elephant' launched by the Government of India as a Centrally Sponsored Scheme? (+1, -0.25)
- a. 1997
 - b. 1988
 - c. 1984
 - d. 1992
-
77. Of the following abbreviations, which one is primarily an umbrella organisation for operating retail payments and settlement systems in India? (+1, -0.25)
- a. SIDBI
 - b. NPCI
 - c. NABARD
 - d. IRDAI
-
78. Unsaturated carbon compounds burn with a: (+1, -0.25)
- a. yellow sooty flame
 - b. orange sooty flame
 - c. white sooty flame
 - d. red sooty flame

79. Of the following sites of Harappan Civilization, which one is NOT located in Pakistan? (+1, -0.25)

- a. Chanhudaro
 - b. Shortughai
 - c. Balakot
 - d. Kot Diji
-

80. Which of the following is NOT a property of graphite? (+1, -0.25)

- a. It is a conductor of electricity.
 - b. It has a lower density than diamond.
 - c. It is a conductor of heat.
 - d. It has low melting point.
-

81. The 'Amrita Devi Bishnoi National Award' is given for: (+1, -0.25)

- a. Wildlife protection
 - b. Energy protection
 - c. Environment protection
 - d. Biodiversity protection
-

82. Which of the following is a dwarf planet of our solar system? (+1, -0.25)

- a. Callisto
 - b. Ganymede
 - c. Europa
 - d. Makemake
-

83. In which of the following states is the festival called 'Yaoshang' traditionally celebrated? (+1, -0.25)

- a. Sikkim
 - b. Jharkhand
 - c. Chhattisgarh
 - d. Manipur
-

84. Which of the following minerals has kieserite as its ore? (+1, -0.25)

- a. Magnesium
 - b. Potassium
 - c. Silver
 - d. Iron
-

85. In which year was the South Asian Association for Regional Cooperation (SAARC) established? (+1, -0.25)

- a. 1987

- b. 1980
 - c. 1983
 - d. 1985
-

86. Of the following battles fought by Akbar, which one was the latest as compared to the rest of the battles? (+1, -0.25)

- a. Battle of Thanesar
 - b. Battle of Haldighati
 - c. Battle of Tukaroi
 - d. Second Battle of Panipat
-

87. The Union Sports Ministry has decided to set up Khelo India State Centres of Excellence (KISCE) in eight states in the first leg of the Khelo India Scheme. Which of the following is NOT one of these eight states? (+1, -0.25)

- a. Odisha
 - b. Nagaland
 - c. Andhra Pradesh
 - d. Karnataka
-

88. In which year was the first meeting of National Integration Council held? (+1, -0.25)

- a. 1962
- b. 1951

c. 1965

d. 1955

89. On which of the following rivers is Pakistan constructing a dam and named 'Diemer Basha' dam? (+1, -0.25)

a. Jhelum

b. Chenab

c. Indus

d. Sutlej

90. Which of the following wetlands is located in Kerala? (+1, -0.25)

a. Sasthamkotta Lake

b. Sandi Bird Sanctuary

c. Nandur Madhameshwar

d. Hokera Wetland

91. Who among the following is the author of the book titled 'Speaking Truth to Power : My Alternative View'? (+1, -0.25)

a. Mani Shankar Aiyar

b. Subramanian Swamy

c. P Chidambaram

d. Arun Shourie

92. With which of the following games is the Duckworth-Lewis-Stem method associated? (+1, -0.25)

a. Cricket

b. Hockey

c. Football

d. Polo

93. As on September 2021, who is the CEO of NITI Aayog? (+1, -0.25)

a. Shaktikanta Das

b. Dr. Rajiv Kumar

c. Amitabh Kant

d. Urjit Patel

94. _____ is a type of fraud where a small electronic device is used to steal debit/credit card information during an authorised banking transaction. (+1, -0.25)

a. Skimming

b. Phishing

c. Smishing

d. Vishing

95. Who was the Pro-term speaker of the 16th Lok Sabha? (+1, -0.25)

- a. M Thambidurai
- b. Kamal Nath
- c. Meira Kumar
- d. Manohar Parrikar

96. With which of the following type of fuels is the device named 'tokamak' associated? (+1, -0.25)

- a. Geothermal
- b. Hydel
- c. Atomic
- d. Tidal

97. Ken Shimura, the renowned comedian who died in March 2020, was a national of: (+1, -0.25)

- a. China
- b. Japan
- c. South Korea
- d. Indonesia

98. To which of the following incarnations of Vishnu is Dhanuyatra of Odisha's Bargah district dedicated? (+1, -0.25)

- a. Lord Krishna
 - b. Lord Rama
 - c. Lord Varaha
 - d. Lord Vamana
-

99. Priyadarshini Govind, who was conferred the 'Nritya Kalanidhi' title by The Music Academy in 2019, is a well-known _____ dancer. (+1, -0.25)

- a. Kuchipudi
 - b. Kathakali
 - c. Kathak
 - d. Bharatnatyam
-

100. Who among the following was the founder of Prarthana Samaj? (+1, -0.25)

- a. Jyotiba Phue
- b. MG Ranade
- c. Atmaram Pandurang
- d. RC Bhandarkar

Answers

1. Answer: a

Explanation:

The correct answer is- ' **Commonplace** '

★ Key Points

- The most appropriate antonym of the given word ' Facile ' is ' Complete '.
- **Unusual** : different from others of the same type in a way that is surprising, interesting, or attractive (एक ही प्रकार के अन्य लोगों से एक तरह से अलग जो आश्चर्यजनक, दिलचस्प या आकर्षक हो)
 - *Example: I was actually on time, which is **unusual** for me.*
- **Commonplace** : happening often or often seen or experienced and so not considered to be special (अक्सर या अक्सर देखा या अनुभव किया जाता है और इसलिए इसे विशेष नहीं माना जाता है)
 - *Example: Electric cars are increasingly **commonplace**.*
- Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

★ Additional Information

Let's look at the meaning of other words:

- **Questionable**:not certain, or wrong in some way (निश्चित नहीं, या किसी तरह से गलत)
- **Fantastic**:extremely good (extremely good)
- **Rare**:not common or frequent; very unusual (आम या लगातार नहीं; अत्यंत असामान्य)

2. Answer: a

Explanation:

The correct answer is- ' **Clear** '

★ Key Points

- The most appropriate synonym of the given word 'Facile' is 'Complete'.
- **Transparent**: If a substance or object is transparent, you can see through it very clearly (यदि कोई पदार्थ या वस्तु पारदर्शी है, तो आप उसके माध्यम से बहुत स्पष्ट रूप से देख सकते हैं)
 - *Example: Grow the bulbs in a **transparent** plastic box, so the children can see the roots growing.*
- **Clear**: easy to understand, hear, read, or see (समझने, सुनने, पढ़ने या देखने में आसान)
 - *Example: Can we make the sound any **clearer** ?*
- Therefore, as per the points mentioned above, we find that the correct answer is Option 1.

★ Additional Information

Let's look at the meaning of other words:

- **Opaque**: preventing light from travelling through, and therefore not transparent or translucent (प्रकाश को यात्रा करने से रोकना, और इसलिए पारदर्शी या पारभासी नहीं)
- **Pretty**: quite, but not extremely (काफी, लेकिन बेहद नहीं)
- **Shiny**: A shiny surface is bright because it reflects light (एक चमकदार सतह चमकदार होती है क्योंकि यह प्रकाश को परावर्तित करती है)

3. Answer: b

Explanation:

The correct answer is 'has been immunised'.

★ Key Points

- The error lies in part '**has been immunised**' of the sentence.
- As the subject 'children' is a plural noun, we need a plural verb 'have.'
- Correct sentence: *According to a recent survey, around 60% of children under the age of 5 years **have been immunised**.*

★ Additional Information

- Subjects and verbs must AGREE with one another in number (singular or plural).
- Thus, if a subject is singular, its verb must also be singular.
 - Example : *The dog chases the cat.*
- If a subject is plural, its verb must also be plural.
 - Example : *The dogs chase the cat.*

★ Hinglish

- त्रुटि वाक्य के भाग 'has been immunised' में है।
- चूंकि subject 'children' एक plural noun है, हमें plural verb 'have' की आवश्यकता है।

4. Answer: a

Explanation:

The correct answer is 'hasn't.'

★ Key Points

- Rules for question tag:
 - The sentence and the question tag must be in the same tense.
 - For the negative question tag, use the contracted form of 'helping verb' and 'not.'
 - If the sentence is positive, the question tag must be negative and vice-versa.
 - Always use pronouns in the question tag.
 - Example: *didn't, haven't, doesn't*
- Correct sentence: *The Health Minister has been discharged from the hospital, hasn't he?*

★ Additional Information

- A tag question is a special construction in English.
- It is a statement followed by a mini-question.
- We use tag questions to ask for confirmation.
- They mean something like: *"Is that right?"* or *"Do you agree?"*

★ Hinglish

- प्रश्न टैग के नियम:
 - वाक्य और प्रश्न टैग एक ही काल में होने चाहिए।
 - नकारात्मक प्रश्न टैग के लिए, 'helping verb' और 'not' के अनुबंधित रूप का उपयोग करें।
 - यदि वाक्य सकारात्मक है, तो प्रश्न टैग नकारात्मक और इसके विपरीत होना चाहिए।
 - प्रश्न टैग में हमेशा pronouns का प्रयोग करें।
 - Example: *didn't, haven't, doesn't*

5. Answer: a

Explanation:

The correct answer is 'inspiration'

★ Key Points

- Let us see the meanings of the given words:
 - Inspiration : someone or something that gives you ideas for doing something (कोई व्यक्ति या कुछ जो आपको कुछ करने के लिए विचार देता है)
 - **Ambition** : a strong wish to achieve something (कुछ हासिल करने की प्रबल इच्छा)
 - **Expectation** : the feeling that good things are going to happen in the future. (यह भावना कि भविष्य में अच्छी चीजें होने वाली हैं।)
 - **Invitation** : the act of inviting someone to go to an event (किसी कार्यक्रम में जाने के लिए किसी को आमंत्रित करने की क्रिया)
- From the meanings of the words, we can say that 'inspiration' is the most appropriate answer.
- Therefore, the correct answer is 'inspiration.'

The correct sentence: *I receive a lot of **inspiration** from my family members, who are very encouraging.*

6. Answer: b

Explanation:

The correct answer is ' **no inform** . '

★ Key Points

- The error lies in part ' **no inform** 'of the sentence.
- In this context, we need a noun form of the word '**inform**.'
- Therefore, we need to replace '**inform**' with '**information**.'
- Correct sentence: *I have **no information** about today's meeting with the managing director.*

★ Additional Information

- Subjects and verbs must AGREE with one another in number (singular or plural).
- Thus, if a subject is singular, its verb must also be singular.
 - Example : *The dog chases the cat.*
- If a subject is plural, its verb must also be plural.
 - Example : *The dogs chase the cat.*

★ Hinglish

- त्रुटि वाक्य के भाग 'no inform' में है।
- इस संदर्भ में, हमें '**Inform**' शब्द के संज्ञा रूप की आवश्यकता है।
- इसलिए, हमें '**Inform**' को '**Information**' से बदलने की आवश्यकता है।

7. Answer: d

Explanation:

The correct answer is- ' **Suspention** '

★ Key Points

- The correct spelling of the word is **Suspension**.

- Meaning: the act of stopping something happening, operating, etc. for a period of time (कुछ समय के लिए होने, संचालन आदि को रोकने की क्रिया)
- Thus, the word **Suspention** has incorrect spelling and its correct spelling is **Suspension**.

★ Additional Information

- **Identification**: the act of recognizing and naming someone or something (किसी को या किसी चीज़ को पहचानने और नाम देने की क्रिया)
- **Composition**: a piece of music that someone has written (संगीत का एक टुकड़ा जो किसी ने लिखा है)
- **Application** : an official request for something, usually in writing (किसी चीज़ के लिए आधिकारिक अनुरोध, आमतौर पर लिखित रूप में)

8. Answer: b

Explanation:

The correct answer is '**incompetent**'

★ Key Points

- Let us see the meanings of the given words:
 - **Incompetent** : not having the ability to do something as it should be done (कुछ करने की क्षमता न होना जैसा कि किया जाना चाहिए)
 - **Influential** : having a lot of influence on someone or something (किसी पर या किसी चीज़ पर बहुत अधिक प्रभाव पड़ना)
 - **Invisible** : impossible to see (देखना असंभव है)
 - **Inappropriate** : unsuitable (अनुपयुक्त)
- From the meanings of the words, we can say that '**incompetent**' is the most appropriate answer.
- Therefore, the correct answer is '**incompetent**'.

The correct sentence: Pravesh's teacher makes him feel as if he is **incompetent**.

9. Answer: b

Explanation:

The correct answer is- '**Infallible**'

★ Key Points

- Let's look at the meaning of the marked option:
- **Infallible**: never wrong, failing, or making a mistake (कभी गलत, असफल, या गलती नहीं करना)
 - *Example: Even the experts are not **infallible**.*
- Let's look at the meaning of the other given options:
- **Untrustworthy**: not able to be trusted (भरोसा नहीं किया जा सकता)
- **Ineligible**: not allowed to do or have something, according to particular rules (विशेष नियमों के अनुसार कुछ करने या करने की अनुमति नहीं है)
- **Incapable**: unable to do something (कुछ करने में असमर्थ)

Hence, from the given meanings, we find that **Infallible** is the correct one-word substitute.

10. Answer: b

Explanation:

The correct answer is '**could not completed**'.

★ Key Points

- The error lies in part '**could not completed**' of the sentence.
- The base form of Verb (V1) is used after the modal verb '**could**.'
 - क्रिया (V1) के मूल रूप का प्रयोग modal verb '**could**' के बाद किया जाता है।
- Structure: **could + V1**
 - *Example: I **could** go there.*

- Correct sentence: *Though they worked day and night to build the highway before the deadline they **could not complete** it.*

★ Additional Information

- We use modals to show if we believe something is certain, possible or impossible.
- We also use them to do things like talk about ability, ask permission, and make requests and offers.
 - Example : *That can't be Peter's coat. It's too small.*

11. Answer: c

Explanation:

The correct answer is- 'I didn't pay.'

★ Key Points

- We can use **why** in indirect questions:
- **Structure:** **why + Subject + verb**
- **Example:** *I wonder why he told nobody he was getting married.*
- Therefore, the use of 'didn't you pay' should be replaced by 'I didn't pay' to make it grammatically correct.
- Correct sentence: *Anurag asked me why I **didn't pay** the driver.*

★ Additional Information

- Countable nouns , as the term suggests, refer to things that can be counted.
- They have singular and plural forms.
 - Example : *table, tables; month, months; pen, pens.*
- Uncountable nouns cannot be counted.
- They have a singular form and do not have a plural form.
 - Example : *dirt, rice, information, furniture, and hair.*

★ Hinglish

- हम Indirect questions में क्यों का उपयोग कर सकते हैं:
- Structure: why + Subject + verb
- Example: *I wonder why he told nobody he was getting married.*
- इसलिए वाक्य में 'didn't you pay ' के प्रयोग को 'I didn't pay ' से बदल देना चाहिए ताकि वह व्याकरण की दृष्टि से सही हो।

12. Answer: d

Explanation:

The correct answer is- 'Pay a casual visit'

★ Key Points

- The most appropriate meaning of the given idiom 'Drop in' is 'Pay a casual visit'
- Let's look at the meaning and example of the given phrasal verb:
 - Drop in - "to pay an unexpected or casual visit —often used with on" (एक अप्रत्याशित या आकस्मिक यात्रा का भुगतान करने के लिए—अक्सर on . के साथ प्रयोग किया जाता है)
 - E.g. *I hate to **drop in** on people when they aren't expecting me.*
- Thus from the explanation given above, we find that the 4th option is the correct choice.

13. Answer: c

Explanation:

The correct answer is- 'Identifiable'

★ Key Points

- The correct spelling of the word is **Identifiable** .
- Meaning: able to be recognized (पहचाने जाने योग्य)

- Thus, the word Identifiable has incorrect spelling and its correct spelling is Identifiable.

★ Additional Information

- **Justifiable:** If something is justifiable, there is a good reason for it (अगर कुछ उचित है, तो उसके लिए एक अच्छा कारण है)
- **Eligible:** having the necessary qualities or satisfying the necessary conditions (आवश्यक गुण होना या आवश्यक शर्तों को पूरा करना)
- **Legible :** Legible writing or print can be read easily (सुपाठ्य लेखन या प्रिंट आसानी से पढ़ा जा सकता है)

14. Answer: c

Explanation:

The correct answer is- 'Dull '

★ Key Points

- The most appropriate antonym of the given word ' Facile ' is ' Complete ' .
- **Glittering:** exciting or admired by many people, usually relating to rich and famous people (कई लोगों द्वारा रोमांचक या प्रशंसित, आमतौर पर अमीर और प्रसिद्ध लोगों से संबंधित)
 - *Example: The Cannes Film Festival is one of the most **glittering** occasions in the movie world.*
- **Dull :** not interesting or exciting in any way (किसी भी तरह से दिलचस्प या रोमांचक नहीं)
 - *Example: She wrote **dull**, respectable articles for the local newspaper.*
- Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

★ Additional Information

Let's look at the meaning of other words:

- **Shingly:** covered in small, round stones (छोटे, गोल पत्थरों से ढका हुआ)
- **Attractive:** very pleasing in appearance or sound (extremely good) (दिखने में या ध्वनि में बहुत मनभावन (बेहद अच्छा))

- **Shiny:** A shiny surface is bright because it reflects light (एक चमकदार सतह चमकदार होती है क्योंकि यह प्रकाश को परावर्तित करती है)

15. Answer: d

Explanation:

The correct answer is- 'The time at which an important change starts'

★ Key Points

- The most appropriate meaning of the given idiom 'A turning point' is 'The time at which an important change starts'
- Let's look at the meaning and example of the given phrasal verb:
 - A turning point - "the time at which a situation starts to change in an important way" (जिस समय एक महत्वपूर्ण तरीके से स्थिति बदलने लगती है)
 - E.g. The organization called the new regulations a **turning point** in the campaign against smoking.
- Thus from the explanation given above, we find that the 4th option is the correct choice.

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16. Answer: d

Explanation:

The correct answer is- 'are taking.'

★ Key Points

- The error lies in **Part (are been taking)** of the sentence.
- We need to use **Present Continuous Tense** in this sentence.
- The **present continuous tense** can be used to describe when an action happened or may happen.

- It can also be used to describe both events that are happening in the present – right now, while you are talking about something, or in the future – something that may or will happen later on.
 - **Example:** *She is eating dinner right now and cannot answer the phone.*
- Therefore, the use of '**are been taking**' should be replaced by 'are taking' to make it grammatically correct.
- Correct sentence: *These days my parents **are taking** great care of my health and want me to eat nuts and seeds, which are rich in vitamins and miners.*

★ Additional Information

- Countable nouns, as the term suggests, refer to things that can be counted.
- They have singular and plural forms.
 - Example: *table, tables; month, months; pen, pens.*
- Uncountable nouns cannot be counted.
- They have a singular form and do not have a plural form.
 - Example: *dirt, rice, information, furniture, and hair.*

★ Hinglish

- त्रुटि वाक्य के Part (are been taking) में है।
- हमें इस वाक्य में Present Continuous Tense का उपयोग करने की आवश्यकता है।
- Present Continuous Tense का उपयोग यह वर्णन करने के लिए किया जा सकता है कि कोई क्रिया कब हुई या हो सकती है।
- इसका उपयोग दोनों घटनाओं का वर्णन करने के लिए भी किया जा सकता है जो वर्तमान में हो रही हैं – अभी, जब आप किसी चीज़ के बारे में बात कर रहे हैं, या भविष्य में – ऐसा कुछ जो बाद में हो सकता है या होगा।
 - Example: *She is eating dinner right now and cannot answer the phone.*
- इसलिए वाक्य में 'are been taking' के प्रयोग को 'are taking' से बदल देना चाहिए ताकि वह व्याकरण की दृष्टि से सही हो।

17. Answer: d

Explanation:

The correct answer is '**while samosas are.**'

★ Key Points

- The error lies in **Part (even samosas is)** of the sentence.
- **Either** is used when referring to a choice between two options.
 - **Example** : *Either one deserves to win.*
- We use **but** as an alternative to except (for).
 - **Example** : *I swear by Almighty God, to tell the truth, the whole truth and nothing **but** the truth.*
- We can put clauses with **while** before or after the main clause.
- We can use **while** to talk about two longer events or activities happening at the same time.
 - **Example** : *Lucy came into the room **while** he was waiting.*
- Also, **samosas** is a plural noun, therefore we need a plural verb with it.
- Therefore, the use of 'even samosas is ' should be replaced by 'while samosas are' to make it grammatically correct.
- Correct sentence : *Cakes are Jaya's favourite snack, **while samosas are** Aparna's preferred choice.*

★ Additional Information

- Subject pronouns are pronouns that replace the subject in the sentence.
- The subject pronouns are we, you, he, she, it, and they.
- Object pronouns do not replace the subject.
- Instead, an object pronoun would replace the object in the sentence.
- The object is the part of the sentence that is being done to, from or with the action.
- The object pronouns are me, you, him, her, it, us, and them .

★ Hinglish

- त्रुटि वाक्य के Part (even samosas is) में है।
- दो विकल्पों के बीच किसी विकल्प का जिक्र करते समय **Either** का उपयोग किया जाता है।
 - Example : *Either one deserves to win.*
- हम **but** उपयोग करते हैं, सिवाय (के लिए) के विकल्प के रूप में।
 - Example : *I swear by Almighty God, to tell the truth, the whole truth and nothing **but** the truth.*
- हम मुख्य क्लॉज के पहले या बाद में क्लॉज को **while** के साथ रख सकते हैं।

- हम एक ही समय में होने वाली दो लंबी घटनाओं या गतिविधियों के बारे में बात करने के लिए **while** का उपयोग कर सकते हैं।
 - Example : *Lucy came into the room while he was waiting.*
- साथ ही, **samosas** एक बहुवचन संज्ञा है, इसलिए हमें इसके साथ एक बहुवचन क्रिया की आवश्यकता है।
- इसलिए वाक्य में 'even samosas is' के प्रयोग को 'while samosas are' से बदल देना चाहिए ताकि वह व्याकरण की दृष्टि से सही हो।

18. Answer: a

Explanation:

The correct answer is- ' **Cardiologist** '

★ Key Points

- Let's look at the meaning of the marked option:
- **Cardiologist**: a doctor who specializes in treating diseases of the heart (एक डॉक्टर जो दिल की बीमारियों के इलाज में माहिर है)
 - Example: *In six programmes, eligibility to the exercise component of the programme was decided by a **cardiologist** or a physiotherapist.*
- Let's look at the meaning of the other given options:
- **Pediatrician**: a doctor who has special training in medical care for children (एक डॉक्टर जिसके पास बच्चों की चिकित्सा देखभाल में विशेष प्रशिक्षण है)
- **Neurologist**: a doctor who studies and treats diseases of the nerves (एक डॉक्टर जो नसों के रोगों का अध्ययन और उपचार करता है)
- **Pathologist**: an expert in the study of diseases, especially someone who examines a dead person's body and cuts it open to discover how they died (रोगों के अध्ययन में एक विशेषज्ञ, विशेष रूप से कोई व्यक्ति जो किसी मृत व्यक्ति के शरीर की जांच करता है और उसे यह पता लगाने के लिए खोलता है कि उनकी मृत्यु कैसे हुई)

Hence, from the given meanings, we find that **Cardiologist** is the correct one-word substitute.

19. Answer: a

Explanation:

The correct answer is 'with.'

★ Key Points

- **With** is used to say that people or things are in a place together or are doing something together.
 - **Example** : *I was **with** Sylvia at the time.*
- **Behind** is used to say in the place where someone or something was before.
 - **Example** : *I was annoyed to discover that I'd left my bag **behind** .*
- **Between** is used to say in or into the space that separates two places, people, or objects.
 - **Example** : *The town lies halfway **between** Rome and Florence.*
- We can use **to** as a preposition to indicate a destination or direction.
 - **Example** : *We're going **to** Liverpool next week.*
- Correct sentence : *The office superintendent asked me to leave my job application **with** him.*

★ Additional Information

- A preposition is a word or group of words used before a noun, pronoun, or noun phrase to show direction, time, place, location, spatial relationships, or to introduce an object.
- Some examples of prepositions are words like "*in,*" "*at,*" "*on,*" "*of,*" and "*to.*"
 - **Example** : *I live **in** Raipur.*

★ Hinglish

- **With** का उपयोग यह कहने के लिए किया जाता है कि लोग या चीजें एक साथ हैं या एक साथ कुछ कर रहे हैं।
 - **Example** : *I was **with** Sylvia at the time.*
- **Behind** उस स्थान पर कहने के लिए प्रयोग किया जाता है जहां पहले कोई या कुछ था।
 - **Example** : *I was annoyed to discover that I'd left my bag **behind** .*
- बीच में या अंतरिक्ष में जो दो स्थानों, लोगों या वस्तुओं को अलग करता है, कहने के लिए **Between** प्रयोग किया जाता है।
 - **Example** : *The town lies halfway **between** Rome and Florence.*
- हम गंतव्य या दिशा को इंगित करने के लिए preposition **to** उपयोग कर सकते हैं।

- Example : *We're going to Liverpool next week.*

20. Answer: c

Explanation:

The correct answer is- 'Contamination '

★ Key Points

- The most appropriate synonym of the given word ' Facile ' is ' Complete '.
- **Pollution:** damage caused to water, air, etc. by harmful substances or waste (हानिकारक पदार्थों या कचरे से पानी, हवा आदि को होने वाली क्षति)
 - Example: *The manifesto includes tough measures to tackle road congestion and environmental pollution.*
- Contamination : to make something less pure or make it poisonous (किसी चीज को कम शुद्ध बनाना या उसे जहरीला बनाना)
 - Example: Much of the coast has been contaminated by nuclear waste.
- Therefore, as per the points mentioned above, we find that the correct answer is Option 3.

★ Additional Information

Let's look at the meaning of other words:

- **Creation:** the act of creating something, or the thing that is created (कुछ बनाने की क्रिया, या वह चीज जो बनाई गई हो)
- **Expansion:** to increase in size, number, or importance, or to make something increase in this way (आकार, संख्या या महत्व में वृद्धि करना, या इस तरह से कुछ बढ़ाना)
- **Aggravation:** to make a bad situation worse (खराब स्थिति को और खराब करने के लिए)

21. Answer: c

Explanation:

The correct answer is 'started.'

★ Key Points

- The use of the **have** at the beginning of the sentence denotes that the V3 form of the verb should be used.
 - Example : *We have gone there on Monday.*
- **Started** is the V2 and V3 forms of the verb succeed.
- Start and Starts are the V1 forms of the verb.
- **Starting** is in the Continuous tense.
- Correct phrase: *hospitals have **started** shifting their focus to other facilities.....*

★ Additional Information

- A modal verb is a type of verb that is used to indicate modality – that is: likelihood, ability, permission, request, capacity, suggestions, order, obligation, or advice.
- In English, the modal verbs commonly used are can, could, may, might, shall, should, will, would, and must.
 - Example: *My keys must be in the car.*

★ Hinglish

- वाक्य के आरंभ में modal verb will का प्रयोग यह दर्शाता है कि क्रिया के V1 रूप का प्रयोग किया जाना चाहिए।
 - Example : *We will go there on Monday.*
- Started, क्रिया का V2 और V3 रूप है।
- Start and Starts, V1 form of the verb है।

22. Answer: d

Explanation:

The correct answer is 'the.'

★ Key Points

- **Any, a and some** can be used to denote one of or each of an unparticular type of person or thing when it is not important.
 - **Example** : *Any food would be better than nothing at all.*
 - **Example** : *I heard a child crying.*
 - **Example** : *Here's some news you might be interested in.*
- **The** is used before nouns to refer to particular things or people that have already been talked about or are already known or that are in a situation where it is clear what is happening.
 - **Example** : *Please would you pass the salt.*
- Correct phrase: *At a time when the pressure of non-Covid patients continues to increase,.....*

★ Additional Information

- A modal verb is a type of verb that is used to indicate modality – that is: likelihood, ability, permission, request, capacity, suggestions, order, obligation, or advice.
- In English, the modal verbs commonly used are can, could, may, might, shall, should, will, would, and must.
 - Example: *My keys must be in the car.*

★ Hinglish

- Any, a and some का उपयोग किसी एक या प्रत्येक अविशिष्ट प्रकार के व्यक्ति या चीज़ को निरूपित करने के लिए किया जा सकता है जब यह महत्वपूर्ण नहीं है।
 - Example : *Any food would be better than nothing at all.*
 - Example : *I heard a child crying.*
 - Example : *Here's some news you might be interested in.*
- संज्ञा से पहले **the** का उपयोग विशेष चीज़ों या लोगों को संदर्भित करने के लिए किया जाता है जिनके बारे में पहले से ही बात की जा चुकी है या जो पहले से ही ज्ञात हैं या ऐसी स्थिति में हैं जहां यह स्पष्ट है कि क्या हो रहा है।
 - Example : *Please would you pass the salt.*

23. Answer: a

Explanation:

The correct answer is 'has advised.'

★ Key Points

- "Has advised" is a grammatically correct option.
- **Structure: has/have/had + V3**
 - Example : *We have gone there on Monday.*
- Also, the subject "**Municipal Corporation**" is a singular noun, hence a singular verb should be used.
- Correct phrase: *the Municipal Corporation **has advised** hospitals to retain back-up health workers.....*

★ Additional Information

- A modal verb is a type of verb that is used to indicate modality – that is: likelihood, ability, permission, request, capacity, suggestions, order, obligation, or advice.
- In English, the modal verbs commonly used are can, could, may, might, shall, should, will, would, and must.
 - Example: *My keys must be in the car.*

★ Hinglish

- "Has advised" एक व्याकरणिक रूप से सही विकल्प है।
- Structure: has/have/had + V3
 - Example : *We have gone there on Monday.*
- साथ ही, subject "Municipal Corporation" एकवचन संज्ञा है, इसलिए एकवचन क्रिया का प्रयोग किया जाना चाहिए।

24. Answer: a

Explanation:

The correct answer is 'staff.'

★ Key Points

- Let us discuss the meanings of the given options:
 - Staff : the group of people who work for a particular organization . (किसी संस्था के कार्यकर्ता या कर्मचारी; स्टाफ़।)
 - **Guards** : persons who protect a place or people, or who stops prisoners from escaping (वसुरक्षा कर्मचारी।)
 - **Members** : persons, animals or things that belong to a group, club, organization, etc. (किसी वर्ग, क्लब, संगठन आदि से संबंधित व्यक्ति, पशु या वस्तु, किसी संगठन आदि का सदस्य।)
 - **Patients** : persons who are receiving medical treatment. (रोगी जिसका इलाज चल रहा हो।)
- Here, the passage is talking about the people who are working in that hospital.
- Correct phrase : and move the remaining **staff** to other units.

★ Additional Information

- Let us see the synonyms of the given words:

Word	Synonym
Staff	Workers
Guards	Sentries
Members	Associates

25. Answer: c

Explanation:

The correct answer is 'such as .'

★ Key Points

- **As well as** is a conjunction that means in addition.
 - **Example** : Zachary is in Video Game Club and Chess Club **as well as** on the Academic Team.

- We use **similar to** if one thing matches another, or if they match, they are the same or have similar qualities.
 - **Example** : *Dolphins search for prey primarily using echolocation, which is similar to sonar.*
- We use **such as** to provide specific examples of something you're talking about.
 - **Example** : *In this forest, you'll see many types of coniferous trees, such as pine and spruce.*
- We use **along with** to denote together with (something or someone).
 - **Example** : *A bill came along with the merchandise.*
- Here, we are talking about examples of diseases.
- Correct phrase: *.....diseases such as cancer, heart or kidney disease, which need urgent services.*

★ Additional Information

- A modal verb is a type of verb that is used to indicate modality – that is: likelihood, ability, permission, request, capacity, suggestions, order, obligation, or advice.
- In English, the modal verbs commonly used are can, could, may, might, shall, should, will, would, and must.
 - Example: *My keys must be in the car.*

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- **As well** एक संयोजन है जिसका अर्थ है अतिरिक्त।
 - Example : *Zachary is in Video Game Club and Chess Club as well as on the Academic Team.*
- हम similar to का उपयोग करते हैं यदि एक चीज दूसरे से मेल खाती है, या यदि वे मेल खाते हैं, तो वे समान हैं या समान गुण हैं।
 - Example : *Dolphins search for prey primarily using echolocation, which is similar to sonar.*
- आप जिस चीज़ के बारे में बात कर रहे हैं उसके विशिष्ट उदाहरण प्रदान करने के लिए हम **such as** का उपयोग करते हैं।
 - Example : *In this forest, you'll see many types of coniferous trees, such as pine and spruce.*

- हम (कुछ या किसी) के साथ एक साथ निरूपित करने के लिए **along with** का उपयोग करते हैं।
 - Example : *A bill came along with the merchandise.*

26. Answer: d

Explanation:

Given:

1) Raman immediate scored higher than Ritesh, but he is second lower to Harshita.

Harshita > _____ > Raman > Ritesh

2) Ankur is the second-lowest scorer.

Harshita > _____ > Raman > Ritesh > Ankur > _____

Now, Raghav position may be second and may be last.

Now we check all the given options:

Option (1) Between Raman and Ritesh → False (Nobody scores between Raman and Ritesh)

Option (2) Just below Ritesh → False (Ankur is just below the Ritesh)

Option (3) Just above Harshita → False (Harshit is score highest)

Option (4) Just above Raman → True (Raghav position maybe just above Raman)

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

27. Answer: c

Explanation:

According to BODMAS rule:

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

Given equation $(38 \text{ A } 17) \text{ B } 9 \text{ C } 117 \text{ D } 13 \text{ E } 94 = 104$

Option 1: Using the combination +, ÷, ×, +, -

$$(38 + 17) \div 9 \times 117 + 13 - 94 = 104$$

By BODMAS rule

$$55 \div 9 \times 117 + 13 - 94 = 104$$

$$6.12 \times 117 + 13 - 94 = 104$$

$$715 + 13 - 94 = 104$$

$$728 - 94 = 104$$

$$634 = 104 \text{ (LHS} \neq \text{RHS)}$$

Option 2: Using combination ×, -, ÷, +, -

$$(38 \times 17) - 9 \div 117 + 13 - 94 = 104$$

$$646 - 9 \div 117 + 13 - 94 = 104$$

$$646 - 0.076 + 13 - 94 = 104$$

$$659 - 94.076 = 104$$

$$564.924 = 104 \text{ (LHS} \neq \text{RHS)}$$

Option 3: Using the combination -, ×, +, ÷, -

$$(38 - 17) \times 9 + 117 \div 13 - 94 = 104$$

$$21 \times 9 + 117 \div 13 - 94 = 104$$

$$21 \times 9 + 9 - 94 = 104$$

$$189 + 9 - 94 = 104$$

$$198 - 94 = 104$$

$$104 = 104 \text{ (LHS = RHS)}$$

Option 4: Using the combination $\times, \div, +, -, -$

$$(38 \times 17) \div 9 + 117 - 13 - 94 = 104$$

$$1666 \div 9 + 117 - 13 - 94 = 104$$

$$185.12 + 117 - 13 - 94 = 104$$

$$302.12 - 107 = 104$$

$$195.12 = 104 \text{ (LHS} \neq \text{RHS)}$$

Hence, the answer is " $-, \times, +, \div, -$ ".

28. Answer: a

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Explanation:

The figure that will replace the question mark (?) in the following figure series is shown below:

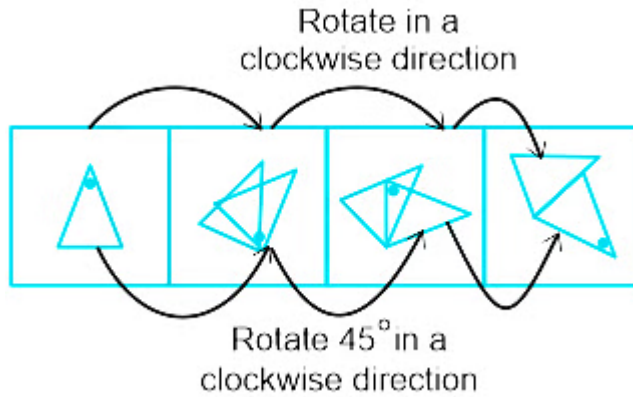
There are two triangles:-

Firstly both triangles are overlaps than

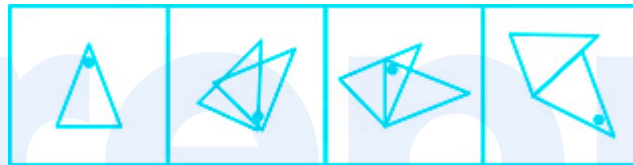
- 1) One triangle rotates 45 degrees in a clockwise direction.
- 2) One triangle rotates in a clockwise direction.

Both triangles rotate over one common edge.

3) The point in the triangle is rotated in a clockwise direction inside each corner of the triangle.



Final series is



Hence, 'option 1' is the correct answer.

29. Answer: b

Explanation:

The pattern follows here is:



$$(256 - 10) \div 2 = 246 \div 2 = 123$$

$$(123 + 9) \div 2 = 132 \div 2 = 66$$

$$(66 - 8) \div 2 = 58 \div 2 = 29$$

$$(29 + 7) \div 2 = 36 \div 2 = 18$$

$$(18 - 6) \div 2 = 12 \div 2 = 6$$

Hence, correct answer is "29"

30. Answer: d

Explanation:

The logic followed here is:

Given:

Reaper : Farmer → The **Reaper** of crops is done by the **farmer** .

Similarly,

Anvil : **Blacksmith** → The **Anvil** of iron is done by the **Blacksmith** .

Hence, 'Blacksmith' is the correct answer.

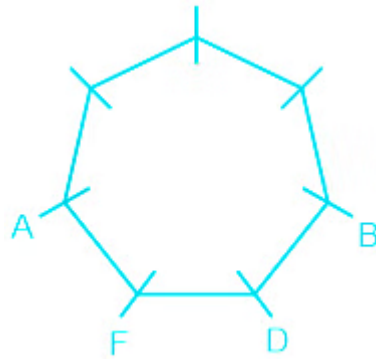
31. Answer: d

Explanation:

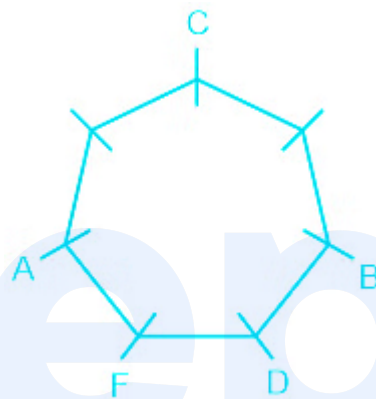
Total person:- A, B, C, D, E and F sitting along the sides of a heptagon table facing the centre

1) D is second to the right of A

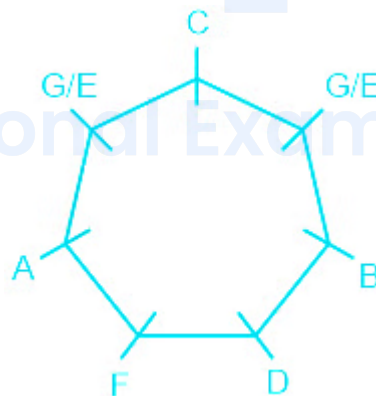
2) B is second to the right of F, who is to the immediate right of A.



3) C is second to the left of A.



4) If G and C are sitting adjoining and the final sitting arrangement is:



Note:- G and E position is not fixed so we decide the position of E according to the options.

Now, check the options for the sitting position of E

Option (1) Immediate left of F → False

Option (2) Immediate left of B → False

Option (3) Immediate right of A → False

Option (4) Immediate right of C → True

Thus, E is Immediate right of C is not given in any option so Immediate right of C will be the correct.

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

32. Answer: c

Explanation:

Statements:

All Machines are Tools.

No Tool is a Computer.

The least possible diagram for the given statements is as follows



Conclusions:

I. No Machine is a Computer → True (because all machines are tools and no tool is a computer so definitely no machine is a computer)

II. Some Computers are Tools → False (because statement given no Tool is a Computer so some computers are tools it is not possible)

Hence, "Only conclusion I follow" is the correct answer.

33. Answer: b

Explanation:

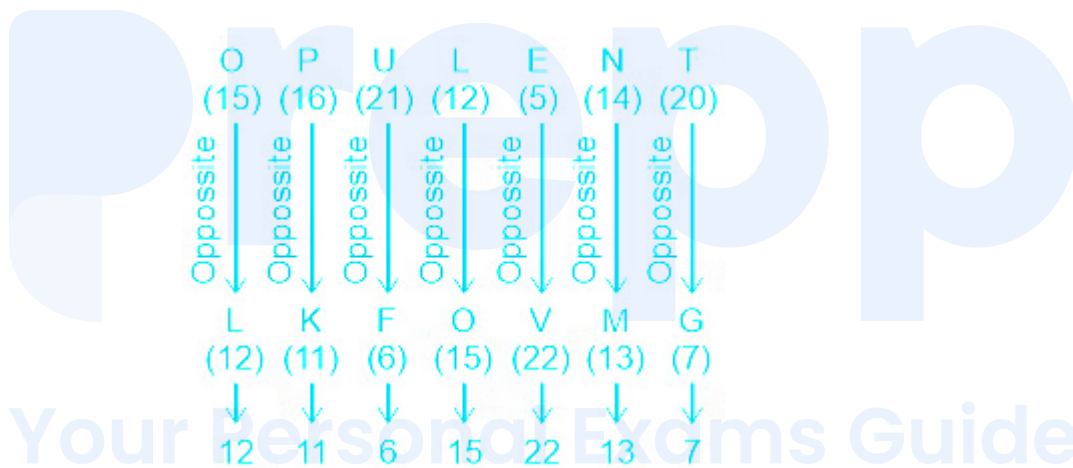
The table is alphabets place value:

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:

Sum of the opposite alphabets places value - 2 = number.

OPULENT is coded as 84



Sum of the opposite alphabets places value - 2 = number

$$\Rightarrow (12 + 11 + 6 + 15 + 22 + 13 + 7) - 2 = 86 - 2 = 84$$

And,

LEARNER is coded as 114

	L	E	A	R	N	E	R
	(12)	(5)	(1)	(18)	(14)	(5)	(18)
Opposite	↓	↓	↓	↓	↓	↓	↓
	O	V	Z	I	M	V	I
	(15)	(22)	(26)	(9)	(13)	(22)	(9)
	↓	↓	↓	↓	↓	↓	↓
	15	22	26	9	13	22	9

Sum of the opposite alphabets places value - 2 = number

$$\Rightarrow (15 + 22 + 26 + 9 + 13 + 22 + 9) - 2 = 116 - 2 = 114$$

Similarly,

PHYSICS = ?

	P	H	Y	S	I	C	S
	(16)	(8)	(25)	(19)	(9)	(3)	(19)
Opposite	↓	↓	↓	↓	↓	↓	↓
	K	S	B	H	R	X	H
	(11)	(19)	(2)	(8)	(18)	(24)	(8)
	↓	↓	↓	↓	↓	↓	↓
	11	19	2	8	18	24	8

Sum of the opposite alphabets places value - 2 = number

$$\Rightarrow (11 + 19 + 2 + 8 + 18 + 24 + 8) - 2 = 90 - 2 = 88$$

Hence, ' PHYSICS ' is coded as "88".

34. Answer: a

Explanation:

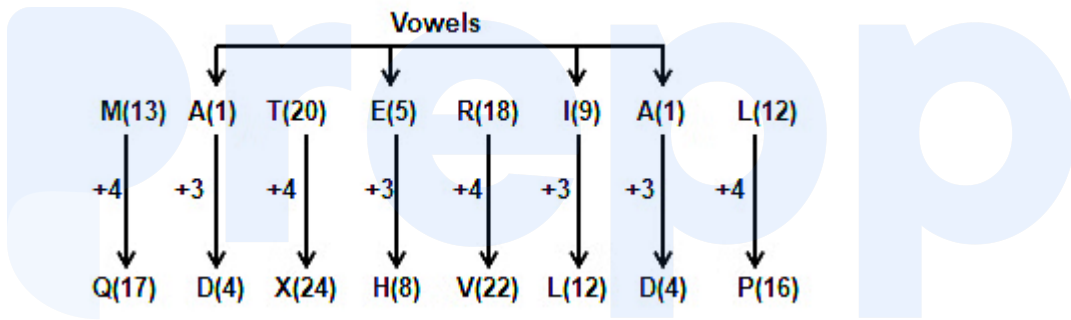
The table is alphabets place value:

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:

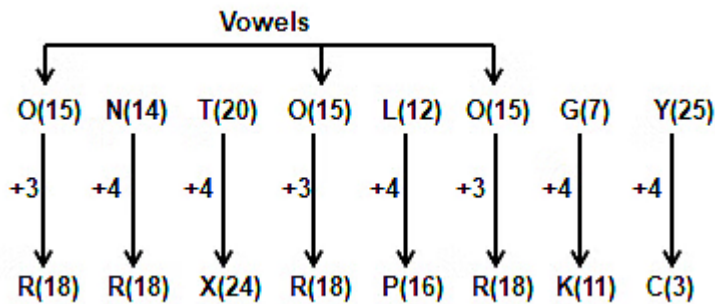
- consonants are coded as + 4 = Alphabet.
- vowels are coded as + 3 = Alphabet.

MATERIAL is written as QDXHVLDP



Similarly,

ONTOLOGY = ?



Hence, ' ONTOLOGY ' is coded as " RRRRPRKC ".

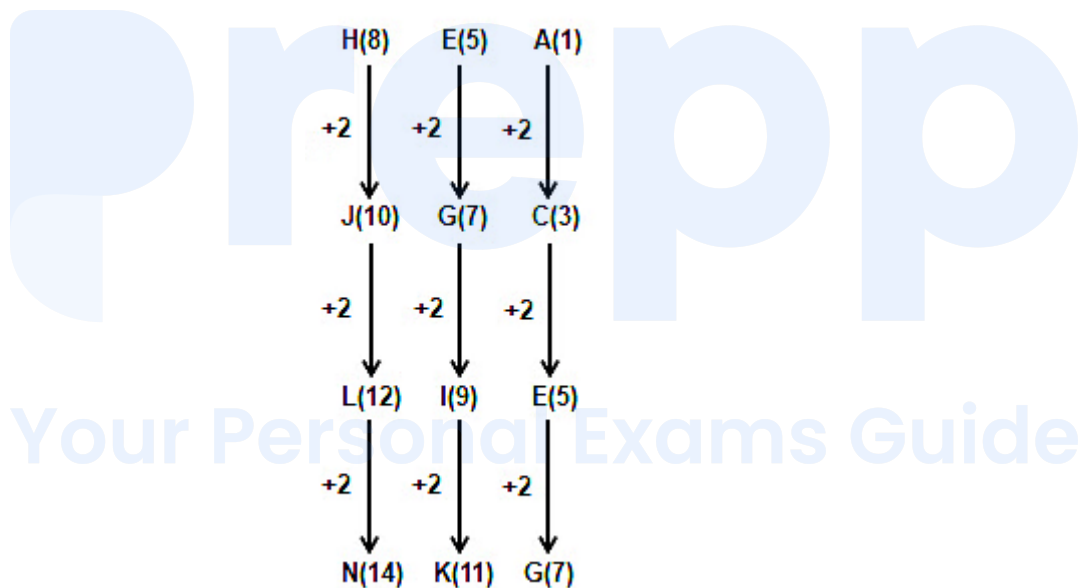
35. Answer: a

Explanation:

Table show alphabet serial number –

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 is,



Hence, "NKG" is the complete series.

36. Answer: d

Explanation:

Total Six guest lectures :-

Cryptography, Fluid Dynamics, Big Data Analysis, Wavelet Theory, Differential Equations and Linear Algebra

- 1) Big Data Analysis should be organised on Wednesday.
- 2) Fluid Dynamics should be organised on Friday.

Days	Lectures
Monday	
Tuesday	
Wednesday	Big Data Analysis
Thursday	
Friday	Fluid Dynamics
Saturday	
Sunday	

- 3) One day there will be no lecture (Saturday is not that day), and just before that day, Linear Algebra will be organised.

Case - I

Days	Lectures
Monday	Linear Algebra
Tuesday	Holiday
Wednesday	Big Data Analysis
Thursday	
Friday	Fluid Dynamics
Saturday	
Sunday	

Case- II

Days	Lectures
Monday	
Tuesday	
Wednesday	Big Data Analysis
Thursday	
Friday	Fluid Dynamics
Saturday	Linear Algebra
Sunday	Holiday

- 4) Big data analysis should not be followed by Linear Algebra
- 5) There should be a gap of two days between Cryptography and Linear Algebra.

In case - II Big data Analysis already organised a gap of two days before Linear Algebra.

So, Case-II is false

Days	Lectures
Monday	Linear Algebra
Tuesday	Holiday
Wednesday	Big Data Analysis
Thursday	Cryptography
Friday	Fluid Dynamics
Saturday	
Sunday	

6) Wavelet Theory should be organised immediately after Differential Equations.

Days	Lectures
Monday	Linear Algebra
Tuesday	Holiday
Wednesday	Big Data Analysis
Thursday	Cryptography
Friday	Fluid Dynamics
Saturday	Differential Equations
Sunday	Wavelet Theory

Hence, 'Three' lectures are organised between Big Data Analysis and Wavelet Theory .

37. Answer: c

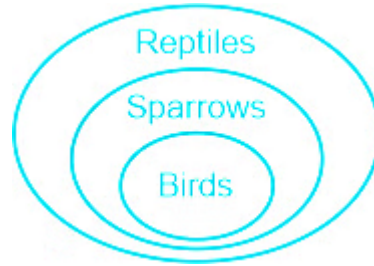
Explanation:

Statements:

All Birds are Sparrows.

All Sparrows are Reptiles.

The least possible diagram for the given statements is as follows



Conclusions:

I. Some Reptiles are Birds → True (Because all birds are sparrows and all sparrows are reptiles so definitely some reptiles are birds)

II. All Reptiles are Sparrows → False (It is possible but not definite)

III. All Birds are Reptiles → True (Because all birds are sparrows and all sparrows are reptiles)

Hence, **“Both conclusions I and III follow”** is the correct answer.

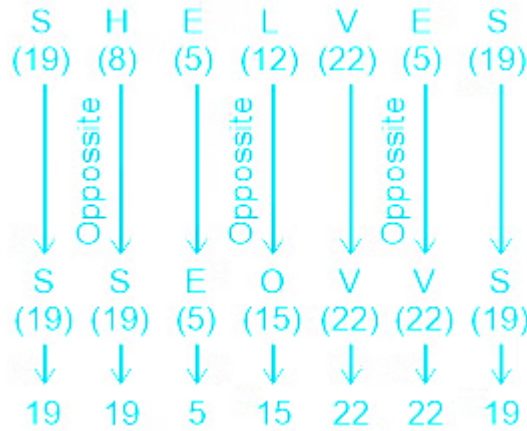
38. Answer: a

Explanation:

The table is alphabets place value:

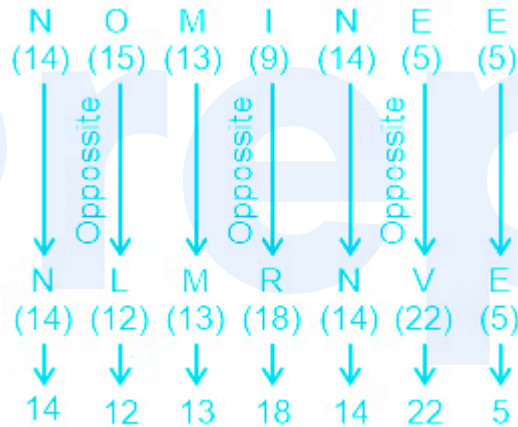
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

SHELVES is coded as 1919515222219



And,

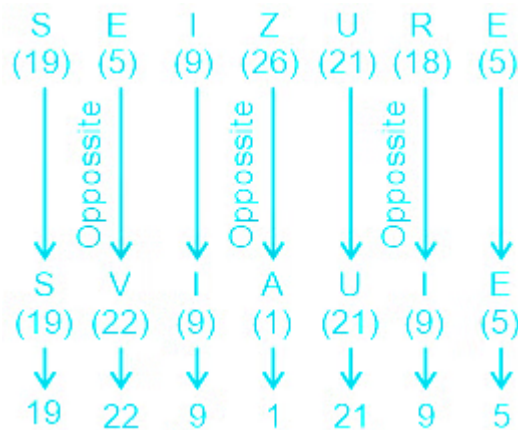
NOMINEE is coded as 1412131814225



Similarly,

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SEIZURE = ?



Hence, ' SEIZURE ' is coded as "1922912195".

39. **Answer: c**

Explanation:

The logic followed here is:

Newspaper : Press → Newspaper is printed in a press.

Similarly,

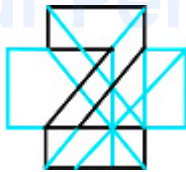
Cloth : Mill → Cloth is Manufactured in a Mill.

Hence, 'Mill' is the correct answer.

40. **Answer: d**

Explanation:

The embedded part of this image is:

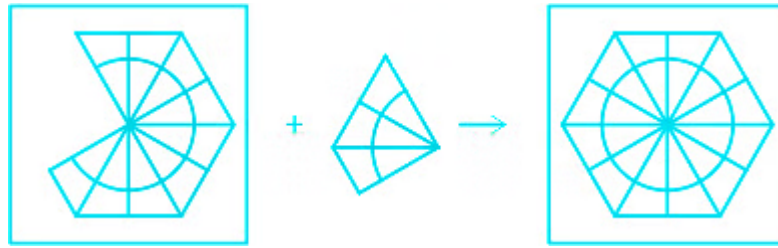


Hence, option (4) is the correct answer.

41. **Answer: d**

Explanation:

The figure that will replace the question mark (?) in the following figure series is shown below:



Hence, 'option 4' is the correct answer.

42. Answer: b

Explanation:

The pattern followed here is,

Let (1st number : 2nd number)

$$(1 \text{ st number}) \times (1 \text{ st number} \div 2) = 2 \text{ nd number}$$

Now follow the steps:

$$16 : 128$$

$$\Rightarrow 16 \times (16 \div 2) = 16 \times 8 = 128 = 2 \text{ nd number}$$

Similarly,

$$4 : ?$$

$$\Rightarrow 4 \times (4 \div 2) = 4 \times 2 = 8 = 2 \text{ nd number}$$

Hence, "8" is correct answer.

43. Answer: c

Explanation:

The image obtained when the paper is unfolded is,

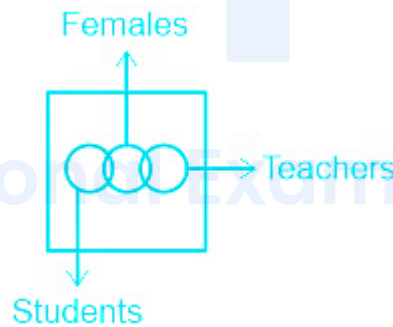


Hence, option 3 is the correct answer.

44. Answer: b

Explanation:

The Venn diagrams best represent the relationship between - Students, Females, Teachers figures are shown below:



Some students are female and some females are teachers.

Hence, 'option 2' is the correct answer.

45. Answer: d

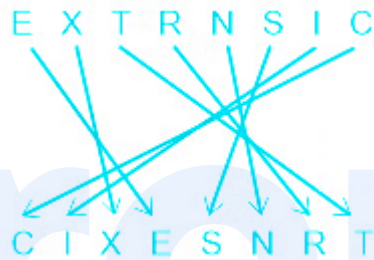
Explanation:

The table is alphabets place value:

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

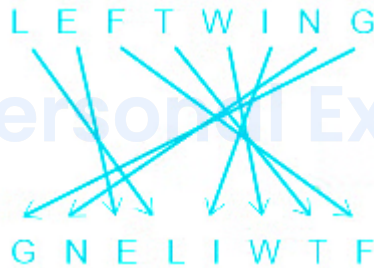
The pattern followed here is:

EXTRNSIC is written as CIXESNRT



Similarly,

'LEFTWING' = ?

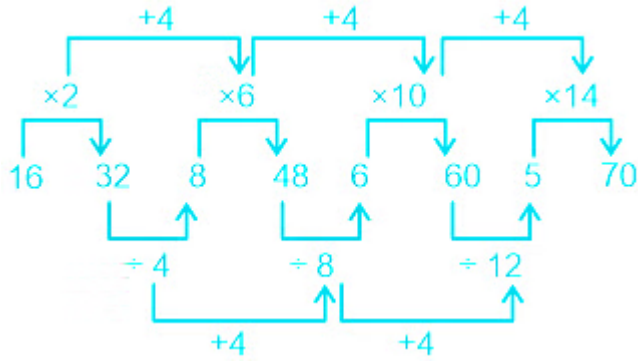


Hence, 'LEFTWING' is coded as "GNELIWTF".

46. Answer: c

Explanation:

The pattern followed here is:

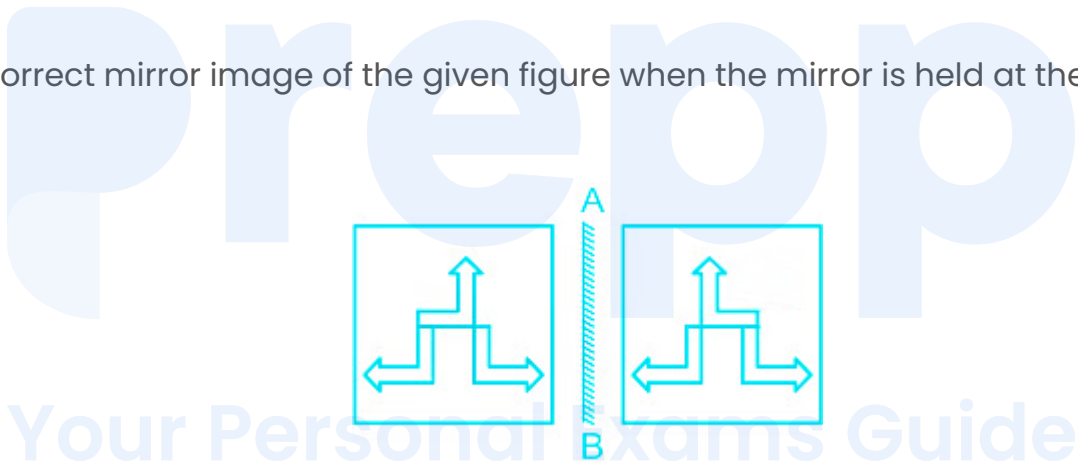


Hence, '70' is the correct answer.

47. Answer: c

Explanation:

The correct mirror image of the given figure when the mirror is held at the right side is:



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

★ Additional Information

In Mirror image left side and right side changed vice-versa where top and bottom remain same.

Reflection of an object into the water is its water image . It appears by inverting an object vertically i.e. upside down.

The water image of the figure looks like the mirror image of the figure in case the mirror is horizontally at the bottom of the figure.

Water image is just a reflection where top and bottom part of the images changed where left and right side of the image remain same

48. Answer: c

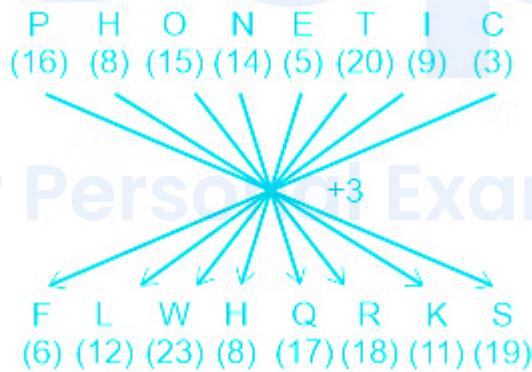
Explanation:

The table is alphabets place value:

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

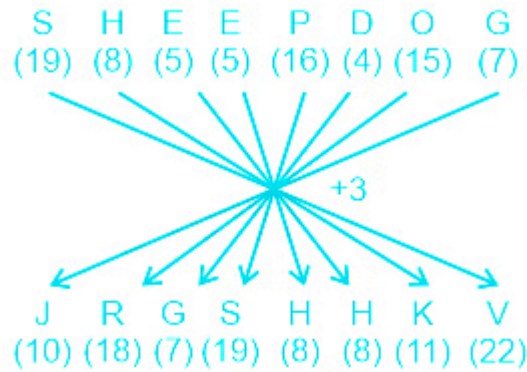
The pattern followed here is:

PHONETIC : FLWHQRKS



Similarly,

SHEEPDOG : _____.



Hence, ' SHEEPDOG ' is coded as "JRGSHHKV".

49. Answer: a

Explanation:

According to the BODMAS rule:

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

Option 1 : 8 and 3

Given:

$$186 \div 17 + 104 - 12 \times 3 = 16$$

After interchange the signs;

$$136 \div 17 + 104 - 12 \times 8 = 16$$

By BODMAS rule

$$8 + 104 - 12 \times 8 = 16$$

$$8 + 104 - 96 = 16$$

$$112 - 96 = 16$$

$$16 = 16 \text{ (LHS = RHS)}$$

Option 2: 4 and 7

Given:

$$186 \div 17 + 104 - 12 \times 3 = 16$$

After interchange the signs;

$$186 \div 14 + 107 - 12 \times 3 = 16$$

By BODMAS rule

$$13.28 + 107 - 12 \times 3 = 16$$

$$13.28 + 107 - 36 = 16$$

$$120.28 - 36 = 16$$

$$84.28 = 16 \text{ (LHS} \neq \text{RHS)}$$

Option 3: 2 and 7

Given:

$$186 \div 17 + 104 - 12 \times 3 = 16$$

After interchange the signs;

$$186 \div 12 + 104 - 17 \times 3 = 16$$

By BODMAS rule

$$15.5 + 104 - 17 \times 3 = 16$$

$$15.5 + 104 - 51 = 16$$

$$119.5 - 51 = 16$$

$$68.5 = 16 \text{ (LHS } \neq \text{ RHS)}$$

Option 4: 6 and 4

Given:

$$186 \div 17 + 104 - 12 \times 3 = 16$$

After interchange the signs;

$$184 \div 17 + 106 - 12 \times 3 = 14$$

By BODMAS rule

$$10.82 + 106 - 12 \times 3 = 14$$

$$10.82 + 106 - 36 = 14$$

$$116.82 - 36 = 14$$

$$80.82 = 14 \text{ (LHS } \neq \text{ RHS)}$$

Hence, the answer is " 8 and 3".

50. **Answer: c**

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Explanation:

The Logic here is as follows:

Step 1 → 1st number

Step 2 → 2nd number = (1st number - 52)

Step 3 → 3rd number = (2nd number + 112)

In (192, 140, 252)

Step 1 → 192

Step 2 $\rightarrow 2^{\text{nd}}$ number = $192 - 52 = 140$

Step 3 $\rightarrow 3^{\text{rd}}$ number = $140 + 112 = 252$

Similarly,

In Option (3) $\rightarrow (186, 134, 246)$

Step 1 $\rightarrow 186$

Step 2 $\rightarrow 2^{\text{nd}}$ number = $186 - 52 = 134$

Step 3 $\rightarrow 3^{\text{rd}}$ number = $134 + 112 = 246$

Hence, the correct answer is "(186, 134, 246)".

★ Mistake Points

The Logic followed here is:

Square of any number - 4 = number

For (192, 140, 252)



$(14)^2 - 4 = 192;$

$(12)^2 - 4 = 140$

$(16)^2 - 4 = 252;$

Option 1: (165, 140, 192)



$(13)^2 - 4 = 165$

prepp
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$$(12) 2 - 4 = 140$$

$$(14) 2 - 4 = 192;$$

Option 2: (221, 192, 252)



$$(15) 2 - 4 = 221;$$

$$(14) 2 - 4 = 192;$$

$$(16) 2 - 4 = 252;$$

Option 3: (186, 134, 246)



$$(14) 2 - 4 = 192 \neq 186$$

$$(12) 2 - 4 = 140 \neq 134$$

$$(16) 2 - 4 = 252 \neq 246$$

Option 4: (165, 117, 221)



$$(13) 2 - 4 = 165$$

$$(11) 2 - 4 = 117$$

$$(15) 2 - 4 = 221;$$

But this pattern is not applicable in option C.

So, this pattern is not applicable.

51. Answer: b

Explanation:

Given:

Cost price of three articles = Rs. 180 each

Loss = 10%

Gain = 25%

Formula used:

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

$$\text{Gain\%} = \frac{\text{Gain}}{\text{CP}} \times 100$$

Calculation:

$$\text{CP of three articles} = \text{Rs. } (180 \times 3) = \text{Rs. } 540$$

$$\text{Total gain\% on whole transaction} = 25\%$$

So,

$$\text{SP of the three articles} = \text{Rs. } (540 \times 125/100)$$

$$\Rightarrow \text{Rs. } 675$$

$$\text{SP of the first article} = \text{Rs. } (180 \times 90)/100$$

$$\Rightarrow \text{Rs. } 162$$

$$\text{CP of the other two articles} = \text{Rs. } (180 \times 2) = \text{Rs. } 360$$

$$\text{SP of the other two articles} = \text{Rs. } (675 - 162) = \text{Rs. } 513$$

Gain on two articles =Rs. $(513 - 360) = \text{Rs. } 153$

Gain% on the two articles = $(153/360 \times 100)$

$\Rightarrow (15,300/360)$

$\Rightarrow 42.5\%$

\therefore The required gain% on the two articles is 42.5%

52. Answer: a

Explanation:

Given:

The mean of 100 items = 47

Items added = 60, 70, 80

Items wrongly replaced = 40, 20, 50

Formula used:

Average = sum of observations/Number of observations

Calculation:

According to the question

The mean of 100 items = $(100 \times 47) = 4700$

Sum of items added = $(60 + 70 + 80) = 210$

Sum of items replaced = $(40 + 20 + 50) = 110$

New sum = $(4700 + 210 - 110) = 4800$

The correct mean = $(4800/100)$

⇒ 48

∴ The required mean is 48

53. Answer: a

Explanation:

Given:

Length of the hall = 18 m

The breadth of the hall = 12 m

the sum of the areas of the floor and the ceiling is equal to the sum of the areas of the four walls

Formula used:

Sum of the area of floor = Sum of the area of ceiling = Length × Breadth

Sum of the area of the four walls = $2 \times \text{Height}(\text{Length} + \text{Breadth})$

The volume of the hall = Length × Breadth × Height

Calculation:

Sum of area of floor = Sum of area of ceiling = $(18 \times 12) \text{ m}^2$

⇒ 216 m^2

Total area of floor and ceiling = $(216 + 216) \text{ m}^2$

⇒ 432 m^2

Sum of area of 4 walls = $2 \times H(18 + 12)$

⇒ 60H

Now,

$$\Rightarrow 60H = 432 \text{ m}^2$$

$$\Rightarrow H = (432/60)$$

$$\Rightarrow H = 36/5$$

$$\text{Volume of the hall} = (18 \times 12 \times 36/5)$$

$$\Rightarrow (7776/5)$$

$$\Rightarrow 1555.2 \text{ m}^3$$

\therefore The volume of the hall is 1555.2 m^3

54. Answer: c

Explanation:

Concept Used:

Follow the BODMAS rule according to the table given below:

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

Calculation:

$$5\frac{5}{29} - \left[\frac{15}{4} \div \left\{ \frac{3}{4} \times \left(\frac{3}{2} - \frac{1}{5} - \frac{1}{3} \right) \right\} \right]$$

$$\Rightarrow 150/29 - \left[15/4 \div \left\{ 3/4 \times \left(3/2 - 1/5 - 1/3 \right) \right\} \right]$$

$$\Rightarrow 150/29 - [15/4 \div \{3/4 \times (45 - 6 - 10)/30\}]$$

$$\Rightarrow 150/29 - [15/4 \div \{3/4 \times 29/30\}]$$

$$\Rightarrow 150/29 - [15/4 \div (29/40)]$$

$$\Rightarrow 150/29 - [15/4 \times 40/29]$$

$$\Rightarrow 150/29 - 150/29$$

$$\Rightarrow 0$$

\therefore The required value is 0

55. Answer: d

Explanation:

Given:

Two numbers are more than a third number = 17% and 50%

Calculation:

Let the value of the third number be $100x$

First number is 17% more than the third number

$$\Rightarrow (100x + 100x \times 17/100)$$

$$\Rightarrow (100x + 17x)$$

$$\Rightarrow 117x$$

Second number is 50% more than the third number

$$\Rightarrow (100x + 100x \times 50/100)$$

$$\Rightarrow (100x + 50x)$$

$\Rightarrow 150x$

The ratio of the two numbers = $(117x : 150x)$

$\Rightarrow 39 : 50$

\therefore The required ratio is $39 : 50$

56. Answer: d

Explanation:

Given:

Principal = Rs. 10,000

Time = $1\frac{1}{2}$ = $3/2$ years

Rate = 10%

Formula used:

$$A = P(1 + R/100)^T$$

$$CI = (A - P)$$

$$SI = (P \times R \times T)/100$$

Calculation:

According to the question

CI for 6-monthly

$P = \text{Rs. } 10,000$

$R = 10/2 = 5\%$

$T = 1.5 \text{ years} = 3 \text{ quarter}$

$$\Rightarrow A = 10,000(1 + 5/100)^3$$

$$\Rightarrow 10,000(105/100)^3$$

$$\Rightarrow (10,000 \times 21/20 \times 21/20 \times 21/20)$$

$$\Rightarrow \text{Rs. } (92,610/8)$$

$$\Rightarrow \text{Rs. } 11,576.25$$

$$CI = A - P$$

$$\Rightarrow \text{Rs. } (11,576.25 - 10,000)$$

$$\Rightarrow \text{Rs. } 1,576.25$$

Now,

$$SI = (10,000 \times 10 \times 3)/(2 \times 100)$$

$$\Rightarrow (10,000 \times 30)/200$$

$$\Rightarrow \text{Rs. } 1,500$$

Now,

$$\text{Difference between CI and SI} = \text{Rs. } (1,576.25 - 1,500)$$

$$\Rightarrow \text{Rs. } 76.25$$

\therefore The required difference is Rs. 76.25

57. Answer: a

Explanation:

Calculation:

$$\text{Total revenue of the company in 2016 and 2018} = (340 + 375) = 715$$

Total expenditure of the company in 2015 and 2017 = $(250 + 275) = 525$

The ratio of the total revenue of the company in 2016 and 2018 to that of the total expenditure in 2015 and 2017 = $(715 : 525)$

$\Rightarrow 143 : 105$

\therefore The required ratio is **143 : 105**

58. Answer: d

Explanation:

Calculation:

The expenditure of the company in 2016 = 320

The total revenue of the company in the year 2014, 2015 and 2018 = $(260 + 300 + 375) = 935$

The average of the total revenue of the company in the year 2014, 2015 and 2018 = $(935/3)$

$\Rightarrow 311.66$

Required percentage = $[(320 - 311.66)/311.66 \times 100]$

$\Rightarrow (8.34 \times 100)/311.66$

$\Rightarrow (834/311.66)$

$\Rightarrow 2.67\% \sim 3\%$

\therefore The required percentage is **3%**

59. Answer: c

Explanation:

Calculation:

The revenue in the year = 2014 = 260

The revenue in the year 2015 = 300

The percentage increase in the revenue in the year 2015 = $[(300 - 260)/260 \times 100]$

$$\Rightarrow (40/260 \times 100)$$

$$\Rightarrow (400/26)$$

$$\Rightarrow 15.38\%$$

It is not between 1% and 3%

Now,

The revenue in the year 2015 = 300

The revenue in the year 2016 = 340

The percentage increase in the revenue in the year 2016 = $[(340 - 300)/300 \times 100]$

$$\Rightarrow (40/300 \times 100)$$

$$\Rightarrow 13.33\%$$

It is not between 1% and 3%

Now,

The revenue in the year 2016 = 340

The revenue in the year 2017 = 350

The percentage increase in the revenue in the year 2017 = $[(350 - 340)/340 \times 100]$

$$\Rightarrow (10/340 \times 100)$$

⇒ 2.94%

It is between 1% and 3%

Now,

The revenue in the year 2017 = 350

The revenue in the year 2018 = 375

The percentage increase in the revenue in the year 2018 = $[(375 - 350)/350 \times 100]$

⇒ $(25/350 \times 100)$

⇒ 7.14%

It is not between 1% and 3%

∴ The percentage increase in the revenue, as compared to that in the preceding year, between 1% and 3% is 2017

60. Answer: a

Explanation:

Given:

Principal₁ = Rs. 6500

Principal₂ = Rs. 7500

Time = 3 years

Formula used:

$SI = (P \times R \times T)/100$

Calculation:

According to the question

$$\Rightarrow (6500 \times x \times 3)/100 + [7500 \times (x - 2) \times 3/100] = 3750$$

$$\Rightarrow 195x + 225x - 450 = 3750$$

$$\Rightarrow 420x - 450 = 3750$$

$$\Rightarrow 420x = 3750 + 450$$

$$\Rightarrow 420x = 4200$$

$$\Rightarrow x = 4200/420$$

$$\Rightarrow x = 10\%$$

The rate on the first investment is $x = 10\%$

\therefore The first investment is Rs. 10%

61. Answer: c

Explanation:

Given:

The sum of the ratio of the A, B and C = $5x : 6x : 7x$

B gives from his share to C = Rs. 400

The ratio of shares of A, B and C = $2 : 3 : 4$

Calculation:

According to the question,

\therefore 400 is given by B to C

\therefore Sum left with B = $(6x - 400)$

\Rightarrow Sum left with C = $(7x + 400)$

Now,

New Ratio of the B and C = $\frac{3}{4}$

$$\Rightarrow (6x - 400)/(7x + 400) = \frac{3}{4}$$

$$\Rightarrow 24x - 1600 = 21x + 1200$$

$$\Rightarrow (24x - 21x) = (1600 + 1200)$$

$$\Rightarrow 3x = 2800$$

$$\Rightarrow x = 2800/3$$

The sum of shares of A and C in the beginning = $(5x + 7x) = 12x$

$$\Rightarrow (12 \times 2800/3)$$

$$\Rightarrow (4 \times 2800)$$

$$\Rightarrow \text{Rs. } 11,200$$

\therefore The required shares of A and C is Rs. 11,200

62. Answer: d

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Explanation:

Given:

The cost price of 30 articles is the same as the selling price of x articles

Profit = 25%

Formula used:

Profit = SP - CP

Profit% = Profit/CP \times 100

Calculation:

Let the CP of the each article be Rs. 1

CP of x article = Rs. x

And, SP of each article = Rs. 30

Profit = SP - CP

$$\Rightarrow (30 - x)$$

Now,

$$\text{Profit\%} = [(30 - x)/x \times 100] = 25$$

$$\Rightarrow 3000 - 100x = 25x$$

$$\Rightarrow 3000 = 25x + 100x$$

$$\Rightarrow 3000 = 125x$$

$$\Rightarrow x = (3000/125)$$

$$\Rightarrow x = 24$$

\therefore The value of the x is 24

63. Answer: b

Explanation:

Given:

A fruit seller has a sale for five months = Rs. 10,435, Rs. 9,927, Rs. 10,855, Rs. 10,230 and Rs. 9,562

Formula used:

Sum of observations = Average \times Number of observations

Calculation:

The total sell of fruits in five months = Rs. $(10,435 + 9,927 + 10,855 + 10,230 + 9,562)$

⇒ Rs. 51,009

The sale in the sixth month = Rs. $(10,500 \times 6)$

⇒ Rs. 63,000

The difference between the average sale = Rs. $(63,000 - 51,009)$

⇒ Rs. 11,991

∴ The required sale is Rs. 11,991

64. Answer: a

Explanation:

Given:

The curved surface area of a right circular cone = $65\pi \text{ cm}^2$

Radius = 5 cm

Formula used:

The curved surface area of a right circular cone = $\pi r l$

$$l^2 = r^2 + h^2$$

Volume of the cone = $\frac{1}{3}\pi r^2 h$

Calculation:

According to the question

$$\Rightarrow \pi r l = 65\pi$$

$$\Rightarrow (\pi \times 5 \times l) = 65\pi$$

$$\Rightarrow 5l = 65$$

$$\Rightarrow l = 13 \text{ cm}$$

Now,

$$l^2 = r^2 + h^2$$

$$\Rightarrow (13)^2 = (5)^2 + h^2$$

$$\Rightarrow 169 = 25 + h^2$$

$$\Rightarrow h^2 = 169 - 25 = 144 \text{ cm}^2$$

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

Now,

$$\text{Half of the volume of the cone} = (1/3 \times \pi \times 25 \times 12)/2$$

$$\Rightarrow (100\pi)/2$$

$$\Rightarrow 50\pi$$

\therefore The required volume is 50π

65. Answer: a

Explanation:

Given:

The three simple discounts = 10%, 12% and 15%

Formula used:

$$\text{Equivalent discount} = [100 - \text{discounted value}]/\text{Initial value} \times 100]$$

Calculation:

Let the initial value be 100

According to the question

Discounted value = (100 - 10)% of (100 - 12)% of (100 - 15)% of 100

$$\Rightarrow (90/100 \times 88/100 \times 85/100 \times 100)$$

$$\Rightarrow (9/10 \times 22/25 \times 85)$$

$$\Rightarrow (9/5 \times 11/5 \times 17)$$

$$\Rightarrow (1683/25)$$

$$\Rightarrow 67.32$$

Equivalent discount = $[100 - \text{discounted value}] / \text{Initial value} \times 100$

$$\Rightarrow [(100 - 67.32) / 100 \times 100]$$

$$\Rightarrow (32.68 \times 100) / 100$$

$$\Rightarrow 32.68\%$$

\therefore A single discount equivalent to the three successive discounts is 32.68%

66. Answer: d

Explanation:

Given:

Time taken by A = 10 days

Time taken by B = 15 days

Time taken by C = 30 days

B and C both assist on every third day

Formula used:

Work = Efficiency × Time

Calculation:

LCM of 10, 15 and 30 is 30

Efficiency of A = $(30/10) = 3$ units/days

Efficiency of B = $(30/15) = 2$ units/days

Efficiency of C = $(30/30) = 1$ units/days

Work done by A on first two days = $(3 \times 2) = 6$

Work done by A, B and C on third day = $(3 + 2 + 1) = 6$

Total work done by A, B and C in 3 days = $(6 + 6) = 12$

Similarly,

Work done by A, B and C in next three days = 12 units

Total work done by A, B and C in 6 days = $(12 + 12) = 24$ unit

Remaining work = $(30 - 24)$ units = 6 units

Number of days taken by A to complete the remaining work = $(6/3) = 2$ days

Total days = $(3 + 3 + 2) = 8$ days

∴ The required time is 8 days

67. Answer: c

Explanation:

Given:

The least number = 8, 12, 30, 36 and 45 and x

Concept used:

LCM - The smallest positive integer that is evenly divisible by both a and b

Calculation:

According to the question

LCM of 8, 12, 30, 36 and 45

$$\Rightarrow 2 \times 2 \times 2 \times 3 \times 3 \times 5$$

As we know, Number is a perfect square then,

$$\Rightarrow 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 5 \times 5$$

$$\Rightarrow 3600$$

\therefore The value of x is 3600

68. **Answer: d**

Explanation:

Given:

Length of the street = 900 m = 0.9 km

Time = 6 min = $(6/60) = 1/10$ hours

Concept used:

1 km = 1000 m

1 hour = 60 min

Speed = Distance/Time

Calculation:

Required speed = $(0.9/1/10)$ km/h

$\Rightarrow (0.9 \times 10)$ km/h

$\Rightarrow 9$ km/h

\therefore The speed of the person is 9 km/h

69. Answer: b

Explanation:

Given:

A train can travel 40% faster than a car.

Both the train and the car start from point A at the same time and reach point B, which is 70 km away from point A

The train lost about 15 minutes while stopping at stations

Formula used:

Speed = Distance/Time

Calculation:

Let the speed of the car be x

Speed of the train = $[x(1 + 40/100)]$

$\Rightarrow (x \times 140/100)$

$\Rightarrow 140x/100$

$\Rightarrow 1.4x$

Time taken by car to cover 70 km

$$\Rightarrow 70/x$$

Time taken by train to cover 70 km

$$\Rightarrow 70/1.4x$$

According to the question

$$\Rightarrow 70/x - 70/1.4x = 15/60$$

$$\Rightarrow x = (70 - 50)/1/4$$

$$\Rightarrow x = (20 \times 4)$$

$$\Rightarrow x = 80 \text{ km/h}$$

\therefore The speed of the car is 80 km/h

70. Answer: d

Explanation:

Given: Your Personal Exams Guide

Time taken by A and B to do a piece of work = 20 days

Time taken by A alone to do the same work = 30 days

Formula used:

Work = Efficiency \times Time

Calculation:

LCM of 20 and 30 is 60

Efficiency of A and B = $(60/20) = 3$ units/day

Efficiency of A = $(60/30) = 2$ units/day

Then,

Time taken by B alone to complete the same work = $[(60/(3 - 2))]$

$\Rightarrow 60/1$

$\Rightarrow 60$ days

\therefore The required time taken by B is 60 days

71. Answer: c

Explanation:

Concept Used:

Follow the BODMAS rule according to the table given below:

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

Calculation:

$$\left\{ \left(1 - \frac{2}{15} \right) + \frac{2}{5} \right\} \div \frac{14}{15} + \left(\frac{2}{3} \text{ of } \frac{6}{7} \div \frac{4}{9} - \frac{1}{6} \times 1\frac{5}{7} \right)$$

$$\Rightarrow \left\{ \left(1 - \frac{2}{15} \right) + \frac{2}{5} \right\} \div \frac{14}{15} + \left(\frac{2}{3} \text{ of } \frac{6}{7} \div \frac{4}{9} - \frac{1}{6} \times \frac{12}{7} \right)$$

$$\Rightarrow \left\{ \left(1 - \frac{2}{15} \right) + \frac{2}{5} \right\} \div \frac{14}{15} + \left(\frac{4}{7} \div \frac{4}{9} - \frac{1}{6} \times \frac{12}{7} \right)$$

$$\Rightarrow \{(15 - 2)/15 + 2/5\} \div 14/15 + (4/7 \div 4/9 - 1/6 \times 12/7)$$

$$\Rightarrow \{13/15 + 2/5\} \div 14/15 + (4/7 \div 4/9 - 1/6 \times 12/7)$$

$$\Rightarrow \{(13 + 6)/15\} \div 14/15 + (4/7 \div 4/9 - 1/6 \times 12/7)$$

$$\Rightarrow 19/15 \div 14/15 + (4/7 \div 4/9 - 1/6 \times 12/7)$$

$$\Rightarrow 19/15 \times 15/14 + (9/7 - 1/6 \times 12/7)$$

$$\Rightarrow 19/14 + (9/7 - 2/7)$$

$$\Rightarrow (19/14 + 1)$$

$$\Rightarrow (19 + 14)/14$$

$$\Rightarrow 33/14$$

\therefore The required value is $33/14$

72. Answer: c

Explanation:

Given: Your Personal Exams Guide

The cost of fencing around it at Rs. 11 per metre = Rs. 2,420

Formula used:

Perimeter of the circle = $2\pi r$

Area of the circle = πr^2

Calculation:

Cost of 1 m fencing = Rs. 11 per metre

Total length of the fencing = $(2,420/11)$

$$\Rightarrow 220 \text{ m}$$

Now,

$$\text{Perimeter of the circle} = 2\pi r$$

$$\Rightarrow 2 \times \frac{22}{7} \times r = 220$$

$$\Rightarrow 44r/7 = 220$$

$$\Rightarrow r = (220 \times 7)/44$$

$$\Rightarrow r = 35 \text{ m}$$

Now,

$$\text{Area of the circle} = \pi r^2$$

$$\Rightarrow \left(\frac{22}{7} \times 35 \times 35\right) \text{ m}^2$$

$$\Rightarrow (22 \times 35 \times 5) \text{ m}^2$$

$$\Rightarrow 3850 \text{ m}^2$$

\therefore The area of the field is Rs. 3850 m²

Your Personal Exams Guide

73. Answer: a

Explanation:

Given:

A girl spend her income = 76%

Her income increase = 18%

Her expenditure increases = 25%

Calculation:

Let the income of the woman be Rs. 100

Expenditure of woman = (76% of 100)

$$\Rightarrow (76/100 \times 100)$$

$$\Rightarrow 76$$

$$\text{Saving} = (100 - 76) = 24$$

When income increased by 18%

New income of the woman = 100 + 18% of 100

$$\Rightarrow (100 + 18/100 \times 100) = 118$$

When expenditure increased by 25%

New expenditure of the woman = 76 + 25% of 76

$$\Rightarrow (76 + 25/100 \times 76)$$

$$\Rightarrow (76 + 1/4 \times 76)$$

$$\Rightarrow (76 + 19)$$

$$\Rightarrow 95$$

$$\text{New saving} = (118 - 95)$$

$$\Rightarrow 23$$

$$\text{Saving decreases} = (24 - 23) = 1$$

$$\text{Percentage decreases} = (1/24 \times 100)$$

$$\Rightarrow 25/6$$

$$\Rightarrow 4.166\% \sim 4.2\%$$

\therefore The savings are decreased by 4.2%

★ Shortcut Trick

Let the Total Salary be 100

She Spends 76% of salary = $0.76 \times 100 = 76$

She saves her salary = $100 - 76 = 24$

Salary is increased by 18% = $100 + 18\%(100) = 118$

Expenditure increases by 25% = $76 + 25\%(76) = 95$

Savings = $(118 - 95) = 23$

Percentage of Savings = $\frac{24-23}{24} \times 100 = 4.16$

\therefore The savings are decreased by 4.2%

74. Answer: b

Explanation:

Given:

The ratio of income of A and B = 3 : 4

The ratio of expenditure of A and B = 9 : 5

The income of A is equal to three times the expenditure of B

Formula used:

Saving = Income – Expenditure

Calculation:

Let the income of A and B be 3x and 4x respectively

According to the question

The income of A is equal to three times the expenditure of B

$$\Rightarrow 3x = 5 \times 3$$

$$\Rightarrow 3x = 15$$

$$\Rightarrow x = 5$$

Now,

$$\text{The income of A} = 3x = 3 \times 5 = 15$$

$$\text{The income of B} = 4x = 4 \times 5 = 20$$

As we know that,

$$\text{Saving} = \text{Income} - \text{Expenditure}$$

So,

$$\text{The ratio of saving of A and B} = (15 - 9) : (20 - 5)$$

$$\Rightarrow 6 : 15$$

$$\Rightarrow 2 : 5$$

\therefore The required ratio of saving of A and B is 2 : 5

Your Personal Exams Guide

75. **Answer: c**

Explanation:

Given:

The average weight of 6 persons increases by 2.5 kg when a new person comes in place of one of them weighing 55 kg

Concept used:

Weight of new person = Weight of the person being replaced + Total change in weight

Calculation:

Weight of the person replaced = 55 kg

Total change in weight due to new person = 2.5 kg per person for 6 people

Total change in weight due to new person = $(2.5 \times 6) = 15$ kg

Weight of the new person = $(55 + 15)$ kg

\Rightarrow 70 kg

\therefore Weight of the new person is 70 kg

76. Answer: d

Explanation:

The correct answer is 1992.

★ Key Points

- Project Elephant was launched in February 1992 to assist states having free-ranging populations of wild elephants to ensure the long-term survival of identified viable populations of elephants in their natural habitats.
- The project is being implemented in sixteen states.
 - Andhra Pradesh, Arunachal Pradesh, Assam, Jharkhand, Karnataka, Kerala, Meghalaya, Nagaland, Odisha, Tamil Nadu Uttaranchal and West Bengal.

★ Additional Information

- Project Tiger is an ongoing Centrally Sponsored Scheme launched in 1973 by the Ministry of Environment, Forests, and Climate Change to provide central assistance for tiger conservation in designated tiger reserves.
- The Project Tiger is administered by the National Tiger Conservation Authority (NTCA) which is a statutory body of the Ministry, to perform supervisory or coordination roles.

77. Answer: b

Explanation:

The correct answer is NPCI.

★ Key Points

- The National Payments Corporation of India is an umbrella organisation for operating retail payments and settlement systems under the ownership of the Reserve Bank of India in India.
- NPCI was founded in 2008.
- National Payments Corporation of India (NPCI) on 20 October 2021 launched NPCI Tokenization System (NTS) to support the tokenization of RuPay cards.
- National Payments Corporation of India (NPCI)'s international payments arm NPCI International Payments Limited (NIPL) has signed an MoU with TerraPay, a Netherlands -based global payments infrastructure company.

★ Additional Information

- Small Industries Development Bank of India (SIDBI) was formed in the year 1990, It is the apex regulatory body for the licensing and regulation of micro, small and medium enterprise finance companies in India.
- Insurance Regulatory and Development Authority of India is a statutory body formed under an Act of Parliament, i.e., Insurance Regulatory and Development Authority Act, 1999 (IRDAI Act 1999) for the overall supervision and development of the Insurance sector in India.
- National Bank for Agriculture and Rural Development (NABARD) is an apex development finance institution fully owned by the Government of India.

78. Answer: a

Explanation:

The correct answer is yellow sooty flame.

★ Key Points

- The unsaturated hydrocarbons like alkenes and alkynes are aromatic hydrocarbons that are partially burned with a yellow sooty flame.
- It is due to the incomplete combustion of the hydrocarbon in the air.
- A large amount of carbon does not completely oxidize in the air and gives a sooty flame.

★ Additional Information

- The saturated hydrocarbons burn with a Blue colour non- sooty flame.
- Alkanes are saturated hydrocarbons and are classified as a type of aliphatic hydrocarbon.
- Hexane is a type of Alkanes that burns with a blue non-sooty flame.

79. Answer: b

Explanation:

The correct answer is Shortughai.

★ Key Points

- **Shortughai** is located in **Afghanistan**.
 - Harappans procured materials for craft production from various places.
 - From Shortughai, in far off Afghanistan, lapis lazuli which was a bluestone was procured.

★ Additional Information

Site Name	Excavators	River Bank	Present Location
Surkotada	J.P Joshi	-	Kutch(Gujarat)
Sutkagendor	Aurel Stein	Dashta	Baluchistan(Pakistan)
Kot-Diji	Fazal Ahmad Khan	Indus	Sindh(Pakistan)
Chanhudaro	N.G. Mazumder	Indus	Sindh(Pakistan)

80. Answer: d

Explanation:

The correct answer is It has low melting point.

★ Key Points

- Graphite is an allotrope of carbon.
- It is a conductor of heat and electricity.
- It has a lower density than diamond.
- Graphite is used as a lubricant in high temperatures.
- Because it has a high melting point.
- Hence statement 4 is the correct answer.

★ Additional Information

- In graphite single carbon atom is bonded with the other three carbon atoms.
- So it looks like a sheet in a three-dimensional figure.
- Between the sheets, weak forces are there.
- It has hexagonal rings of strongly bonded carbon atoms while weak interplate bonds.
- So it is a soft solid and uses as a lubricant.

81. Answer: a

Explanation:

The correct answer is wildlife protection.

★ Key Points

- Amrita Devi Bishnoi Award is given to the people for their courage and dedication to protecting wildlife.
- In 1731, the king of Jodhpur in Rajasthan asked one of his ministers to arrange wood for constructing a new palace.
- The minister and workers went to a forest near a village, inhabited by Bishnois, to cut down trees.
- The Bishnoi community is known for its peaceful co-existence with nature.
- The effort to cut down trees by the kings was thwarted by the Bishnois.
- A Bishnoi woman Amrita Devi showed exemplary courage by hugging a tree and daring the king's men to cut her first before cutting the tree.
- The tree mattered much more to her than her own life.

82. Answer: d

Explanation:

The correct answer is Makemake.

★ Key Points

- Makemake is the 3rd largest dwarf planet in the solar system.
- It is the 2nd farthest dwarf planet from the Sun.
- Makemake was discovered by scientists in the year 2005 and was recognized as a dwarf planet by the International Astronomical Union (IAU) in July 2008.
- Examples of Dwarf planets: Eris, Pluto, and Haumea.

★ Additional Information

- **Callisto** is the third largest satellite in the solar system and is almost the size of Mercury.

- Ganymede is a satellite of Jupiter and the largest satellite in our solar system.
 - It is larger than Mercury and Pluto, and three-quarters the size of Mars.
 - **Europa** is the smallest moon of Jupiter.
-

83. Answer: d

Explanation:

The correct answer is Manipur.

★ Key Points

- The festival of Yaoshang is considered one of the major festivals of Manipur.
- People from different communities come together to take part in the celebrations.
- A five-day event celebrated on the full moon day of the month of Lamta (February–March)
- The festival is generally celebrated at the same time as Holi.

★ Additional Information

- Chief Minister of Manipur – N. Biren Singh (March 2022)
 - Governor of Manipur – La. Ganesan
 - Dances of Manipur – Raas, Shim Lam, Thang ta, etc.
-

84. Answer: a

Explanation:

The correct answer is Magnesium.

- **Kieserite** is the ore of **Magnesium**.
- Other ores are **Magnesite, Dolomite, Epsom Salt, and carnalite**.

★ Additional Information

A list of important metals with ores is as follows:

Metal	Ores
Sodium	Chile saltpetre, Borax, Common Salt
Aluminium	Bauxite, Felspar, Cryolite, Alunite, Kaolin, Corundum
Calcium	Dolomite, calcite, Gypsum, Fluorspar, Asbestos
Potassium	Nitre (saltpeter), carnalite
Lead	Galena
Mercury	Cinnabar
Copper	Cuprite, Copper Glance, Copper pyrites
Zinc	Zinc blende, Zincite, Calamine
Silver	Ruby Silver, horn Silver
Iron	Haemetite, Lemonite, Magnetite, Siderite, Iron Pyrite, copper pyrites

85. Answer: d

Explanation:

The correct answer is 1985.

★ Key Points

- South Asian Association for Regional Cooperation (SAARC) was established on **8th December 1985**.
- The Charter was signed by the leaders of eight South Asian nations- Bangladesh, Bhutan, Afghanistan, Maldives, Nepal, India, Pakistan, and Sri Lanka.

- SAARC is currently focusing on regional cooperation in all fields of development activity that impact the livelihood of people.

★ Additional Information

- SAARC is headquartered in **Kathmandu, Nepal**.
- It was established in 1985 in Dhaka, Bangladesh.
- It has **8 nations as its members and there are 9 observers**.
- The 8th member to join SAARC was Afghanistan in the year 2007.

86. Answer: b

Explanation:

The correct answer is Battle of Haldighati.

★ Key Points

- The Battle of Haldighati was fought on 18th June 1576 .
 - It was fought between the forces of Rana of Mewar, Maharana Pratap and Mughal Emperor Akbar.
 - The site of the battle was a narrow mountain pass at Haldighati.
- The Battle of Thanesar took place in 1567 near Thanesar on the banks of the Saraswathi river in Haryana.
 - The Battle of Thanesar also known as the **Battle of the Ascetics** took place in the summer of 1567, between Mughal Emperor Akbar and Rajputs near Thanesar on the banks of the Saraswati Ghaggar River.
- The second battle of Panipat took place in 1556 at Panipat
 - The battle was fought between the Hindu emperor of north India **hemu**Chandra Vikram Aditya and Akbar of the Mughal empire.
- The **Battle of Tukaroi** was fought between Akbar and the Sultanate of Bengal on 3 March 1575.
 - The battle was won by the Mughal forces and it resulted in the Mughal annexation of Bengal.
- Hence **Battle of Haldighati is the latest battle**.

87. Answer: c

Explanation:

The correct answer is Andhra Pradesh.

★ Key Points

- In the first leg, the Ministry has identified state-owned sports facilities in eight states of India, including,
 - Karnataka,
 - Odisha,
 - Kerala,
 - Telangana
 - Arunachal Pradesh,
 - Manipur,
 - Mizoram and
 - Nagaland.
- Hence Andhra Pradesh is not on the list of eight states.

★ Additional Information

- Sports Minister Kiren Rijju , on 22 December 2020, virtually inaugurated 8 Khelo India State Centres of Excellence across India in the presence of State Sports Ministers.
- Ministry is set to upgrade eight Khelo India State Centres of Excellence at an estimated cost of **Rs. 95.19 crores**.
- The Sports Ministry is all set to establish Khelo India State Centres of Excellence (KISCE) under the ministry's flagship, Khelo India Scheme to enhance India's Olympic performance.
- One KISCE will be identified in each state and union territory, with an effort to create a robust sporting ecosystem in the entire country.

88. Answer: a

Explanation:

The correct answer is 1962.

★ Key Points

- National Integration Council was established in the **year 1961**.
- Its first meeting took place in 1962 .

★ Additional Information

- The National Integration Council was established by the then Prime Minister Jawaharlal Nehru to address the problems of communalism and regionalism in India.
- The National Integration Council is an extra-constitutional body.
- The Prime Minister is the chairman of the council.
- The function of the council is to examine the problem of national integration in every aspect and make necessary recommendations to deal with it.

89. Answer: c

Explanation:

The correct answer is Indus.

★ Key Points

- Diemer-Bhasha Dam is a dam on the **River Indus** between Kohistan district.
- It is a **concreted-filled gravity dam**.
- It is scheduled to be finished by **2027**.
- Pakistan's first green bond was issued to fund the dam, raising **USD 500 million** by May 2021.

★ Additional Information

- Highest Dam in India

- **Tehri Dam(Uttarakhand)**
 - Height: 260.5 meters
 - Length: 575 meters
 - River: Bhagirathi River
- **Longest Dam in India**
- **Hirakud Dam (Odisha)**
 - Total Length: 25.79 km (16.03 mi)
 - Length of Main Dam:4.8 km (3.0 mi)
 - River: Mahanadi
- **Oldest Dam in India**
- **Kallanai Dam(Tamil Nadu)**
 - River: Kaveri

90. Answer: a

Explanation:

The correct answer is Sasthamkotta Lake.

- There are three wetlands in Kerala:
 - Ashtamudi Wetland
 - **Sasthamkotta lake**
 - Vembanad Kol Wetland

★ Additional Information

- Currently, in India, there are 49 wetlands .
- Khijadia Wildlife Sanctuary in Gujarat and Bakhira Wildlife Sanctuary in Uttar Pradesh were announced as Ramsar sites in 2022.
- Wetland:
 - Wetlands are marshy areas.
 - Wetlands are also called sponges of earth.
 - Wetlands absorb water from floods.
 - The biodiversity is found near wetlands.
 - World Wetland Day: 2 February.

- Ramsar:
 - Ramsar is a city of Iran.
 - Ramsar convention was signed in 1971.
-

91. Answer: c

Explanation:

The correct answer is P Chidambaram.

★ Key Points

- P. Chidambaram is the author of the book
 - **Speaking Truth to Power: My Alternative View,**
 - Fearless in Opposition: Power and Accountability,
 - Standing Guard: A Year in Opposition
- Palaniappan Chidambaram is the former Finance and Home Minister of India and a member of the Rajya Sabha from Maharashtra.

★ Additional Information

- **Arun Shourie** is the author of the book "Worshipping False Gods".
 - Subramanian Swamy has come out with a book 'Human Rights and Terrorism in India'.
-

92. Answer: a

Explanation:

The correct answer is Cricket.

★ Key Points

- The Duckworth-Lewis (DLS) method is used in cricket to calculate the target score for a match interrupted by weather or other circumstances.

- It was created by two Britishers- Frank Duckworth and Tony Lewis.
- The method was formerly known as the Duckworth–Lewis method and it was adopted officially by the ICC in 1999.
- Tony Lewis , one of the men behind the Duckworth–Lewis–Stern method used in weather-affected limited-overs cricket matches passed away in April 2020.

★ Additional Information

Various sports and terms related to them are mentioned below:

prepp

Your Personal Exams Guide

Sport	Term Related
Hockey	Advantage, Back-stick, Bully, Cary, Centre Forward, Centre, Corner, Dribble, Flick, Free-hit, Goal Line, Blue line, Halfway Line, Hat-trick, Off-side, Red Car, Roll-in, Scoop, Short Corner, Sixteen-yard hit.
Cricket	Boundary, Bowling, Caught, Chinaman, Cover Drive, Crease, Duck, Duckworth-Lewis, Fine Leg, Follow On, Full Toss, Googly, Gully, Hat-trick, Hit-Wicket, In-swing, L.B.W., Leg-break, Leg-bye, Leg Glance, late Cut, maiden over, No Ball, Over, over Pitch, Popping Crease, Run Out, Short Pitch, Silly Point, Slip, Square Leg, Straight Drive, Stumped, Short leg, Spin, Swing, Third-man, Yorker.
Golf	Bogey, Bunker, Caddie, Fairway, Fourball, Greed Holes, Links, Par, Put, Rough, Stymied, Tee.
Football	Bend, Dribble, Dummy, Feint, Free Kick, Header, Red Card, Throwins.
Archery	Target, Bull's Eye.
Swimming	Breast Stroke, Crawl, Butterfly, Freestyle, Back Stroke.
Fencing	Allez, Assault, Black Card, Foil, Saber, Hilt, Jury, Lame.
Basketball	Dunk, Frontcourt, Held Ball, Lay-Up, Pivot, Rebound.

Sport	Term Related
Billiards	Baulk Line, Break, Bolting, Cannon, Cue, Hazard, In-off, Jigger, Long, Jenny, Pot, Scratch, Screw Back, Spot Stroke, Strike.
Baseball	Diamond, Hitter, Home, Pinch, Pitcher Plate, Pullout, Short Stop, Hitter, Batter, Strike, Infield, Outfield, Base, Battery, Bunting, Catcher.
Chess	Bishop, Capture, Castling, Checkmate, En Passant, Gambit, Grand Master, King, Knight, Pawn, Queen, Rook, Stalemate, Sicilian Defence.
Table Tennis	Foil, End line, Late control, Flat hit, Block stroke, Service, Penholder grip, Backspin, Centreline, Half Court, Side spin, Swing stroke, Push Stroke, Rally, Let, Reverse, Top Spin, Drop shot, Lob, Chopped return.
93. Answer: c Volley Ball Explanation:	Antennae, Attack hit, Ace, Base-line, Blocking, Doubling, Foot Fault, Heave, Holding, Jump Set, Lob Pass, Love-All, Point, Quick Smash, Scouting, Service, Spike, Tactical Ball, Volley, Windmill Service.

The correct answer is Amitabh Kant.

★ Key Points

- Amitabh Kant is the present CEO of Niti Aayog .
- He is the author of Branding India - An Incredible Story.
- He is the recipient of the One Globe Award-2016 for leadership in Transforming Governance for the 21st Century.

★ Additional Information

- Niti Aayog :
 - It is a policy **think tank** of the Government of India.
 - It is neither a constitutional body nor a statutory body
 - **The Chairperson is the Prime Minister of India.**
 - **Suman Bery is the Vice-Chairman of NITI Aayog.**
 - NITI Aayog is a policy think tank of the Government of India which replaced **the Planning Commission of India.**
 - It was established with the aim of achieving sustainable development goals with cooperative federalism by fostering the involvement of State Governments in economic policies.

94. Answer: a

Explanation:

The correct answer is Skimming.

★ Key Points

- **Skimming** is a type of fraud where a small electronic device is used to steal debit/credit card information during an authorised banking transaction.
- Skimming is an illegal practice used by identity thieves to capture credit card information from a cardholder surreptitiously.
- Fraudsters often use a device called a skimmer that can be installed at gas pumps or ATM machines to collect card data.
- Some machines act like point-of-sale technology. An acquired card is swiped, and a touchpad allows the user to enter a security code.
- Card users are warned to keep their cards in their sight at all times and to cover the pin pad when inputting security codes at ATMs.

★ Additional Information

- **Phishing** is a fraudulent attempt to obtain sensitive information or data, such as usernames, passwords and credit card details.
- When the user is tricked into downloading a Trojan horse or other malware onto his mobile through SMS is called **Smishing**.

- **Voice phishing or vishing** is the criminal practice of using social engineering over the telephone system to gain access to private personal and financial information from the public for the purpose of financial reward.
-

95. Answer: b

Explanation:

The correct answer is Kamal Nath.

★ Key Points

- The pro-tem Speaker of the **16th Loksabha was Kamal Nath** administered the oath on 4 June 2014 & presided over the election of the Speaker of the Lok Sabha.
- Sumitra Mahajan was elected as its Speaker on **6 June 2014** and would remain in office until the day before the first sitting of the **17 th Lok Sabha**.

★ Additional Information

- The 16th Lok Sabha passed a total of 133 Bills, of which 6% were passed within 30 minutes .
 - The number of Bills that passed within half an hour in the previous Lok Sabha was 26%.
 - This 16th Lok Sabha sat for 331 days (against a 468-day average for all previous full-term Lok Sabhas), and lost 16% of its time to disruptions.
 - In terms of referral of Bills to various committees, the 16th Lok Sabha referred only 25% of the Bills, while the previous House had referred around 70% of the Bills to various panels .
-

96. Answer: c

Explanation:

The correct answer is Atomic.

★ Key Points

- A tokamak
 - It is an experimental machine that uses the energy produced by fusion reactions, with the energy produced by the fusion of atoms being absorbed into the walls of the vessel.
 - Hence, Option 3 is correct.
 - A fusion power plant takes this heat energy to produce steam, which drives turbines to generate electricity as with a conventional power plant.

★ Additional Information

- Nuclear fusion
 - Nuclear fusion is the process in which the nuclei of lighter mass fuse to form heavier nuclei.
 - It occurs only at the temperature of order 10^8 K, at this temperature the nuclei will be in the form of plasma.
 - Tokamak, and ITER are some of the techniques used to achieve nuclear fusion.
 - Nuclear fission does not need the aid of any device to be carried out, **tokamak is not related to nuclear fission** .
 - Nuclear fusion is the process in which the nuclei of lighter mass fuse to form heavier nuclei
 - As the nuclei come close to one another the coulombic force hinders the nuclei to fuse and in order to overcome the coulombic repulsion , the temperature of the surroundings must be in the order of 10^8 K.
 - At a high temperature of order 10^8 K, the material will be in the form of plasma.
 - If the same temperature is produced on earth then artificially nuclear fusion can be carried out.
 - During that process in order to confine the plasma, the technique of tokamak is used to confine the plasma .

97. Answer: b

Explanation:

The correct answer is Japan.

★ Key Points

- Veteran Japanese comic Ken Shimura, who tested positive for the novel coronavirus, **passed away in March 2020** .
- The actor was hospitalised in Tokyo on March 20 after developing a fever and being diagnosed with severe pneumonia.
- Shimura tested positive for COVID-19 on March 23, 2020.
- Shimura was the first prominent entertainment world figure in Japan to test positive for the virus.

★ Additional Information

- Japan: Capital - Tokyo
- Currency - Japanese yen
- Prime Minister - Fumio Kishida

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98. Answer: a

Explanation:

The correct answer is Lord Krishna.

★ Key Points

- Dhanuyatra of Odisha's Bargarh district is dedicated to Lord Krishna.
- In the town of Bargarh in western Odisha, this Dhanu Yatra is performed.
- It is considered the biggest open-air theatrical performance in Asia.
- This is Held either in the month of December or January.

- This festival is organised to celebrate the Independence and victory of the good over the evil.

★ Additional Information

List of important festivals:

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State	List of Indian Festivals
Andhra Pradesh	Dasara, Ugadi, Deccan Festival, Brahmotsavam
Arunachal Pradesh	Reh, Boori Boot, Myoko, Dree, Pongtu, Losar, Murung, Solang, Mopin, Monpa festival
Assam	Ambubachi, Bhogali Bihu, Baishagu, Dehing Patkai
Bihar	Chhath Puja, Bihula
Chhattisgarh	Maghi Purnima, Bastar Dussehra
Goa	Sunburn festival, Ladain, Mando
Gujarat	Navratri, Janmashtami, Kutch Utsav, Uttarayana
Himachal Pradesh	Rakhadumni, Gochi Festival
Haryana	Baisakhi
Jammu and Kashmir	Har Navami, Chhari, Bahu Mela, Dosmoche,
Jharkhand	Karam Utsav, Holi, Rohini, Tusu
Karnataka	Mysore Dasara, Ugadi
Kerala	Onam, Vishu
Madhya Pradesh	Lok-rang Utsav, Tejaji, Khujaraho festival
Meghalaya	Nongkrem festival, Khasis festival, Wangla, Sajibu Cheiraoba
Maharashtra	Ganesh Utsav, Gudi Padva
Manipur	Yaoshang, Porag, Chavang Kut
Mizoram	Chapcharkut Festival
Nagaland	Hornbill festival, Moatsu Festival
Odisha	Rath Yatra, Raja Parba, Nukahai

State	List of Indian Festivals
Punjab	Lohri, Baisakhi
Rajasthan	Gangaur, Teej, Bundi
Sikkim	Losar, Saga Dawa
Tamil Nadu	Pongal, Thaipusam, Natyanjali Festival
Telangana	Bonalu, Bathukamma
Tripura	Kharchi Puja
West Bengal	Durga Puja
Uttaranchal	Ganga Dussehra
Uttar Pradesh	Ram Navmi, Ganga Mahotsav, Navaratri, Khichdi

99. Answer: d

Explanation:

The correct answer is Bharatnatyam.

★ Key Points

- Bharatnatyam dancer Priyadarshini Govind has been conferred with Nritya Kalanidhi Award.
- The award has been presented by the Madras Music Academy for her performance and efforts to propagate the art form.

★ Additional Information

- Bharatnatyam
 - It is one of the eight classical dances of India.
 - It was conventionally performed by Devadasis (girls offered to God in the temple) in Hindu Temples of South India. Thus, it is also known as 'Dasiattam'.

- It was developed in Tanjore and other regions of South India prominently Tamil Nadu, and could possibly be the oldest classical dance form of India (around 2000 years old).
- The Abhinaya Darpana by Nandikesvara is one of the main sources of textual material for the study of the technique and grammar of body movement in Bharatnatyam Dance.
- Bharatnatyam dance is known to be ekaharya, where one dancer takes on many roles in a single performance.

100. Answer: c

Explanation:

The correct answer is Atmaram Pandurang.

★ Key Points

- The Prarthana Samaj was founded in 1867.
- It was founded by Atmaram Pandurang.
- Prarthana Samaj played a very important role in the Maharashtra renaissance.
- It focused on religious and social reform in Maharashtra.
- The mouthpiece called 'Subodh-Patrika' was run by the Prarthana Samaj.
- Veeresalingam Pantulu was the Telugu reformer who encouraged the Prarthana Samaj in South India.

★ Additional Information

- **Jyotirao Govindrao Phule** was an Indian writer, social activist, thinker, and anti-caste social reformer from Maharashtra.
 - He and his wife, Savitribai Phule, were pioneers of women's education in India.
- **Mahadev Govind Ranade** was a distinguished Indian scholar, social reformer and author.
 - He was a founding member of the Indian National Congress (INC)

- **RC Bhandarkar** was one of India's first orientologists, an Indologist whose other notable books are Early History of Deccan, Vaishnavism, Shaivism and Other Minor Religions.

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