

# Prepp

## Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



SSC MTS



SBI PO



BPS



UPTET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

# SSC MTS Previous Year Paper (Held on: 13 July 2022 Shift 3)

Total Time: 1 Hour : 30 Minute

Total Marks: 100

## Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence & Reasoning	25	25	0.25	1
2	Numerical Aptitude	25	25	0.25	1
3	General English	25	25	0.25	1
4	General Awareness	25	25	0.25	1

- 1.) A total of 90 minutes is allotted for the examination.
- 2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.
- 3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

## General Intelligence & Reasoning

1. In a certain code language, 'GOAL' is coded as '917314', and 'PBKS' is coded as '1841321'. How will 'HAMD' be coded in that language? **(+1, -0.25)**

- a. 101356
- b. 101365
- c. 103165
- d. 103156

2. After interchanging the given two signs  $\times$  and  $-$ , what will be the value of the given expression? **(+1, -0.25)**

$$10 + 5 - 6 \div 2 \times 5$$

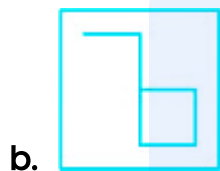
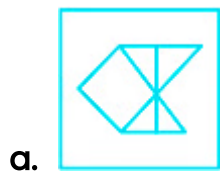
- a. 30
- b. 35
- c. 20
- d. 25

3. In a certain code language, 'he is sick' is written as 'blue red pink', 'he wants apple' is written as 'green violet red', and 'apple is tasty' is written as 'blue green yellow'. How will 'tasty' be written in that language? **(+1, -0.25)**

- a. Violet
- b. Blue
- c. Yellow

d. Pink

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



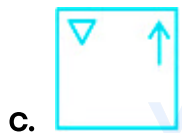
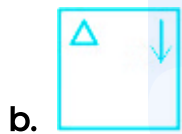
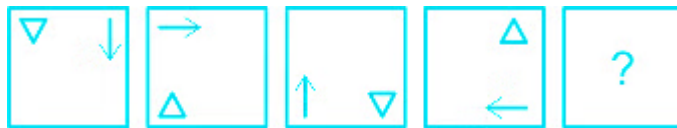
5. Which two numbers need to be interchanged to make the following equation correct? (+1, -0.25)

$$22 - 9 \div 5 + 10 \times 1 = 29$$

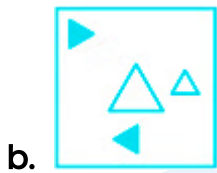
a. 22 and 10

- b. 5 and 1
- c. 10 and 9
- d. 5 and 10

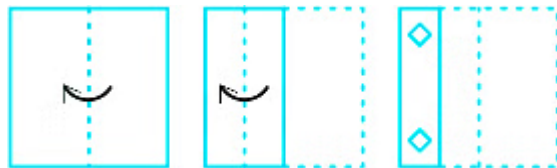
6. Select the figure from the given options that can replace the question mark (?) in the following series. (+1, -0.25)

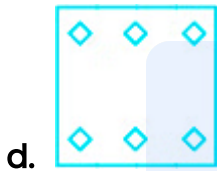
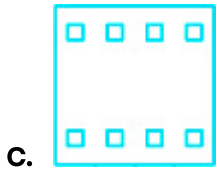
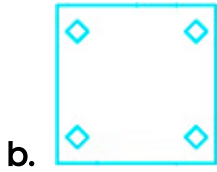
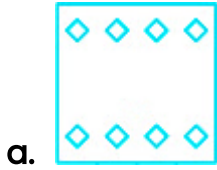


7. Select the correct mirror image of the given figure when the mirror is placed to its right side. (+1, -0.25)



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





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

137, 125, 113, 101, ?

- a. 87
- b. 84
- c. 86
- d. 89

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

ABC2 : ZYX7 :: PQR21 : KJI26 :: MNO11 : ?

- a. NML16
- b. KLM14
- c. NLM14
- d. MKL16

11. Read the given statements and conclusions carefully. Assuming the information given in the statements to be true even if they seem to be inconsistent with commonly known facts, decide which of the given conclusions logically follows from the given statements. (+1, -0.25)

Statements I: Some black are blue.

Statement II: Some blue are red.

Conclusions: Some black are red.

Conclusion II: All red being blue is a possibility.

- a. Only conclusion II follows.
- b. Only conclusion I follows.
- c. Neither conclusion I nor II follows.
- d. Conclusions I and II both follow.

12. Four girls A, B, C, and D are sitting in a row, facing towards the south (but not necessarily in the same order). Four boys P, Q, R and S are sitting in a row, facing towards the face of these girls (but not necessarily in the same order). P and C are diagonally opposite to each other. A is second to the right of C. S is the immediate neighbour of Q and R. C is facing R. (+1, -0.25)



Which of the following pairs of persons facing each other is definitely correct?

- a. DP
- b. BS
- c. AQ
- d. DS

---

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

AY, BX, ?, DV, EU, FT

- a. CV
- b. CW
- c. CE
- d. CU



---

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

347 : 14 :: 122 : 5 :: 244 : ?

- a. 12
- b. 10
- c. 8

d. 14

15. Identify the number that does NOT belong to the following series. (+1, -0.25)

414, 430, 462, 526, 664, 910

a. 462

b. 526


c. 910


d. 664


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



a. 

b. 

c. 

d. 

17. P1, P2, P3, P4, P5, P6 and P7 earn different profits. P1 makes more profit than P5 but less than P3. P6 makes less profit than only two people. P4 makes the lowest profit. P2 makes less profit than P1. P7 makes the most profit. Who earns the third highest profit? **(+1, -0.25)**
- a. P4
  - b. P6
  - c. P3
  - d. P7

18. In a certain code language, 'Heat is waves' is coded as '7 6 @', and 'waves are dramatic not' is coded as '3 4 % 7'. What can be the code for 'Heat' in that language? **(+1, -0.25)**
- a. %
  - b. 4
  - c. @
  - d. 3

19. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster. **(+1, -0.25)**
- GP : KK :: MN : ?
- a. QI
  - b. QJ

c. RI

d. RJ

---

20. Five professors A, B, C, D and E are sitting in a row facing the North (not necessarily in the same order). A is second to the left of D. Only two professors are sitting between C and E. No professor is sitting to the right of E. (+1, -0.25)

How many professors are sitting to the left of D?

a. 3

b. 0

c. 2

d. 1

---

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

(8, 12, 48)

(6, 18, 54)

a. (6, 12, 48)

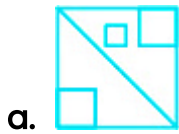
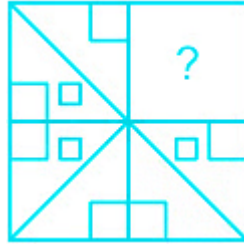
b. (4, 8, 12)

c. (6, 8, 30)

d. (4, 8, 16)

---

22. Select the figure from the options that can replace the question mark (?) (+1, -0.25) and complete the pattern (rotation is NOT allowed).



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

**Statements:**

- I. No R is S.
- II. All X are R.

**Conclusions:**

- I. Some R are X.
  - II. Some S are X.
  - III. All X are S.
- a. Only conclusion III follows
  - b. Only conclusion I follows
  - c. None of the conclusions follow
  - d. Only conclusion II follows
- 

24. In a certain code language, '321' means 'hot branded milk', '653' means 'nice hot day', '985' means 'day and night', then what is the code for 'nice' in the same code language? (+1, -0.25)
- a. 9
  - b. 3
  - c. 5
  - d. 6
- 

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

PRA : SUZ :: GOR : ?

- a. JRU
- b. JSU
- c. JRQ

d. JSH

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## Numerical Aptitude

26. The average of 20 numbers is 36. If each number is increased by 4, then what will be the new average? (+1, -0.25)
- a. 36
  - b. 44
  - c. 46
  - d. 40
- 
27. Ketan and Kunal can complete a job together in 7 days. Kunal is  $\frac{7}{4}$  times as efficient as Ketan. In how many days can Kunal alone complete the job? (+1, -0.25)
- a. 12 days
  - b. 14 days
  - c. 10 days
  - d. 11 days
- 
28. The marked price of a watch was ₹96,000. A man bought the same watch for ₹67,584 after getting two successive discounts. If the first discount was of 12%, what was the quantum of the second discount? (+1, -0.25)
- a. 20%
  - b. 15%
  - c. 10%



d. 25%

---

29. If the length of one side of a rectangle is twice that of the other side, and its perimeter is 54 cm, then what is the length of the longer side of this rectangle? **(+1, -0.25)**

a. 14 cm

b. 9 cm

c. 27 cm

d. 18 cm

---

30. A sum of money, invested at a certain rate of simple interest per annum, amounts to ₹720 in 4 years and to ₹800 in 5 years. The sum invested is: **(+1, -0.25)**

a. ₹400

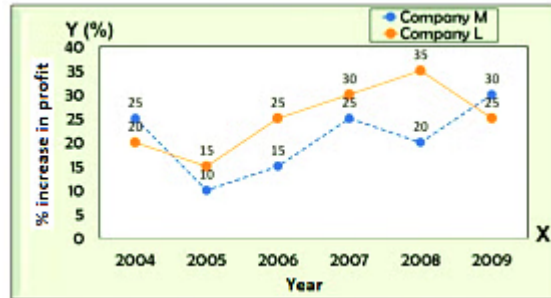
b. ₹600

c. ₹500

d. ₹360

---

31. The following graph shows the percentage rise in the profits of two companies over the years. **(+1, -0.25)**



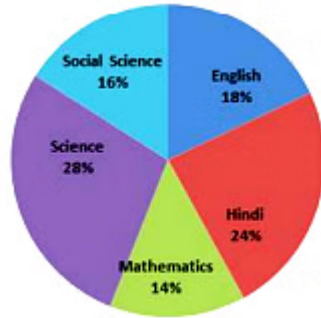
What is the average of the percentage increases in the year-to-year profit of Company M over all the given years, taken together? [Give your answer correct to the nearest integer value.]

- a. 24%
- b. 20%
- c. 25%
- d. 21%

32. Find the amount payable on maturity if ₹20,00,000 is invested at 12% per annum for  $\frac{3}{2}$  years and interest is compounded half-yearly. (+1, -0.25)

- a. ₹23,00,832
- b. ₹23,82,032
- c. ₹24,00,000
- d. ₹23,00,000

33. The following pie chart shows the share of the marks scored by Rahul in an examination in each of 5 different subjects -English, Hindi, Mathematics, Science and Social Science – as percentages of the total marks scored by Rahul in all the 5 subjects taken together. (+1, -0.25)



What is the central angle showing the shares of the marks in Hindi and Social Science, taken together?

- a.  $186^\circ$
- b.  $196^\circ$
- c.  $144^\circ$
- d.  $172^\circ$

34. A man buys a watch for ₹250 and sells it for ₹300. Find his profit percentage. (+1, -0.25)

- a. 20%
- b. 25%
- c. 15%
- d. 10%

35. Two vessels of equal capacity, and both completely filled, contain mixtures of milk and water in the ratio of 5 : 1 and 6 : 5, respectively. Both the mixtures are now mixed thoroughly. What is the ratio of milk to water in the new mixture so obtained? (+1, -0.25)

- a. 105 : 67
- b. 57 : 41
- c. 91 : 41
- d. 28 : 43

---

36. A certain sum is divided between four people in the ratio 3 : 4 : 7 : 8, (+1, -0.25)  
respectively. If the amount received by D is ₹408 more than the amount received by B, what is the total amount received by C and D?

- a. ₹1,630
- b. ₹1,510
- c. ₹1,610
- d. ₹1,530

---

37. Akbar can complete a piece of work alone in 12 days, while Anthony can (+1, -0.25)  
complete the same work alone in 20 days. If they work on alternate days with Anthony starting the work, then in how many days can they complete the whole work?

- a. 15 days
- b. 16 days
- c.  $14\frac{4}{5}$  days
- d.  $15\frac{1}{5}$  days

38. A train can cross a 1200-metre-long bridge completely in 16 seconds. It can cross a 1600-metre-long bridge completely in 20 seconds. What is the speed of the train? (+1, -0.25)

- a. 360 km/h
- b. 450 km/h
- c. 540 km/h
- d. 270 km/h

39. There are 45 students in a hostel. If the number of students increases by 5, the total expenses of the mess increase by ₹30 per day while the average daily expenditure per head diminishes by ₹2. Find the original total daily expenditure of the mess. (+1, -0.25)

- a. ₹1,170
- b. ₹1,710
- c. ₹1,200
- d. ₹1,250

40. A person uses a rectangular metallic sheet of 45 m × 30 m for making an open box. From each corner of the sheet he cut offs a square. If the length of one side of each of these squares is 10 m, then what will be the volume of the box (in m<sup>3</sup>)? (+1, -0.25)

- a. 5000
- b. 4500

- c. 7000
  - d. 2500
- 

41. In a class, the average weight of 4 boys is 50 kg and the average weight of 4 girls is 40 kg. What is the average weight of all the 8 students taken together? (+1, -0.25)

- a. 44 kg
  - b. 48 kg
  - c. 45 kg
  - d. 42 kg
- 

42. The following table shows the number of songs sung by 6 different singers and uploaded on a streaming website. (+1, -0.25)

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Singer	Songs
S1	20
S2	25
S3	15
S4	10
S5	30
S6	20

The average number of views per song for S1, S2 and S3 is 100. The average number of views per song for S4, S5 and S6 is 50. What is the total number of views for all the songs sung by all of the 6 different singers taken together?

- a. 8500
- b. 9000
- c. 9500
- d. 8000

43. A man walks at 6 m/sec and reaches his destination in 20 minutes. A woman covers the same distance in 1.2 hours. What is the speed of the woman (in km/h)? (+1, -0.25)

- a. 5
- b. 2
- c. 6
- d. 1

---

44. Find the LCM of 63, 91 and 133. (+1, -0.25)

- a. 16561
- b. 16651
- c. 11561
- d. 15561

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45. The price of onion increases by 12.5%. The consumption of onion also increases by 12.5%. What is the approximate percentage increase in the expenditure on account of the purchase of onions? (+1, -0.25)

- a. 29.12%
- b. 24.82%
- c. 28.44%
- d. 26.56%



46. The cost price of a saree to a person X was ₹100. Person X sells the saree to person Y at a profit of 10% and person Y then sells it to person Z at a loss of 10%. How much does person Z pay for the saree? (+1, -0.25)

- a. ₹100
- b. ₹99
- c. ₹101
- d. ₹90

47. The value of  $(82^2 + 18 \times 26) \div 16$  is: (+1, -0.25)

- a. 451.8
- b. 444.3
- c. 449.5
- d. 447.1

48. The length and the breadth of a rectangle are increased by 15% and 10%, respectively. What is the percentage increase in the area of the rectangle? (+1, -0.25)

- a. 25%
- b. 26.5%
- c. 27.5%
- d. 26%

49. Thrice the length of the diameter of a circle is 10 cm less than its circumference. What is the radius of the circle? [Use  $\pi = \frac{22}{7}$ ] (+1, -0.25)
- a. 28 cm
  - b. 14 cm
  - c. 70 cm
  - d. 35 cm

50. The value of  $14\frac{4}{9} + 16\frac{5}{27} + 2\frac{5}{54}$  is: (+1, -0.25)
- a.  $32\frac{17}{18}$
  - b.  $32\frac{13}{18}$
  - c.  $31\frac{13}{18}$
  - d.  $32\frac{11}{18}$

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## General English

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

The pirates will try to \_\_\_\_\_ the gold ornaments.

- a. cease
- b. seize
- c. slice
- d. steel

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

One who collects coins

- a. Bibliophile
- b. Enthusiast
- c. Philatelist
- d. Numismatist

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

I may sound crazy but I am not an imbecile.

- a. Credible
- b. Prudent
- c. Dunce

d. Sage

---

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

Rescuers used a special device for finding people \_\_\_\_\_ in collapsed buildings.

- a. conquered
  - b. trapped
  - c. exceeded
  - d. blossomed
- 

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

If nature \_\_\_\_\_ to degrade, the world's economic output will suffer sooner or later.

- a. Continues
  - b. Continue
  - c. Continued
  - d. continuing
- 

56. Select the option that will improve the underlined part of the given (+1, -0.25)

sentence. In case no improvement is needed, select 'No improvement required'.

He pays me six dollars the month of this house.

- a. No improvement required
  - b. an month for these
  - c. a month over this
  - d. a month for this
- 

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

Fatal

- a. Luminous
  - b. Restorative
  - c. Serene
  - d. Deadly
- 

58. Select the most appropriate synonym of the underlined word from the given sentence. (+1, -0.25)

He leaned left, bringing the blunt side of his sword up flat against his palm.

- a. sharp
  - b. dull
  - c. timid
  - d. keen
-

59. Select the INCORRECTLY spelt word.

(+1, -0.25)

- a. Accede
- b. Accost
- c. Abstruce
- d. Abnegation

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

(+1, -0.25)

A large bundle bound for storage or transport

- a. Antagonist
- b. Belligerent
- c. Bale
- d. Apiary

61. Select the option that will improve the underlined part of the given sentence. In case no improvement is needed, select 'No improvement required'.

(+1, -0.25)

She was stuck in his imagination for many a hour as a force to be reckoned with.

- a. his imagination for many hour as a force
- b. his imagination for many an hour as a force
- c. his imagination for many an hours as a force

d. No improvement required

---

62. Select the most appropriate meaning of the underlined idiom. (+1, -0.25)

Does my name ring a bell for you?

- a. To sound familiar
  - b. To be very frightened
  - c. To take advantage
  - d. To mock someone
- 

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

The laws of nature are unbiased, ensuring that each person benefits from its bounties.

- a. No substitution required
  - b. were unbiased
  - c. is unbiased
  - d. was unbiased
- 

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

How the students approach / education today has / altered significant.

- a. altered significant
  - b. education today has
  - c. No error
  - d. How the students approach
- 

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

Kick someone when they are down

- a. To create a disturbance deliberately
  - b. To reject or disown friends
  - c. To be angry with or disappointed in someone
  - d. To cause further trouble to someone already in a difficult situation
- 

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

- a. Definitely
  - b. Definately
  - c. Defenately
  - d. Difinately
- 

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

I am planning a get together \_\_\_\_\_ Monday.

- a. at



- b. upon
  - c. along
  - d. on
- 

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

Vicious

- a. Influential
  - b. Gentle
  - c. Privileged
  - d. Poor
- 

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

All the problems occurred / because she does not / hear my words to follow the instructions.

- a. because she does not
  - b. All the problems occurred
  - c. No error
  - d. hear my words to follow the instructions.
-

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

I like reading fictional stories besides write poems.

- a. No error
- b. fictional stories besides
- c. write poems
- d. I like reading

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

No matter how \_\_\_\_\_ (1) \_\_\_\_\_ time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

Select the most appropriate option to fill in blank No. (1)

- a. many
- b. great
- c. more
- d. much

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

No matter how \_\_\_\_\_ (1) \_\_\_\_\_ time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

Select the most appropriate option to fill in blank No. (2)

- a. devote
- b. promote
- c. assess
- d. proceed

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

No matter how \_\_\_\_\_ (1) \_\_\_\_\_ time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

Select the most appropriate option to fill in blank No. (3)

- a. some

- b. any
- c. others
- d. few

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

No matter how \_\_\_\_\_ (1) \_\_\_\_\_ time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

Select the most appropriate option to fill in blank No. (4)

- a. kingdoms
- b. populations
- c. creatures
- d. lives

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

No matter how \_\_\_\_\_ (1) \_\_\_\_\_ time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for

relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

Select the most appropriate option to fill in blank No. (5)

- a. have
- b. lest
- c. let
- d. get



Your Personal Exams Guide

## General Awareness

76. Small Industries Development Bank of India (SIDBI) is regulated by \_\_\_\_\_ ( +1, -0.25)

- a. Reserve Bank of India
- b. Indian Bank
- c. State Bank of India
- d. ICICI Bank

77. Pattadakal dance festival is organized in which state of India? ( +1, -0.25)

- a. Manipur
- b. Assam
- c. Jharkhand
- d. Karnataka

78. As per the Preamble of the Constitution of India, India is a/an \_\_\_\_\_. ( +1, -0.25)

- a. oligarchy
- b. monarchy
- c. republic
- d. aristocracy

79. Which of the following universities was founded by Kumaragupta, the ruler of the Gupta dynasty? (+1, -0.25)

- a. Nalanda University
- b. Delhi University
- c. Pune University
- d. Taxila University

80. Manika Batra is associated with which sport? (+1, -0.25)

- a. Table Tennis
- b. Badminton
- c. Wrestling
- d. Boxing

81. According to the Constitution of India, there shall be a Comptroller and Auditor General of India who shall be appointed by the \_\_\_\_\_. (+1, -0.25)

- a. Chief Justice of India
- b. President of India
- c. Prime Minister of India
- d. Attorney General of India

82. Khajuraho temple in Madhya Pradesh is an example of \_\_\_\_\_ style of temple architecture. (+1, -0.25)

- a. Dravida
- b. Vesara
- c. Nagara
- d. Hoysala

83. When a cell divides by meiosis it produces \_\_\_\_\_ new cells. (+1, -0.25)

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

84. \_\_\_\_\_ is the largest tropical rainforest in the world. (+1, -0.25)

- a. Amazon
- b. Cango
- c. Sahara
- d. Prairies

85. The Inland Vessels Bill, 2021 is associated with the Ministry of \_\_\_\_\_. (+1, -0.25)



- a. Jal Shakti
  - b. Civil Aviation
  - c. Home Affairs
  - d. Ports, Shipping and Waterways
- 

86. What was the original name of Swami Vivekananda? (+1, -0.25)

- a. Mula Sankara
  - b. Narendranath Dutta
  - c. Vardhamana
  - d. Nrusimha Bhan
- 

87. Limestone, chalk and marble are different forms of \_\_\_\_\_. (+1, -0.25)

- a. calcium carbonate
  - b. sodium carbonate
  - c. potassium carbonate
  - d. magnesium carbonate
- 

88. Which TMC candidate won the Ballygunge (West Bengal) by-poll election in April 2022? (+1, -0.25)

- a. Babul Supriyo
- b. Amit Shah

- c. Mamata Banerjee
  - d. Derek O'Brien
- 

89. Which of the following states has the highest reserves of haematite ore in India? (+1, -0.25)

- a. Tamil Nadu
  - b. Odisha
  - c. Rajasthan
  - d. Maharashtra
- 

90. Alarnel Valli is associated with which classical dance of India? (+1, -0.25)

- a. Manipuri
  - b. Sattriya
  - c. Kathak
  - d. Bharatanatyam
- 

91. 'Wings of Fire' is a famous autobiography of which Indian scientist? (+1, -0.25)

- a. Homi J Bhabha
- b. CV Raman
- c. APJ Abdul Kalam
- d. Vikram Sarabhai

92. In its longitudinal extent, the Himalaya consists of \_\_\_\_\_ parallel ranges. (+1, -0.25)

- a. three
- b. five
- c. four
- d. two

93. Pulakesin I was the founder of \_\_\_\_\_ dynasty of South India. (+1, -0.25)

- a. Chera
- b. Chalukya
- c. Chola
- d. Pandya

94. Which of the following cell organelles help to keep the cell clean by digesting any foreign material as well as worn-out cell organelles? (+1, -0.25)

- a. Mitochondria
- b. Ribosome
- c. Lysosome
- d. Vacuole

95. Who among the following is a famous tennis player? (+1, -0.25)

- a. Mahesh Bhupathi
  - b. Milkha Singh
  - c. Neeraj Chopra
  - d. TC Yohannan
- 

96. The number of live births per thousand persons in a year is called (+1, -0.25)

-----

- a. growth rate
  - b. fertility rate
  - c. death rate
  - d. birth rate
- 

97. According to the Socio-Economic Census 2015, which state has the largest population of households with 'destitute / living on alms'? (+1, -0.25)

- a. Chhattisgarh
  - b. Bihar
  - c. Tamil Nadu
  - d. Odisha
- 

98. MS Subbulakshmi was a famous \_\_\_\_\_ singer of India. (+1, -0.25)

- a. Jazz

- b. Carnatic
  - c. Hiphop
  - d. Rock
- 

99. Mangal Pandey was hanged to death for attacking British officers in Barrackpore on \_\_\_\_\_ ( +1, -0.25)

- a. 21 March 1857
  - b. 23 March 1857
  - c. 31 March 1857
  - d. 29 March 1857
- 

100. Pandit Birju Maharaj who passed away in January 2022 was related with which classical dance of India? ( +1, -0.25)

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

## Answers

1. Answer: d

### Explanation:

The alphabets and their positions are:

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

For 'GOAL' is coded as '917314'

$$\begin{array}{cccc}
 G & O & A & L \\
 7 & 15 & 1 & 12 \\
 +2 & +2 & +2 & +2 \\
 \downarrow & \downarrow & \downarrow & \downarrow \\
 9 & 17 & 3 & 14
 \end{array}$$

And 'PBKS' is coded as '1841321'

$$\begin{array}{cccc}
 P & B & K & S \\
 16 & 2 & 11 & 19 \\
 +2 & +2 & +2 & +2 \\
 \downarrow & \downarrow & \downarrow & \downarrow \\
 18 & 4 & 13 & 21
 \end{array}$$

Similarly for the word 'HAMD'

$$\begin{array}{cccc}
 H & A & M & D \\
 8 & 1 & 13 & 4 \\
 +2 & +2 & +2 & +2 \\
 \downarrow & \downarrow & \downarrow & \downarrow \\
 10 & 3 & 15 & 6
 \end{array}$$

Thus, the 'HAMD' will be coded as '103156'.

Hence, the correct answer is 'option 4'.

## 2. Answer: c

### Explanation:

BODMAS Rule:

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

Given expression is  $10 + 5 - 6 \div 2 \times 5$ .

Interchanging the two signs  $\times$  and  $-$ , we get,

$$10 + 5 \times 6 \div 2 - 5.$$

Using BODMAS:

$$10 + 5 \times \underline{6 \div 2} - 5.$$

$$= 10 + \underline{5 \times 3} - 5.$$

$$= \underline{10 + 15} - 5.$$

$$= \underline{25 - 5} = 20.$$

Hence, the correct answer is "Option 3".

3. Answer: c

Explanation:

According to the given statements:

he is sick → blue red pink

he wants apple → green violet red

apple is tasty → blue green yellow

Thus, the word 'tasty' is coded as 'Yellow'.

Hence, the correct answer is 'option 3'.


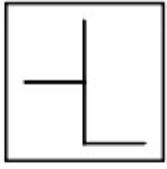

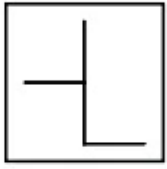




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4. Answer: c

Explanation:

According to the given information,



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

Hence, the correct answer is "Option 3."

**5. Answer: c**

**Explanation:**

BODMAS Table:

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

Given:  $22 - 9 \div 5 + 10 \times 1 = 29$

Now, interchanging the numbers given in the options:

Option 1: 22 and 10

After Interchanging 22 and 10, we get,

$$\begin{aligned}
 &10 - 9 \div 5 + 22 \times 1 \\
 &= 10 - \underline{9 \div 5} + 22 \times 1 \\
 &= 10 - 1.8 + \underline{22 \times 1} \\
 &= \underline{10} - 1.8 + \underline{22} \\
 &= \underline{32} - 1.8 \\
 &= 30.2 \neq 29
 \end{aligned}$$

Option 2: 5 and 1

After Interchanging 5 and 1, we get,

$$\begin{aligned}
 &22 - 9 \div 1 + 10 \times 5 \\
 &= 22 - \underline{9 \div 1} + 10 \times 5 \\
 &= 22 - 9 + \underline{10 \times 5} \\
 &= \underline{22} - 9 + \underline{50} \\
 &= \underline{72} - 9
 \end{aligned}$$

$$= 63 \neq 29$$

Option 3: 10 and 9

After Interchanging 10 and 9, we get,

$$22 - 10 \div 5 + 9 \times 1$$

$$= 22 - \underline{10 \div 5} + 9 \times 1$$

$$= 22 - 2 + \underline{9 \times 1}$$

$$= \underline{22} - 2 + 9$$

$$= \underline{31} - 2$$

$$= 29 = 29.$$

Option 4: 5 and 10

After Interchanging 5 and 10, we get,

$$22 - \underline{9 \div 10} + 5 \times 1$$

$$= 22 - 0.9 + \underline{5 \times 1}$$

$$= \underline{22} - 0.9 + 5$$

$$= \underline{27} - 0.9$$

$$= 26.1 \neq 29$$

So, after interchanging 10 and 9 the following equation will be correct.

Hence, the correct answer is "Option 3".

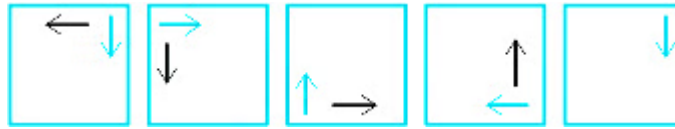
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## 6. Answer: d

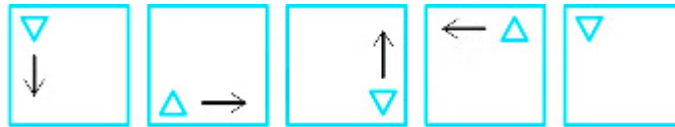
**Explanation:**

The logic followed here is:

Step I: The arrow moves  $90^{\circ}$  in the anticlockwise direction and is shifted 1 place previously.



Step II: The triangle moves vertically and shifted from one place to the next.



So, the final series will be:

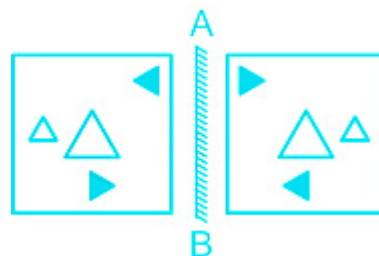


Hence, the correct answer is "Option 4".

**7. Answer: b**

**Explanation:** Your Personal Exams Guide

The correct mirror image when placed on AB line is:



In option 1, the rightmost triangle inverts itself, which is incorrect. Thus, option 1 is incorrect.

In option 2, the parts of the figure are exactly opposite to the parts of the given figure, representing a mirror image. Thus, option 2 is correct.

In option 3, the black downward arrow changes its direction, which is incorrect. Thus, option 3 is incorrect.

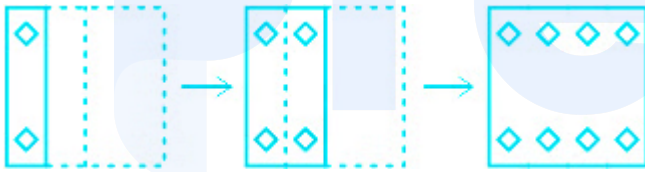
In option 4, the plain small triangle is placed on the left side. Thus, option 4 is incorrect.

Hence, the correct answer is "Option 2".

8. Answer: a

Explanation:

When we unflod the paper we get,



Hence, the correct answer is 'option 1'.

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9. Answer: d

Explanation:

The logic here is :



Thus, the next number will be 89.

Hence, the correct answer is 'option 4'.

10. Answer: a

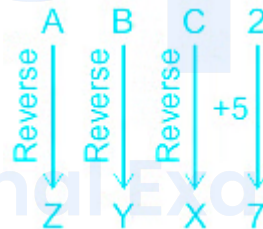
Explanation:

The alphabets and their positions are:

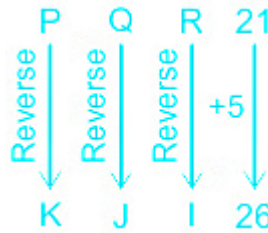
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic here is:

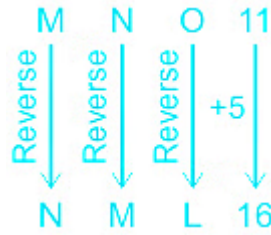
For, ABC2 : ZYX7



For, PQR21 : KJI26



Similarly, for MNO11 : ?



Thus, the next term will be 'NML16'.

Hence, the correct answer is 'option 1'.

**11. Answer: a**

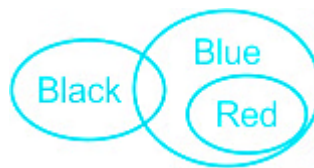
**Explanation:**

The least possible Venn diagram for the given statements is as follows:



Conclusion I: Some black are red - False (there is no relation given between black and red so it is possible, not definite).

Conclusion II: All red being blue is a possibility - True (Some red is definitely blue, and all red being blue is possible)



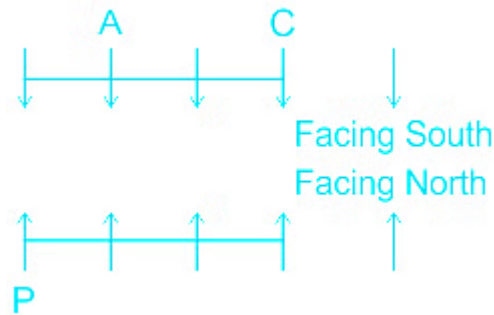
Hence, the correct answer is "Option 1".

**12. Answer: c**

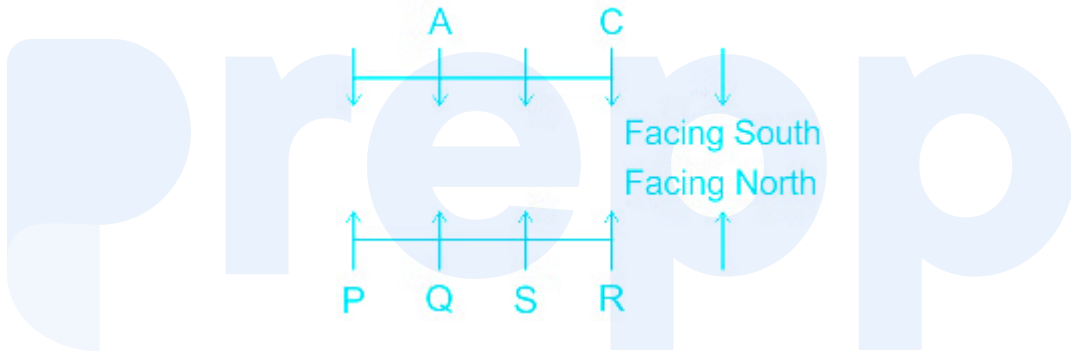
**Explanation:**

Given: Four girls A, B, C, and D are facing south and Four boys P, Q, R and S are facing these girls (means North).

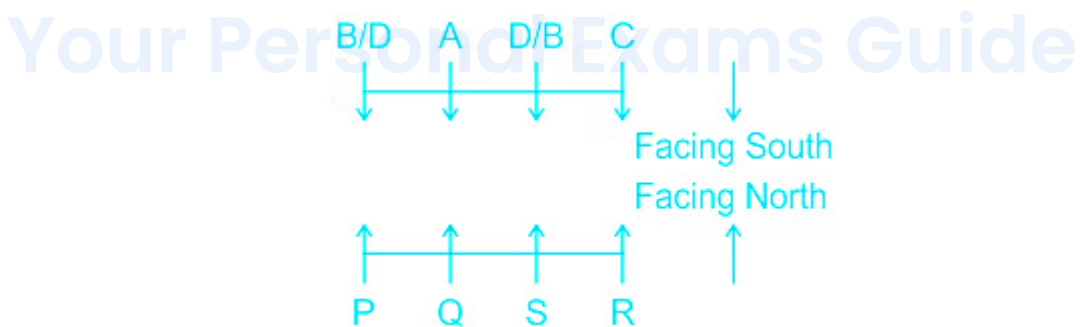
1) P and C are diagonally opposite to each other. A is second to the right of C.



2) S is the immediate neighbour of Q and R. C is facing R.



3) Thus the final sitting arrangement will be:



Here, 'AQ' is the only pair of persons facing each other is definitely correct.

Hence, the correct answer is 'Option 3'.

13. Answer: b



**Explanation:**

The alphabets and their positions are:

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

The logic followed here is:



Thus, the missing term is 'CW'.

Hence, the correct answer is 'option 2'.

14. Answer: b

**Explanation:**

The logic followed here is:

**Sum of the L.H.S numbers = R.H.S number**

Now, for 347 : 14

$$= 347 \Rightarrow 3 + 4 + 7 = 14$$

for, 122 : 5

$$= 122 \Rightarrow 1 + 2 + 2 = 5$$

Similarly, for 244.

$$= 244 \Rightarrow 2 + 4 + 4 = 10$$

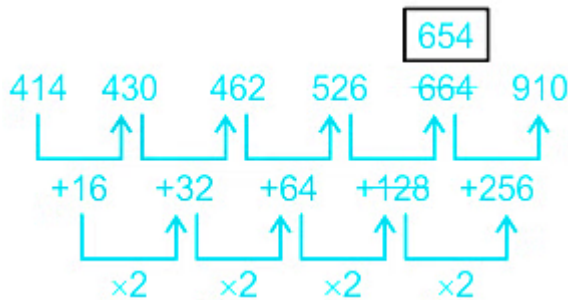
So, 10 is the second term for 244.

Hence, the correct answer is "10".

**15. Answer: d**

**Explanation:**

The logic here is:



Thus, the number **664** does not belong to the series.

Hence, the correct answer is 'option 4'.

16. Answer: b

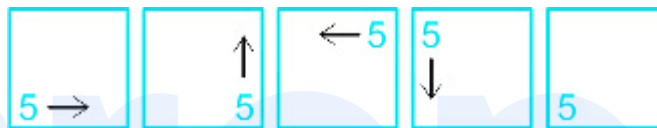
**Explanation:**

The logic here is:

1)

5

The number is moving in the anticlockwise direction and at the corners only.



2) The sign

x

is moving in an anticlockwise direction and it is in the middle of each line.



So, the complete series will be:



Hence, the correct answer is 'option 2'.

17. Answer: b

### Explanation:

From the given information:

1) P6 makes less profit than only two people.

2) P4 makes the lowest profit.

3) P7 makes the most profit.

$P7 > \_\_\_ > P6 > \_\_\_ > \_\_\_ > \_\_\_ > P4$

4) P1 makes more profit than P5 but less than P3.

$P3 > P1 > P5$

5) P2 makes less profit than P1.

$P1 > P2$

from statements 4 and 5:

$P3 > P1 > P5 > P2$

or

$P3 > P1 > P2 > P5$

So, the final arrangement could be possible in two cases:

Case I:  $P7 > P3 > P6 > P1 > P5 > P2 > P4$

Case II:  $P7 > P3 > P6 > P1 > P2 > P5 > P4$

In both cases, P6 earns the third highest profit.

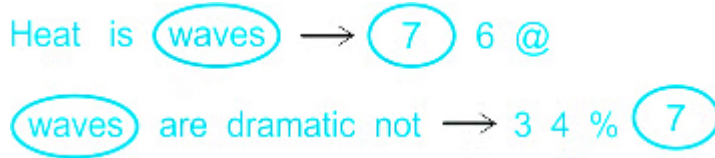
Hence, the correct answer is "Option 2".

---

18. Answer: c

**Explanation:**

According to the given information:



The word 'Heat' can be coded as '6' or '@'.

But, '6' is not given in the options, so go with '@' as the code of 'Heat'.

Thus, the code for the word 'Heat' is '@'.

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

**19. Answer: a**

**Explanation:**

Alphabets and their positional 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 logic followed here is:

For GP : KK



Similarly, for MN : ?



Thus, the next letter-cluster will be 'QI'.

Hence, the correct answer is 'Option 1'.

20. Answer: c

Explanation:

According to the given information, we have:

1) Only two professors are sitting between C and E. No professor is sitting to the right of E.



2) A is second to the left of D.



3) Thus, the final arrangement is



Thus, there are 2 professors are sitting to the left of D.

Hence, the correct answer is 'option 3'.

21. Answer: d

**Explanation:**

The logic followed here is:

Logic: **Second Number**  $\times$  (**First Number**  $\div$  2) = **Third Number**.

Given:

$$(8, 12, 48) \rightarrow 12 \times (8 \div 2) = 48$$

$$(6, 18, 54) \rightarrow 18 \times (6 \div 2) = 54$$

Let's check all the options:

$$1) (6, 12, 48) \rightarrow 12 \times (6 \div 2) = 36 \neq 48$$

$$2) (4, 8, 12) \rightarrow 8 \times (4 \div 2) = 16 \neq 12$$

$$3) (6, 8, 30) \rightarrow 8 \times (6 \div 2) = 24 \neq 30$$

$$4) (4, 8, 16) \rightarrow 8 \times (4 \div 2) = 16$$

Thus, the set '**(4, 8, 16)**' has the same pattern.

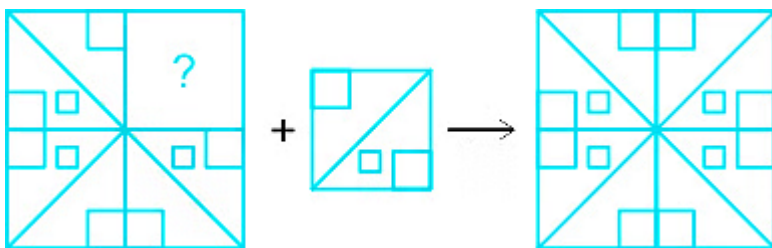
Hence, the correct answer is 'option 4'.

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**22. Answer: d**

**Explanation:**

The logic followed here is:



Hence, the correct answer is "Option 4".

23. Answer: b

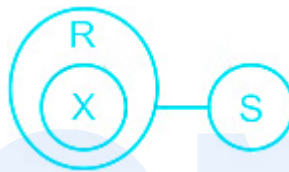
**Explanation:**

Statements:

I. No R is S.

II. All X are R.

The least possible Venn diagram for the given statement is:



Now,

Conclusions:

- I. Some R are X → **Follows** (Since given all X are R and so some R are X).
- II. Some S are X → Does not follow (Since no R is S and all X are R, so No S will be X).
- III. All X are S → Does not follow (Since no R is S and all X are R, so No S will be X).

Thus, **only conclusion I** follows.

Hence, the correct answer is 'option 2'.

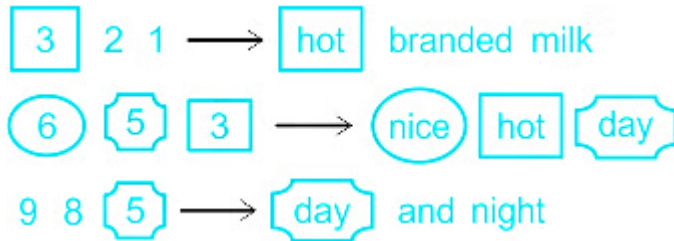
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24. Answer: d

**Explanation:**

The code for the given words is:





Thus, the code for 'nice' is 6.

Hence, the correct answer is 'option 4'.

25. Answer: c

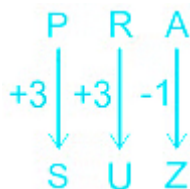
Explanation:

Alphabets and their positional value are:

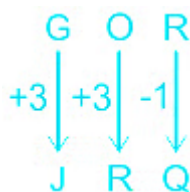
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The logic here is:

For PRA : SUZ



Similarly for GOR : ?



Thus, the code for the given word will be 'JRQ'.

Hence, the correct answer is "Option 3".

---

**26. Answer: d**

**Explanation:**

**Given:**

Average of 20 numbers = 36

**Formula used:**

Average = Sum of values / No. of values

**Calculations:**

Here, Average of 20 numbers = 36

⇒ Average = Sum of 20 numbers / 20

⇒ 36 = Sum of 20 numbers / 20

⇒ Sum of 20 numbers = ( 36 × 20 ) = 720

According to the given Question,

Each number is increased by 4 ⇔ increase in 20 numbers = 20 × 4 = 80

⇒ Sum of 20 numbers when each number is increased by 4 = ( 720 + 80 ) = 800

⇒ Average = 800 / 20 = 40

**Hence, the new Average is 40.**

---

**27. Answer: d**

**Explanation:**

**Given:**

Ketan and Kunal complete job together = 7 days

Kunal =  $7/4$  times as efficient as Ketan

**Formula Used:**

Efficiency = Total work/No. of days

**Calculations:**

Kunal =  $7/4$  times as efficient as ketan

⇒ Efficiency of Kunal: Efficiency of ketan = 7:4

⇒ Total Efficiency =  $(7 + 4) = 11$

⇒ Total work = Efficiency × No. of days =  $11 \times 7 = 77$

Now, Kunal's efficiency = 7

⇒ No. of days kunal takes to complete the work alone = Total work / Efficiency =  $77/7 = 11$  days

Hence, Kunal alone takes 11 days to complete the work.

---

**28. Answer: a**

**Explanation:**

**Given:**

Marked price = 96,000

Selling price = 67,584

**Formula Used:**

$$S.P. = (1 - d_1/100) \times (1 - d_2/100) \times M.P.$$

Where, S.P = Selling price, M.P.= Marked price,  $d_1$  and  $d_2$  = successive discounts respectively

**Calculation:**

Here, Marked price = 96,000 , S.P. = 67,584 ,  $d_1$  = 12%

$$\Rightarrow S.P. = (1 - d_1/100) (1 - d_2/100) M.P.$$

$$\Rightarrow 67,584 = (1 - 12/100) (1 - d_2/100) \times 96,000$$

$$\Rightarrow 67584 = 88/100 \times (1 - d_2/100) \times 96000$$

$$\Rightarrow 0.8 = 1 - d_2/100 \Leftrightarrow d_2/100 = (1 - 0.8) = 0.2$$

$$\Rightarrow d_2/100 = 0.2$$

$$\Rightarrow d_2 = 100 \times 0.2 = 20$$

Hence, the Second discount is 20%.

**29. Answer: d**

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**Explanation:**

Given:

Perimeter = 54 cm

**Formula Used:**

Perimeter of rectangle =  $2(l + b)$

Where,  $l$  = length ,  $b$ = breadth and these are two sides respectively

**Calculation:**

Here, Perimeter = 54 cm

⇒ According to the given Question, Length of the longer side = twice of breadth

Let the breadth be x

Hence, length = 2x

⇒ Perimeter = 2 (l + b)

⇒  $54 = 2(2x + x)$

⇒  $54 = 6x$

⇒  $x = 9$

Hence, length of the longer side =  $2x = (2 \times 9) = 18$  cm

Hence, length of the longer side is 18 cm.

---

30. **Answer: a**

**Explanation:**

**Given:**

Amount in 4 years = Rs 720

Amount in 5 years = Rs 800

**Formula Used:**

$S.I. = (P \times R \times T) / 100$

Amount = ( S.I. + P)

Where, S.I. = Simple Interest, P = Principal, R = Rate of interest, T= Time in years

**Calculation:**

Here, we have ( P + S.I. ) for 4 years = Rs720

(P + S.I.) for 5 years = Rs800

On subtracting the above two equations, we get

⇒ S.I. for 1 year = ( 800 - 720 ) = Rs80

⇒ S.I. for 4 years = 4 × 80 = Rs320

⇒ Amount in 4 years = S.I. + P

⇒ 720 = 320 + P

⇒ P = ( 720 - 320 ) = Rs400.

**The sum invested is Rs. 400**

---

**31. Answer: d**

**Explanation:**

**Given:**

Increase in profit% of two companies M and L

**Formula Used:**

Average = Sum of values/ No. of values

**Calculation:**

Here, we have % increase in profit of company M = 25 in 2004, 10 in 2005, 15 in 2006, 25 in 2007, 20 in 2008, 30 in 2009

⇒ Sum of % increase in profit from 2004 to 2009 = ( 25 + 10 + 15 + 25 + 20 + 30 ) = 125

⇒ Number of years = 6

⇒ Average = 125/6 = 20.83% ≈ 21%

Hence, the average of percentage increase is 21%.

---

### 32. Answer: b

#### Explanation:

Given:

$$P = \text{Rs}20,00,000$$

$$R = 12\% \text{ per annum}$$

$$T = 3/2 \text{ years}$$

Formula Used:

$$\text{C.I.} = P \times (1 + R/100)^t$$

Where, C.I. = Compound Interest, P = Principal, R = Rate of interest, t = time in years

When C.I. is compounded half-yearly, Rate becomes half and time doubles

Calculation:

$$\text{Here, } P = 20,00,000, R = 12\%, T = 3/2 \text{ years}$$

As interest is compounded half-yearly,

$$\Rightarrow \text{Hence, Time doubles itself} = 3/2 \times 2 = 3 \text{ years}$$

$$\Rightarrow \text{Rate becomes half of itself} = 12/2 = 6\%$$

$$\Rightarrow \text{C.I.} = P \times (1 + R/100)^t = 2000000 \times (1 + 6/100)^3$$

$$\Rightarrow \text{C.I.} = 2000000 \times 106/100 \times 106/100 \times 106/100 = 2000000 \times 1191016/1000000$$

$$\Rightarrow \text{C.I.} = 23,82,032$$

Hence, the amount payable on maturity is Rs. 23,82,032

**33. Answer: c**

**Explanation:**

**Given:**

Marks scored by Rahul in 5 different subjects

Pie-chart shows percentage of marks in all the 5 subjects

**Concept used:**

100% represents  $360^\circ$

**Calculation:**

Percentage of Hindi given in pie-chart = 24%

Percentage of Social Science given = 16%

As,  $100\% = 360^\circ$

$$\Rightarrow 24\% = \left(\frac{360}{100}\right) \times 24 = 86.4^\circ$$

$$\Rightarrow \text{central angle of Hindi} = 86.4^\circ$$

$$\Rightarrow 16\% = \left(\frac{360}{100}\right) \times 16 = 57.6^\circ$$

$$\Rightarrow \text{central angle of Social science} = 57.6^\circ$$

$$\Rightarrow \text{Central angle of Hindi and Social science taken together} = (86.4^\circ + 57.6^\circ) = 144^\circ$$

Hence, Central angle of Hindi and Social Science is  $144^\circ$  .

**34. Answer: a**

**Explanation:**



**Given:**

Cost price = Rs250

Selling price = Rs300

**Formula Used:**

Profit = S.P. - C.P.

Profit% = (Profit/C.P.) × 100

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

**Calculation:**

Here, C.P. = Rs250, S.P. =Rs300

⇒ Profit = S.P. - C.P. = (300 - 250) = Rs50

⇒ Profit% = (Profit/C.P.) × 100 = (50/250) × 100 = 20%

Hence, the required profit percentage is 20%.

**35. Answer: c****Explanation:****Given:**

Two vessels of equal capacity

Milk : water in vessel 1 = 5:1

Milk : water in vessel 2 = 6:5

**Calculation:**

Here, milk : water in 1st vessel = 5:1 = 6

milk : water in 2nd vessel =  $6:5 = 11$

But, According to the given Question, the total quantity of both vessels are equal

⇒ Hence, to make it equal multiply 1st vessel by 11 and 2nd vessel by 6

⇒ Now, the new ratio after making equal in capacity,

⇒ 1st vessel  $\Leftrightarrow$  milk : water =  $5 \times 11 : 1 \times 11 = 55 : 11$

⇒ 2nd vessel  $\Leftrightarrow$  milk : water =  $6 \times 6 : 5 \times 6 = 36 : 30$

Now, When both vessels are mixed. The ratio of milk and water in the new mixture

⇒ milk : water =  $(55 + 36) : (11 + 30) = 91 : 41$ .

Hence, new mixture obtained is **91 : 41**.

---

**36. Answer: d**

**Explanation:**

**Given:**

Sum divided between four people in the ratio  $3 : 4 : 7 : 8$  respectively

**Calculation:**

Here, let the amount received by A, B, C and D be  $3x$ ,  $4x$ ,  $7x$  and  $8x$  respectively.

Now, According to the given Question, we have

⇒ D received Rs408 more amount than B

⇒  $(D - B) = 408 \Leftrightarrow (8x - 4x) = 408$

⇒  $4x = 408 \Leftrightarrow x = 102$

Hence, amount received by C =  $7x = 7 \times 102 = 714$

⇒ Amount received by D =  $8x = 8 \times 102 = 816$

⇒ Total amount received by C and D =  $(714 + 816) = \text{Rs}1530$ .

Hence, the total amount received by C and D is Rs. 1530

**37. Answer: d**

**Explanation:**

**Given:**

Akbar completes the work = 12 days

Anthony completes the work = 20 days

**Formula Used:**

Efficiency = Total unit of work/ No. of days

**Calculation:**

Let us assume the total work to be done is 60 units

( you can assume any number, but for the sake of calculation, it is advised to take the L.C.M. of the given numbers. Here the given number are 12 and 20. So, there required L.C.M is 60)

Now, Efficiency of Akbar = Total unit of work/ No. of days =  $60/12 = 5$  unit/day

⇒ Efficiency of Anthony = Total unit of work/ No. of days =  $60/20 = 3$  unit/day

⇒ Total Efficiency =  $(5 + 3) = 8$

Now, in 2 days = 8 units of work will done

⇒ In 7 pairs of days  $(7 \times 2) = 8 \times 7 = 56$  unit of work will be done

⇒ Hence, after 14 days they will do 56 unit of work . But total work to be done is 60 unit

⇒ As, Anthony starts the work and his efficiency is 3 unit/day

Hence, on 15<sup>th</sup> day Anthony will do 3 more unit of work i.e. ( 56+3) =59 unit of work is done

Now, the remaining work will be done by Akbar and Since his efficiency is 5 unit/day

Hence, 1unit will be done in = 1/5th day

⇒Total days = (14 +1 +1/5) days = 15 $\frac{1}{5}$  days.

Hence, the total days required is 15 $\frac{1}{5}$  days

**38. Answer: a**

**Explanation:**

**Given:**

Length of 1st bridge = 1200m and time = 16 seconds

Length of 2nd bridge = 1600m and time = 20 seconds

**Formula Used:**

Distance = Speed × Time

**Calculation:**

Length of the 1st bridge = 1200m and time = 16 s

Distance = Length of the train + Length of the bridge

Now, Distance = Speed × Time

⇒ Length of the train + 1200 = Speed × 16

⇔ Length of the train = ( 16 speed - 1200).....(1)

Now, we have Length of the 2nd bridge = 1600m and time = 20 s

⇒ Distance = Length of the train + Length of the 2nd bridge = Length of the train + 1600

Now, Distance = Speed × 20

⇒ Length of the train + 1600 = 20 speed ( Put the value of Length of the train from equation(1))

⇒ 16 speed - 1200 + 1600 = 20 Speed

⇒ 400 = 4 × speed ⇔ Speed = 100 m/s

⇒ Now, to convert m/s into km/h , we have to multiply the number by 18/5

⇒ 100 m/s = 100 × 18/5 = 360 km/h

Hence, Speed of the train is 360 km/h.

---

39. Answer: a

Explanation:

Given:

No. of students in a hostel = 45

When 5 students increase average daily expenditure per head decreases by Rs 2

Formula Used:

Average = Sum of values/ No. of values

Calculation:

Let, the average expenditure initially was Rsx

⇒ Total expenditure/number of students = Average

⇒ Total expenditure/45 = x

⇒ Total expenditure =  $45x$

Now, when 5 more students joined, total expenditure becomes  $(45x + 30)$

⇒ Now, the average expenditure = Sum of values / No. of values =  $(45x + 30) / (45 + 5) = (45x + 30) / 50$

Now, According to the given Question average daily expenditure diminishes by Rs2

Hence, the average becomes  $(x - 2)$

⇒  $(45x + 30) / 50 = x - 2$

⇒  $45x + 30 = 50x - 100$

⇒  $130 = 5x$

⇒  $x = \text{Rs } 26$

⇒ Original total daily expenditure =  $45 \times 26 = \text{Rs } 1,170$ .

Hence, the original total daily expenditure was Rs 1,170.

---

**40. Answer: d**

**Explanation:**

**Given:**

Dimensions of a rectangular sheet =  $45 \times 30$

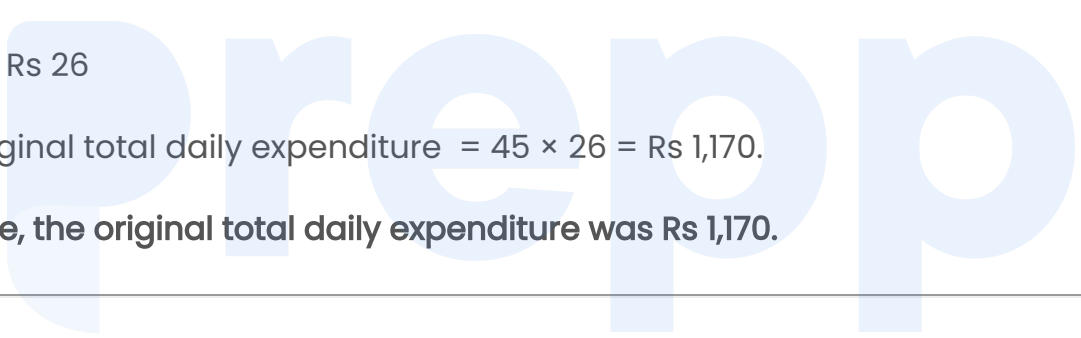
Length of side of square = 10 m

**Formula used:**

Volume =  $l \times b \times h$

Where  $l$  = length

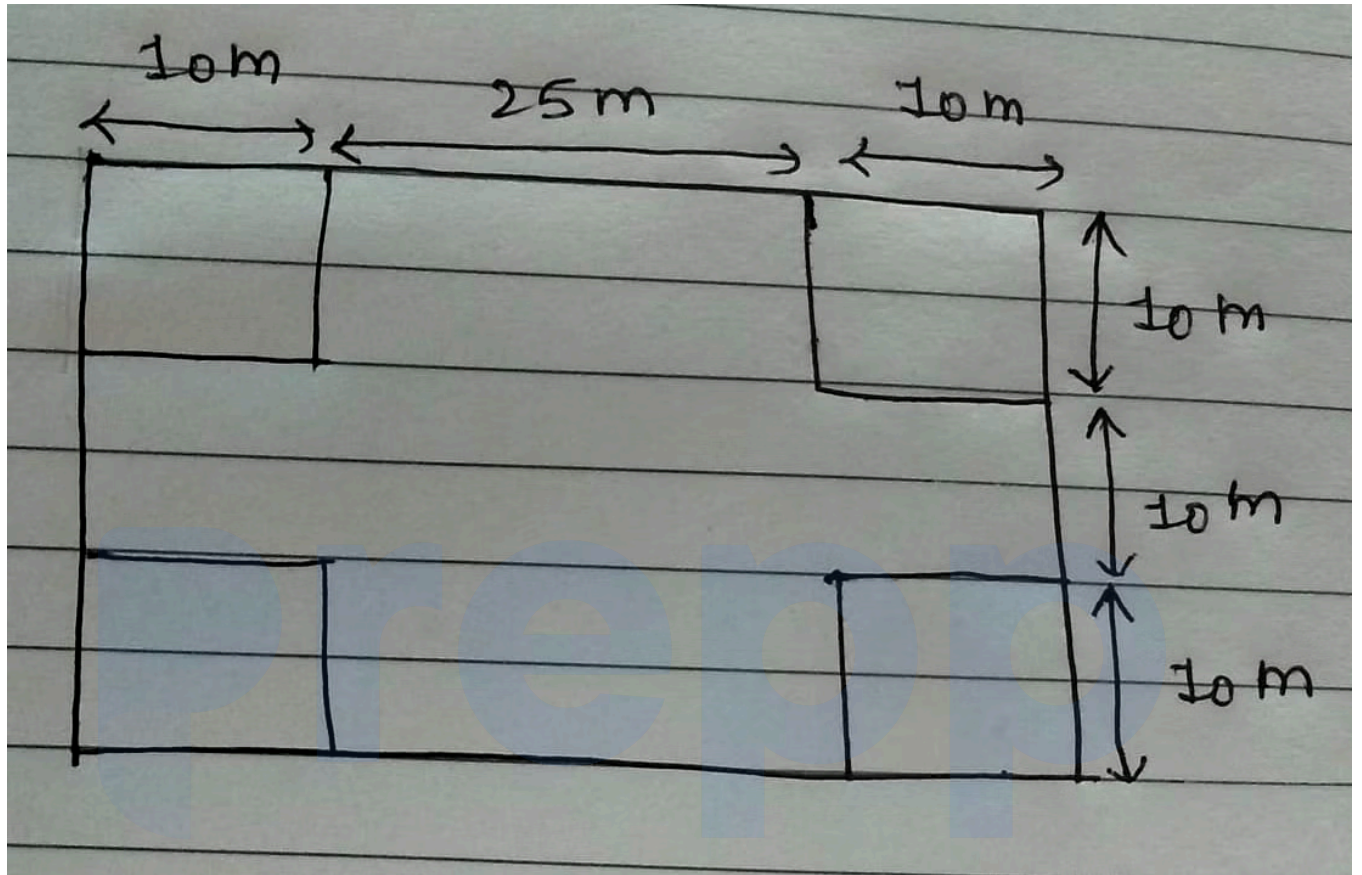
$b$  = breadth



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h = height

Calculation:



As, a square is cut off from each corner

⇒ Hence, 2 squares are cut off from each side

⇒ length =  $45 - 2(10) = 45 - 20 = 25\text{m}$

⇒ breadth =  $30 - 2(10) = 30 - 20 = 10\text{ m}$

⇒ height = side of the square = 10m

⇒ Volume =  $l \times b \times h = 25 \times 10 \times 10 = 2500\text{ m}^3$

Hence, the required volume is  $2500\text{ m}^3$ .

41. Answer: c

### Explanation:

Given:

Average of 4 boys = 50 kg

Average of 4 girls = 40 kg

Formula Used:

Average = Sum of values/ No. of values

Calculation:

Here, we have Average of 4 boys = 50 kg

⇒ Average = Sum of boys/ No. of boys

⇒ 50 = Sum of boys/4

⇒ Sum of 4 boys = 50 × 4 = 200 kg

⇒ Now, we have Average of 4 girls = 40 kg

⇒ Average = Sum of girls/ No. of girls

⇒ 40 = Sum of girls/ 4

⇒ Sum of 4 girls = 40 × 4 = 160 kg

Total sum of 8 students = ( Sum of 4 boys + Sum of 4 girls ) = ( 200 +160 ) = 360 kg

⇒ Average = 360/8 = 45 kg.

Hence, the required Average is 45 kg.

---

42. Answer: b

Explanation:



**Formula Used:**

Average = Sum of values/ No. of values

**Calculation:**

As, average number of views per song for S1, S2 and S3 = 100

Here, no. of songs of S1 = 20

⇒ Average = Sum of values/ No. of songs

⇒  $100 = \text{Sum} / 20 \Leftrightarrow \text{Sum of S1} = 100 \times 20 = 2000$

Now, no. of songs of S2 = 25

⇒ Average = Sum of S2/25

⇒  $100 = \text{Sum of S2}/25 \Leftrightarrow \text{Sum of S2} = 100 \times 25 = 2500$

Now, no. of songs of S3 = 15

⇒  $100 = \text{Sum of S3}/15$

⇒ Sum of S3 =  $100 \times 15 = 1500$

As, average number of views per song for S4, S5 and S6 = 50

Here, no. of songs of S4 = 10

⇒  $50 = \text{Sum of S4}/10$

⇒ Sum of S4 =  $50 \times 10 = 500$

Now, no. of songs of S5 = 30

⇒  $50 = \text{Sum of S5}/30$

⇒ Sum of S5 =  $50 \times 30 = 1500$

Now, no. of songs of S6 = 20

⇒  $50 = \text{Sum of S6}/20$

$$\Rightarrow \text{Sum of } S_6 = 50 \times 20 = 1000$$

$$\Rightarrow \text{Total number of views of all the songs from } S_1 \text{ to } S_6 = (2000 + 2500 + 1500 + 500 + 1500 + 1000) = 9000.$$

Hence, total number of views of all the songs are 9000.

**43. Answer: c**

**Explanation:**

**Given:**

Speed of a man = 6 m/s

Time = 20 minutes

Time taken by woman to cover same distance = 1.2 hours

**Formula Used:**

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

**Calculation:**

Here, Speed of a man = 6m/s

Now, to convert m/s into km/h , multiply the given number by 18/5

$$\Rightarrow 6\text{m/s} = 6 \times 18/5 = 21.6 \text{ km/h}$$

Now, Time = 20 min = 20 /60 h = 1/3 h ( As, 60 minute = 1 hour)

$$\Rightarrow \text{Distance} = \text{Speed} \times \text{Time} = 21.6 \times 1/3 = 7.2 \text{ km}$$

Now, As woman covers same distance = 7.2km, Time taken = 1.2 hours

$$\Rightarrow \text{Speed} = \text{Distance} / \text{Time} = 7.2/ 1.2 = 6 \text{ km/h}$$

Hence, Speed of the woman is 6 km/h.

44. Answer: d

**Explanation:**

**Concept Used:**

L.C.M.= Least Common Multiple of two integers a and b is the smallest positive integer that is divisible by both a and b.

**Calculation:**

Factors of 63, 91, and 133 respectively are,

$$63 = 7 \times 9 \times 1$$

$$91 = 7 \times 13 \times 1$$

$$133 = 7 \times 19 \times 1$$

$\Rightarrow$  L.C.M =  $7 \times 9 \times 13 \times 19 \times 1 = 15561$  (As, 7 is common in all the factors of the given numbers. Hence, we will take 7 only once).

Hence, the required L.C.M IS 15561.

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45. Answer: d

**Explanation:**

**Given:**

Price of onion increases = 12.5%

Consumption of onion increases = 12.5%

**Formula used:**

Expenditure = Price  $\times$  Consumption

**Calculation:**

Let the original price and consumption be Rs100 and 100 kg respectively

⇒ New price of onion after 12.5% increase =  $100 + (100 \times 12.5) / 100 = 100 + 12.5 =$   
Rs112.5

⇒ New consumption of onion after 12.5% increase =  $100 + (100 \times 12.5) / 100 = 100 +$   
12.5 = 112.5 kg

⇒ Original Expenditure = Original Price  $\times$  Original Consumption =  $100 \times 100 = 10000$   
Rs/ kg

⇒ New Expenditure = New Price  $\times$  New Consumption =  $112.5 \times 112.5 = 12656.25$  Rs/kg

⇒ Increase in Expenditure =  $(12656.25 - 10000) = 2656.25$

⇒ % change in Expenditure =  $(\text{Increase in Expenditure} / \text{Original Expenditure}) \times 100$   
 $= (2656.25 / 10000) \times 100 = 26.56\%$

Hence, the percentage change in Expenditure of onion is 26.56%.

---

**46. Answer: b**

**Explanation:**

**Given:**

Cost price of X = Rs100

**Concept Used:**

Final value = Initial value  $(1 + R/100) (1 - R/100)$

Where, R = increment and decrement of Rate successively

**Calculation:**

Here, we have Initial value = Cost price of X = Rs100 , Rate of increment = 10%, Rate of decrement = 10%

$$\Rightarrow \text{Final value} = \text{Initial value} (1+R/100) (1-R/100) = 100 \times (1 + 10/100) \times (1 - 10/100)$$

$$\Rightarrow \text{Final value} = 100 \times 11/10 \times 9/10 = \text{Rs}99.$$

Hence, Z pays Rs.99 for the saree.

**47. Answer: c**

**Explanation:**

Concept used:

BODMAS

B	Brackets in order	(), {}, []
O	Of	of
D	Division	÷
M	Multiplication	×
A	Addition	+
S	Subtraction	-

Calculation:

Here, we have  $(82^2 + 18 \times 26) \div 16$

$$\Rightarrow (6724 + 468) \div 16 = 7192 \div 16 = 449.5$$

Hence, the required value is 449.5.

**48. Answer: b**

**Explanation:**

**Given:**

% increase in length of a rectangle = 15%

% increase in breadth of a rectangle = 10%

**Formula Used:**

Area of a rectangle = Length  $\times$  Breadth

**Calculation:**

Let us assume both the Length and Breadth of a rectangle be 100

Increase in Length is 15% =  $100 + (100 \times 15)/100 = (100 + 15) = 115$

Increase in Breadth is 10% =  $100 + (100 \times 10/100) = (100 + 10) = 110$

Original Area of rectangle = Length  $\times$  Breadth =  $100 \times 100 = 10000$

New Area of rectangle =  $115 \times 110 = 12650$

Increase Area =  $(12650 - 10000) = 2650$

% increase Area =  $(2650/10000) \times 100 = 26.5\%$ .

**Hence, the increased Area of the rectangle is 26.5%.**

**★ Shortcut Trick**

$$A = x + y + \left(\frac{x \times y}{100}\right)$$

A = change in area

x = change in length

y = change in breath

$$x = 15, y = 10$$

$$\Rightarrow +15 + 10\left(\frac{15 \times 10}{100}\right)$$

$$\Rightarrow 26.5$$

$\therefore$  The answer is 26.5%.

---

#### 49. Answer: d

##### Explanation:

Given:

3 Length of the diameter of a circle = Circumference - 10 cm

Formula Used:

Circumference of a circle =  $2\pi r$  cm

Diameter =  $2 \times$  radius

Calculation:

Here, it is given that  $3d = \text{circumference} - 10$  cm

$\Rightarrow$  as diameter =  $2$  radius

$$\Rightarrow 3 \times 2r = 2\pi r - 10$$

$$\Rightarrow 6r = 2 \times \frac{22}{7} \times r - 10$$

$$\Rightarrow \frac{44}{7}r - 6r = 10$$

$$\Rightarrow \frac{2r}{7} = 10 \Leftrightarrow r = 35\text{cm}$$

Hence, the radius of the circle is 35 cm.

50. Answer: b

Explanation:

Calculation:

Here, we have  $14\frac{4}{9} + 16\frac{5}{27} + 2\frac{5}{54}$

$\Rightarrow 130/9 + 437/27 + 113/54$

$\Rightarrow (130 \times 6) + (437 \times 2) + (113 \times 1) / 54 = (780 + 874 + 113) / 54 = 1767 / 54 = 32\frac{13}{18}$

Hence, the required value is  $32\frac{13}{18}$

51. Answer: b

Explanation:

The correct answer is "seize"

★ Key Points

Here let's see the sentence as a whole:

- The pirates will try to **seize** the gold ornaments.

★ Additional Information

Let's learn the meaning of the word with another example:

- **Seize** - to take hold of something suddenly and firmly; to grab something
  - Eg. The thief *seized* her handbag and ran off with it.

52. Answer: d



## Explanation:

The correct answer is "Numismatist" Here let's see the substitution with an example:

### ★ Key Points

- **Numismatist** – a person who collects or studies coins and medals

### ★ Additional Information

Let's learn some other one word substitute:

- **Bibliophile** – a person who collects or has a great love of books
- **Enthusiast** – a person who is very interested in an activity or subject
- **Philatelist** – a person who studies or collects postage stamps

---

## 53. Answer: c

## Explanation:

The correct answer is 'Dunce.'

### ★ Key Points

- Let us see the meaning of IMBECILE :
  - IMBECILE: a stupid person. (मूर्ख व्यक्ति)
- Let us see the **meanings** of the given options:
  - **Credible**: that you can believe. (विश्वसनीय; विश्वास करने योग्य)
  - **Prudent**: sensible and careful when making judgements and decisions; avoiding unnecessary risks. (मूल्यांकन और निर्णय करने में सावधान और विवेकपूर्ण; अनावश्यक खतरों से बचते हुए)
  - **Dunce**: a person who is slow at learning; a stupid person. (एक व्यक्ति जो सीखने में धीमा है; एक मूर्ख व्यक्ति)
  - **Sage**: a profoundly wise person; a person famed for wisdom. (एक गहरा बुद्धिमान व्यक्ति; ज्ञान के लिए प्रसिद्ध व्यक्ति)

- From the meanings of the given words, we can say that the most appropriate synonym of the underlined word in the given sentence is "Dunce ."
  - Hence, the correct answer is Option 3.
- 

**54. Answer: b**

**Explanation:**

The correct answer is "**trapped**"

★ Key Points

Here we will the whole sentence:

- Rescuers used a special device for finding people **trapped** in collapsed buildings.

★ Additional Information

Here let's see the meaning of the given words:

- **Conquered** -to succeed in controlling or dealing with a strong feeling, problem, etc.
  - **Trapped** -to catch and keep or store something
  - **Exceeded** -to be more than a particular number or amount
  - **Blossomed** - to become more healthy, confident or successful
- 

**55. Answer: a**

**Explanation:**

The correct answer is "**continues**"

★ Key Points

Let's see the whole sentence:

- If nature **continues** to degrade, the world's economic output will suffer sooner or later.

★ Additional Information

Let's see the word formation:

- **"Continuing"** is the effort make whatever ongoing into the future but may stop any time and for any reason
  - **"Continued"** refers to picking up where is left and not moving forward and you make it move and keep it going.
- 

56. Answer: d

**Explanation:**

The correct answer is "a month for this"

★ Key Points

Let's see the correct sentence formation:

- He pays me six dollars **a month for this** house.

★ Additional Information

Here we will see the correct word formation:

- **The** is used to refer to specific or particular nouns
  - **A/An** is used to modify non-specific or non-particular nouns
  - **Of** is a preposition that is used to mean pertains to
  - **For** is a preposition of time
- 

57. Answer: d

**Explanation:**

The correct sentence is "**deadly**"

★ Key Points

Here let's learn the meaning of the given word:

- **Fatal** -causing or ending in death
- **Deadly** -causing or likely to cause death

★ Additional Information

Let's learn some other word meanings:

- **Luminous** - that shines in the dark
- **Restorative** -making you feel better, healthier and stronger
- **Serene** - calm and peaceful

---

58. Answer: b

**Explanation:**

The correct answer is "**dull**"

★ Key Points

Here let's learn the meaning of the given word:

- **Dull** - not interesting or exciting; boring

★ Additional Information

We will learn some other word meanings here:

- **Sharp** -having a very thin but strong edge or point; that can cut or make a hole in something easily
- **Timid** -easily frightened; shy and nervous
- **Keen** - very interested, eager, or wanting (to do) something very much

59. Answer: c

### Explanation:

The correct answer is "**Abstruse**"

#### ★ Key Points

Here we will learn the meaning of the correct word:

- **Abstruse** - difficult to understand

#### ★ Additional Information

Let's some new word meanings :

- **Accede** - to agree to a request, demand, etc.
- **Abnegation** - the action of renouncing or rejecting something
- **Accost** - to go up and talk to a stranger in a way that is rude or frightening

---

60. Answer: c

### Explanation:

The correct answer is "**Bale**"

#### ★ Key Points

Here let's learn the word with the help of an example:

- **Bale** - A bale of hay/cloth/paper/cotton

#### ★ Additional Information

Let's see some other word meanings:

- **Antagonist** -one that contends with or opposes another

- **Belligerent** -unfriendly and aggressive
  - **Apiary** - a place where bees are kept
- 

61. **Answer: b**

**Explanation:**

The correct answer is "his imagination for many an hour as a force"

★ Key Points

- The phrase 'many an hour' or 'many a/an [singular noun]' is used to emphasize that **something happened** or **will happen a lot of times** or **for a large amount of time**. It's often used in more **formal** or **poetic** contexts.
- Here we will see the correct sentence:
- She was stuck in **his imagination for many an hour as a force** to be reckoned with.

★ Additional Information

Let's learn the sentence formation:

- It should be "**an**" instead of "**a**"
  - "**A**" goes before words that begin with consonants
  - "**An**" goes before words that begin with vowels
- 

62. **Answer: a**

**Explanation:**

The correct answer is "**To sound familiar**" Let's see the meaning of the given idiom:

★ Key Points

- **Ring a bell (*idiom*)** –To seem familiar, remind one of something, or stimulate an incomplete or indistinct memory. (किसी की याद दिलाना, या एक अपूर्ण या अस्पष्ट स्मृति को प्रेरित करना।)
  - **Eg.** Your description *rings a bell*, but I don't think I've ever been there myself.

★ Additional Information

Let's see some related idioms:

- **If one can help (*idiom*)** – If one is able to prevent or avoid something. Usually used after negative verb constructions.
  - **Eg.** We shouldn't jump to any conclusions, *if we can help* it.

---

63. Answer: a

**Explanation:**

The correct answer is "**No substitution required**" Let's see the meaning of the given word:

★ Key Points

- **Unbiased** – showing no prejudice for or against something; impartial.
  - **Eg.** His assessment of the benefits and drawbacks was *unbiased*

---

64. Answer: a

**Explanation:**

The correct answer is "**altered significant**" Let's see the correct sentence:

★ Key Points

- How the students approach education today has **significantly altered**.

Let's learn the correct formation:

★ Additional Information

- It should be "**significantly altered**" instead of "**altered significantly**"
- **Significantly altered** means to be modified, changed, improved, reconstructed, defaced, vandalized, or damaged

65. Answer: d

**Explanation:**

The correct answer is "**To cause further trouble to someone already in a difficult situation**" Let's see the idiom with the help of an example:

★ Key Points

- **Kick someone when they are down (*idiom*)** – To criticize, exploit, insult, or otherwise treat badly one who has already suffered a setback or is in a vulnerable position.
  - *Eg.* Can Jeff's employee review wait until next week? His girlfriend just left him, and I don't want to *kick him while he's down*.

★ Additional Information

Let's learn some related idiom:

- **Kick about (*idiom*)** – Literally, to kick an object to move it around repeatedly, usually as a form of amusement by oneself or with others. In this usage, a noun or pronoun is sometimes used between "kick" and "about."
  - *Eg.* You want to go outside and *kick a soccer ball about*?

66. Answer: a

**Explanation:**



The correct answer is "**Definitely**"

★ Key Points

Here let's see the meaning of the given word:

- **Definitely** –certainly; without doubt
  - *Eg.* I'll *definitely* consider your advice.

---

67. Answer: d

**Explanation:**

The correct answer is "**on**"

★ Key Points

Here let's see the whole sentence:

- I am planning a get together **on** Monday.

★ Additional Information

Let's learn further about it:

- **On** - is a very particular preposition of time, that is only used with specific days, dates or named days.
- **At** - to refer to time or place.
- **Upon** - to show that something happens soon after, and often because of, something else
- **Along** - in a line next to something long and thin

---

68. Answer: b

**Explanation:**



The correct answer is "**Gentle**" Key Points Here let's see the given word meanings:

- **Vicious** – cruel; done in order to hurt somebody/something
  - *Eg.* The robber made a *vicious* attack
- **Gentle** – (used about people) kind and calm; touching or treating people or things in a careful way so that they are not hurt
  - *Eg.* I'll try and be as *gentle* as I can,' said the dentist.

★ Additional Information

Let's learn some new word meanings:

- **Influential** -having power or influence
  - *Eg.* He was an *influential* leader.
- **Privileged** -having an advantage or opportunity that most people do not have
  - *Eg.* Only a *privileged* few are allowed to enter this room.
- **Poor** -not having enough money to have a comfortable life
  - *Eg.* The family was too *poor* to buy new clothes.

---

69. Answer: a

**Explanation:**

The correct answer is "**because she does not**" Here we will see the whole sentence:

★ Key Points

- All the problems occurred **because she did not** hear my words to follow the instructions.

★ Additional Information

Let's here see the correct sentence formation:

- It should be "**did not**" instead of "**does not**"

- **Did not** - shows that the sentence is negative AND in the past tense. Also plural nouns and with the pronouns I, you, we and they. You got it, didn't you?
  - *Eg.* We *didn't* get to our hotel until after midnight.
- **Does not** - when speaking in the third person singular only ("he," "she," and "it").
  - *Eg.* He *doesn't* like his brother.

---

70. Answer: c

**Explanation:**

The correct answer is "**write poems**" Here we will see the correct sentence:

★ Key Points

- I like reading fictional stories besides **writing poems**.

★ Additional Information

Let's learn about the correct sentence formation:

- It should be "**writing poems**" instead of "**write poems**"
- **Wrote (and writ)** are the past tense version of write.
- **Writing** is both noun and verb with the verb a present participle, i.e., it's present tense using an -ing present participle.
- **Written** is a past tense, specifically the past participle, albeit with an irregular ending.

---

71. Answer: d

**Explanation:**

The correct answer is 'much'.

★ Key Points

- The noun "time" is non-countable.
- Let us explore the meaning of each option:
  - **Many:** We use "many" to refer to a large number of something countable.
    - **Example:** *I don't have many relatives.*
  - **Great:** We use "great" to describe something that is very large.
    - Great is more formal than big and it is more commonly used to describe quality rather than quantity.
    - **Example:** *The room had a great bay window.*
  - **More:** More is often considered to be the comparative form of much and, many.
    - This option doesn't make sense in the sentence as it would require a comparative structure to work correctly.
    - **Example:** *She poured herself more coffee.*
  - **Much:** "Much" is used to describe mass nouns or noncount nouns like juice, rice, patience, and happiness.
    - When using much, the noun will always be singular; it cannot be plural.
    - **Example:** *I don't have much time.*
- The sentence implies that we eventually need the company of others even if we spend a lot of time improving our mental and emotional health to feel and function at our best.
- The word "much" indicates a large quantity of time, which makes sense in this context.
- Thus, the correct answer is **Option 4**.

**Correct Passage:** *No matter how (1) much time you \_\_\_\_\_ (2) \_\_\_\_\_ to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.*

72. Answer: a

Explanation:

The correct answer is '**devote**'.

★ Key Points

- Let's explore all options:
  - **Devote**: to give a lot of time, energy, etc. to somebody/something. (किसी काम में बहुत-सा समय और शक्ति लगाना)
  - **Promote**: to encourage something; to help something to happen or develop. (किसी बात को प्रोत्साहित करना; किसी बात के होने या बढ़ने में सहायता करना)
  - **Assess**: to judge or form an opinion about something. (राय बनाना, आँकना)
  - **Proceed**: to continue doing something; to continue being done. (कुछ करना जारी रखना; कोई बात होते रहना)
- The sentence suggests that no matter how much time we give to improving our **mental and emotional health**, we will still need social connections to function at our best.
- The verb "**devote**" means to give a lot of time, effort, or attention to something, which makes sense in this **context**.
- Thus, the correct answer is **Option 1**.

*Correct Passage: No matter how (1) much time you (2) devote to improve your mental and emotional health, you will still need the company of \_\_\_\_\_ (3) \_\_\_\_\_ to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.*

73. Answer: c

**Explanation:**

The correct answer is '**others**'.

★ Key Points

- Let us explore each option:
  - **Some**: We use "some" before nouns to refer to indefinite quantities.

- Although the quantity is not important or not defined, using "some" implies a limited quantity.
- Example: *Can you get me some milk?*
- Any: We use "any" before nouns to refer to indefinite or unknown quantities or an unlimited entity.
  - Example: *Mr. Jacobson refused to answer any questions.*
- Others: When other as a pronoun refers to more than one person or thing, it takes the plural form, "others."
  - **Example:** *Some scientists think we should reduce the number of flights to prevent global warming; others disagree.*
- Few: We use the word "few" when we want to talk about the quantity of something. Usually, we use it when we want to talk about a small quantity.
  - Example: *Few members of the family leave their hometown each year.*
- The sentence suggests that humans need social connections to feel and function at their best, and this implies that social connections are necessary for everyone.
- The word "others" means the remaining people or things in a group, which fits the context of social connections being necessary for everyone.
- Thus, the correct answer is **Option 3**.

Correct Passage: No matter how (1) much time you (2) devote to improve your mental and emotional health, you will still need the company of (3) others to feel and function at your best. Humans are social \_\_\_\_\_ (4) \_\_\_\_\_ with emotional needs for relationships and positive connections to others. We're not meant to survive, \_\_\_\_\_ (5) \_\_\_\_\_ alone thrive, in isolation.

74. Answer: c

**Explanation:**

The correct answer is 'creatures'.

★ Key Points

- Let us explore each option:
  - **Kingdoms:** a country that is ruled by a king or queen. (राजा या रानी द्वारा शासित देश; राज्य)
  - **Populations:** the number of people who live in a particular area, city or country. (किसी विशेष क्षेत्र, नगर, देश में रहने वालों की संख्या; जनसंख्या, आबादी)
  - **Creatures:** a living thing such as an animal, a bird, a fish or an insect, but not a plant. (पशु, पक्षी आदि प्राणी (परंतु पौधे नहीं); जीव)
    - In this context, it suggests that humans are social creatures who have an inherent need for social connections.
  - **Lives:** the quality that people, animals or plants have when they are not dead. (व्यक्तियों, पशुओं या पौधों की जीवित अवस्था; जीवन, ज़िंदगी)
- The sentence suggests that humans are social creatures, meaning that they have an inherent need for social connections.
- The word "creatures" refers to living beings, and in this context, it refers to humans who have emotional needs for positive relationships and connections with others.
- Thus, the correct answer is **Option 3**.

*Correct Passage: No matter how (1) much time you (2) devote to improve your mental and emotional health, you will still need the company of (3) othersto feel and function at your best. Humans are social (4) creatures with emotional needs for relationships and positive connections to others. We're not meant to survive, ----- (5) ----- alone thrive, in isolation.*

## 75. Answer: c

### Explanation:

The correct answer is 'let'.

### ★ Key Points

- The phrase "let alone" is used to emphasize that something is more impossible than another thing.

- Phrase "let alone" का प्रयोग इस बात पर जोर देने के लिए किया जाता है कि कुछ दूसरी चीज़ों की तुलना में अधिक असंभव है।
- The sentence implies that surviving alone is already difficult, but thriving alone is even more challenging or impossible.
- The sentence "We're not meant to survive, let alone thrive, in isolation" is a common expression that means that it is difficult to survive without the help of others, and it is nearly impossible to thrive or succeed without their help.
- Thus, the correct answer is **Option 3**.

*Correct Passage: No matter how (1) much time you (2) devote to improve your mental and emotional health, you will still need the company of (3) others to feel and function at your best. Humans are social (4) creatures with emotional needs for relationships and positive connections to others. We're not meant to survive, (5) let alone thrive, in isolation.*

★ Additional Information

- Explanation of the other options:
  - "Have" does not make sense in this sentence and does not fit with the intended meaning.
  - "Lest" means "in case," "for fear that," or "in order to prevent," and does not fit in the context of this sentence.
  - "Get" does not fit in the context of this sentence and does not make sense grammatically.

76. Answer: a

**Explanation:**

The correct answer is the Reserve Bank of India.

★ Key Points

- It became installed in **1989**, through an Act of Parliament.
- **SIDBI** is one of the four All-India economic institutions regulated and supervised by means of the Reserve financial institution of India; the other



three are **India Exim bank, NABARD, and NHB.**

- The Small Industries development financial institution of India (SIDBI) is the apex regulatory body for normal licensing and regulation of micro, small, and medium company finance groups in India.
- **SIDBI** is lively in the development of Micro Finance establishments thru the SIDBI basis for Microcredit score.

#### ★ Additional Information

- Indian Bank was established in **1907** and is headquartered in Chennai, India.
- ICICI Bank Limited is an Indian multinational bank and financial services company headquartered in **Vadodara**.
- State Bank of India (SBI) is an Indian multinational public sector bank and financial services statutory body headquartered in **Mumbai, Maharashtra**.
- The SIDBI headquarter is in Lucknow alongside 5 nearby offices and **33 department** offices at some stage in the kingdom.

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77. Answer: d

Explanation:

The correct answer is Karnataka.

#### ★ Key Points

- **Pattadakallu** normally referred to as Pattadakal is a small village in Karnataka and the embodiment of an Indian architectural wonder.
- To rejoice in the grandeur and tale of those temples, the government of Karnataka organizes the annual Pattadakal Dance pageant.
- **Each yr, in January** or February this dance festival is held in the village itself and is attended by way of humans from all over the globe.
- It might be a low-key three-day ritual and is scheduled to begin on 1st **January 2021**.

#### ★ Additional Information

- **Bihu is the most famous folk dance in Assam.**
- Celebrated for 5 days commencing from the whole moon day of Phalguna (February/March), Yaoshang is the top-rated festival of Manipur.
- A few folks and tribal dances in Jharkhand are **Jhumair, Mardana Jhumair, Janani Jhumair, Domkach, Lahasua, Jhumpa, Fagua, Paika, Chhau, Firkal, and Santali.**
- **The Hampi pageant**, celebrated in November, is one of the most critical galas in Karnataka celebrated on a grand stage.

## 78. Answer: c

### Explanation:

The correct answer is republic.

#### ★ Key Points

- **The Preamble of the constitution of India** gives the concepts of the charter and shows the resources of its authority
- It was followed on **26 November 1949** by way of the Constituent Assembly and came into impact on **26 January 1950**, celebrated because of the Republic day of India.
- The preamble is based on the target's resolution, which changed into drafted and moved within the Constituent assembly via Jawaharlal Nehru on 13 December 1946.
- There was even an argument about whether to consist of the name of 'God' and 'Gandhi' in the Preamble.

#### ★ Additional Information

- Oligarchy is a shape of a presidency wherein a small institution of human beings holds most or all political power.
- In a monarchy, a king or queen is the head of the state.
- **The British Monarchy** is referred to as a constitutional monarchy.
- **Aristocracy regularly** ends in hereditary government, after which the hereditary monarch appoints officials as they see a match.

79. Answer: a

**Explanation:**

The correct answer is Nalanda University.

★ Key Points

- **The university of Nalanda** was famous and one of the most prestigious during the 5th century onwards.
- The University of Nalanda was set up by **Kumar Gupta**, one of the famous rulers of the Gupta Dynasty.
- Nalanda University was devoted to not only Buddhist studies but also trained students in fine arts, medicine, mathematics, astronomy, politics, and the art of war.
- There were also other India's early universities and learning centers such as **Taxila, Nalanda, and Vikramashila**

★ Additional Information

- Delhi University was founded in **1922** by an Act of the Central Legislative Assembly.
- Pune University was established in **1949** and is spread over a 411-acre (1.66 km<sup>2</sup>) campus in the neighborhood of Ganeshkhind.
- The University of ancient Taxila was an ancient university located in the city of Taxila (in modern-day Pakistan) near the bank of the Indus River.
- Nalanda University is known as the first university in India. The university was established in the 5th century and lasted till the 13th century.

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80. Answer: a

**Explanation:**

The correct answer is Table Tennis.

### ★ Key Points

- **Manika Batra** is one of the true stars of Indian table tennis.
- In Tokyo 2020, Manika Batra became the first women's table tennis player from India to make it to the round of 32 in singles at an Olympics.
- She was awarded the Major Dhyan Chand Khel Ratna in 2020.
- As of November 2020, she is the top-ranked female table tennis player in India and ranked 50th in the world as of March 2022.

### ★ Additional Information

- **Sakshi malik** won the bronze medal in the **58 kg category**, becoming the first Indian female wrestler to win a medal at the Olympics.
- Saina Nehwal has represented India three times in the Olympics, winning a bronze medal in her second appearance at the London 2012.
- **Hawa Singh** won the National Championships in the Heavyweight category a record **11 consecutive times – from 1961 to 1972**.
- **Sharath Kamal** was the first Indian table tennis player ever to become ten times Senior National Champion hence breaking the record of eight times National Champion Kamlesh Mehta. In 2019 he was awarded the **Padma Shri**, India's fourth-highest civilian award.

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81. Answer: b

## Your Personal Exams Guide

### Explanation:

The correct answer is the President of India.

### ★ Key Points

- **The Comptroller and Auditor General** are one of the few offices directly appointed by the President of India.
- The second timetable of the Indian charter offers provisions for the **Comptroller and Auditor standard of India**.
- **Shri Girish Chandra Murmu** assumed the workplace because the Comptroller and Auditor were popular in India on the eighth of **August 2020**.

★ Additional Information

- The prime minister is responsible for aiding and advising the president in the distribution of work of the government to various ministries and offices and in terms of the Government of India (Allocation of Business) **Rules, 1961**.
- **Article seventy-six** of the charter mentions that he/she is the very best **law officer in India**.
- **V. Narahari Rao** In 1976 , CAG was relieved from accounting functions.

82. Answer: c

**Explanation:**

The correct answer is Nagara.

★ Key Points

- **The Temples of Khajuraho** are a mind-blowing example of the Nagara fashion of temples because the temples encompass a sanctum.
- The Khajuraho temple's characteristic Nagara-style architectural symbols.
- Khajuraho temples were constructed among **885** adverts and a thousand adverts by using the **Chandela dynasty**.
- Historical records note that the Khajuraho temple web page had eighty-five temples by way of the twelfth century, unfolding over **20 square kilometers**.

★ Additional Information

- **The Indus Valley civilization** (2, six hundred–1,900 BCE) placed within the northwest of the Indian subcontinent is now and again recognized as having been Dravidian
- Vesara is a hybrid form of the Indian temple structure, with a South Indian plan and a shape that features North Indian information
- The Hoysala Empire turned into a Kannadiga strength originating from the Indian subcontinent that dominated the maximum of what is now Karnataka, India between the tenth and the **14th centuries**.
- **Khajuraho Temples** are open on all days from sunrise to sundown.

- They may be in no way closed at gala's or on weekends.

---

83. Answer: a

**Explanation:**

The correct answer is 4.

★ Key Points

- **Meiosis** is a manner wherein a single cell divides two times to produce four cells containing half the original amount of genetic statistics.
- The chromosome pairs line up subsequent to every difference along the middle (equator) of the mobile.
- Meiosis produces **4 haploid cells**. Mitosis produces **2 diploid cells**.

★ Additional Information

- **The motive of meiosis** is to supply gametes or intercourse cells.
- **Meiosis** takes place within the testes and ovaries of women and men, respectively, inside the primordial germ cells.
- **The manner** of meiosis become first defined in the **mid-1870s** by Oscar Hertwig.

Your Personal Exams Guide

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84. Answer: a

**Explanation:**

The correct answer is Amazon.

★ Key Points

- **The Amazon rainforest** is the world's largest tropical rainforest.
- The Amazon is the world's **largest rainforest**.
- It is home to extra than **30 million** human beings and one in ten recognized species on this planet.

- **Top facts about the Amazon**

- The Amazon rainforest covers an enormous 6.7 million square kilometers.
- 10% of all the world's wildlife is found in the Amazon.
- The Amazon is home to over 30 million people, including almost 3 million indigenous people.

- ★ **Additional Information**

- **The Congo** is the second biggest rainforest, subsequent to the Amazon.
- The undisputed number one is probably the maximum famous forest on this planet, the South American Amazon.
- **The 3 largest rainforests in the world**
  - The Amazon.
  - The Congo Rainforest.
  - Bosawas Biosphere Reserve

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85. Answer: d

**Explanation:**

The correct answer is Ports, Shipping, and Waterways.

- ★ **Key Points**

- The Inland Vessels invoice, 2021 became brought to **Lok Sabha on July 22, 2021**.
- **The Act presents** for the regulation of inland vessel navigation by way of states such as the registration of vessels, and safe carriage of products and passengers.
- An inland waterway is a navigable channel used to transport items, materials, or different movable objects

- ★ **Additional Information**

- **The Ministry** of Jal Shakti is a ministry beneath the authorities of India which turned into fashioned in might also 2019 under the second Modi ministry.

- Civil Aviation flights and aircraft are used for non-public and commercial enterprise functions, along with transporting goods or passengers, rather than for navy purposes.
  - **Home Affairs** refers to an interior ministry in the government.
  - A port is a maritime facility comprising one or greater wharves or loading areas, where ships load and discharge shipments and passengers.
- 

86. Answer: b

### Explanation:

The correct answer is Narendranath Dutta.

#### ★ Key Points

- Vivekananda, a unique call **Narendranath Datta**, Datta additionally spelt Dutt.
- The “Swami Vivekananda” call was advised via **Ajit Singh of Khetri** .
- The call way the bliss of discerning awareness and changed into followed through Swami Vivekananda when he left for **Chicago on 31 can also 1893**.
- Narendranath received the call of Swami Vivekananda whilst he became a monk.

#### ★ Additional Information

- **Mool Shankar Tripathi** becomes the original name of Dayanand Saraswati, the founder, and leader of the Arya Samaj.
  - **Mahavira also known as Vardhamana**, changed into the 24th Tirthankara of Jainism.
  - **Shri Swami Samarth**, additionally called Swami of Akkalkot changed into an Indian religious grasp of the Dattatreya subculture.
  - **Vivekananda** based the Ramakrishna Math and the Ramakrishna task.
- 

87. Answer: a



## Explanation:

The correct answer is calcium carbonate.

### ★ Key Points

- The primary difference between limestone and marble is that limestone is a **sedimentary rock, typically composed of calcium carbonate fossils, and marble is a metamorphic rock.**
- **Limestone bureaucracy** while shells, sand, and dirt are deposited at the lowest of oceans and lakes and through the years solidify into rock.
- **Calcium carbonate** does have (at the least) crystal bureaucracy (aragonite and calcite), but I suppose limestone, chalk, and marble are all calcite.
- **Calcium carbonate and its bureaucracy:** In nature, calcium carbonate happens inside the styles of chalk, limestone, and marble.

### ★ Additional Information

- The primary uses of sodium carbonate are as a water softener, food processing aid, pH modifier, swimming pool chemical, and electrolyte.
- **K<sub>2</sub>CO<sub>3</sub>** is likewise known as potash carbonate and is utilized in fertilizers, agrochemicals, warmness-resistant glass, soaps, and within the production of other chemicals.
- **Magnesium carbonate** is a magnesium salt with the system **CMgO<sub>3</sub>**.
- **Calcium carbonate** is a nutritional supplement used when the quantity of calcium taken inside the weight-reduction plan isn't enough.

---

88. Answer: a

## Explanation:

The correct answer is Babul Supriyo.

### ★ Key Points

- The incumbent All India Trinamool Congress authorities led by way of Mamata Banerjee gained the election by a **large margin**.
- The legislative assembly incorporates **294 contributors** to the Legislative assembly, all immediately elected from unmarried-seat constituencies.
- The urban governance in West Bengal is being applied through 118 nos. Of Municipalities / Notified place authorities and 7 nos. Of Municipal organizations.
- Gift and beyond participants of Parliament of India from West Bengal state. **16 Rajya Sabha participants and 42 Lok Sabha** members are elected.

★ Additional Information

- **The very best choice-making body of the celebration is its middle Committee.**
  - Mamata Banerjee – Founder, countrywide Chairperson, chief of the birthday party within the West Bengal Legislative assembly, and Chief Minister of West Bengal.
  - Abhishek Banerjee – national popular Secretary of All India Trinamool Congress.
  - Derek O'Brien – countrywide Spokesperson and leader of the celebration in the Rajya Sabha.
  - Sudip Bandyopadhyay – chief of the party inside the Lok Sabha.
  - Kakoli Ghosh Dastidar – Deputy chief of the celebration inside the Lok Sabha.
  - Kalyan Banerjee – Chief Whip of the birthday party in the Lok Sabha.
  - Kakoli Ghosh Dastidar – Deputy chief of the party in the Lok Sabha.
  - Firhad Hakim – Mayor of Kolkata and cupboard Minister, transport Dept., govt. Of West Bengal.
- The celebration is led by way of Mamata Banerjee, the modern-day **chief Minister of West Bengal**, who has led the state since **2011**.

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89. Answer: b

Explanation:

The correct answer is Odisha.

### ★ Key Points

- Hematite and magnetite are the **2 maximum** essential iron ores in India.
- Hematite: **Odisha 33%, Jharkhand 26%, Chhattisgarh 18%**, and the rest in Andhra Pradesh, Assam, Bihar, Maharashtra, MP, Rajasthan, and UP.
- Magnetite: **Karnataka seventy three%, Andhra Pradesh 14%, Rajasthan 5%, Tamil 49%**, and the rest in Assam, Bihar, Goa, Jharkhand, Kerala, MH, Meghalaya, and Nagaland.
- The Indian state of Odisha changed into the main producer of iron ore u. S . A.

### ★ Additional Information

- **Karnataka** has extra than half of the reserves of magnetite ore in India.
- The principal "hematite" kind of iron deposits are placed in well-defined belts within the States of **Orissa, Jharkhand, Chhattisgarh, Maharashtra, Goa, and Karnataka.**
- **Five biggest iron ore mines in India in 2020.**
  - Bailadila Iron Ore Mines (Kirandul complicated) The Bailadila Iron Ore Mines (Kirandul complex) is a floor mine placed in Chhattisgarh.
  - Bailadila Iron Ore Mines (Bacheli complicated) agencies Intelligence.
  - Jajang Rungta Mine.
  - Balda Block Iron Mine.
  - Joda East Mine.

Your Personal Exams Guide

90. Answer: d

### Explanation:

The correct answer is Bharatanatyam.

### ★ Key Points

- **Alarmel Valli** is a main Indian classical dancer and choreographer and the foremost exponent of the Pandanallur style, in the Indian classical dance form, Bharatanatyam.

- She is broadly acclaimed for her potential to show conventional grammar into deeply internalized, non-public dance poetry.
- She based The Dipasikha Dance basis in **Chennai in 1984**, where she teaches Bharatanatyam.
- **In 1991, Alarmel Valli** became the second youngest dancer to be conferred the Padma Shri from the government of India, after Vyjayanthimala.

★ Additional Information

- **Elam Indira Devi** has published a book on Manipuri dance and culture
  - Lai Haraoba Anoi Eeshei - 2001
- **Sattriya** is a dance-drama overall performance art with origins inside the Krishna-centered Vaishnavism monasteries of Assam and attributed to the fifteenth-century Bhakti movement scholar and saint Mahapurush Srimanta Sankardev.
- He becomes a descendant of the Maharaj family of Kathak dancers, which includes his uncles, Shambhu Maharaj and Lachhu Maharaj, and his father and guru, **Acchan Maharaj**.

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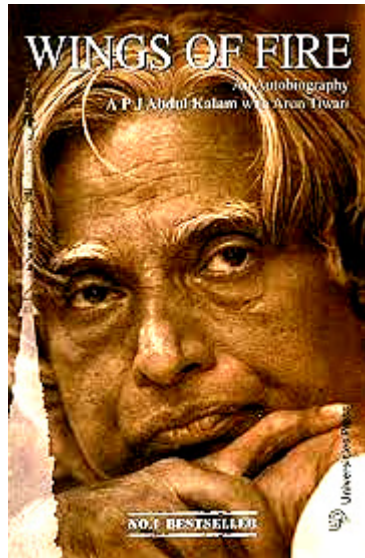
91. **Answer: c**

**Explanation:**

The correct answer is **APJ Abdul Kalam**.

★ Key Points

- Wings of Fire : An Autobiography of A P J Abdul Kalam , former President of India.
- It was written by Dr Abdul Kalam and Arun Tiwari .
- Dr Kalam examines his early life, effort, hardship, fortitude, luck, and the chance that eventually led him to lead Indian space research, nuclear and missile programs.
- It was originally published in 1999.



★ Additional Information

**Homi J. Bhabha**

- Homi J. Bhabha was an Indian nuclear physicist, founding director, and professor of physics at the Tata Institute of Fundamental Research. Colloquially known as the father of the Indian nuclear program .
- Homi J. Bhabha was the Chairman of the Atomic Energy Commission which was set up in August 1948 .
- Dr Homi Bhabha established the Atomic Energy Establishment , Trombay (AEET) in January 1954 .
- In 1966 , Atomic Energy Establishment, Trombay was renamed; Bhabha Atomic Research Centre (BARC) .
- Dr Bhabha was one of the founding directors of the Tata Institute of Fundamental Research.
- He was awarded the Admas Prize.

**CV Raman**

- Sir Chandrasekhara Venkata Raman was an Indian physicist whose work was influential in the growth of science in India.
- He was awarded the Nobel prize for the discovery that when light traverses a transparent material, some of the light that is deflected changes in wavelength.
- This phenomenon is now called Raman scattering and is the result of the Raman effect.

## Vikram Sarabhai

- Dr Vikram Sarabhai was born on August 12, 1919, in Ahmadabad.
- Dr Vikram Sarabhai was considered the Father of the Indian space program.
- He was a great institution builder and established a large number of institutes in diverse fields.
- He was instrumental in establishing the Physical Research Laboratory (PRL) in Ahmedabad in November 1947.
- He was also Chairman of the Atomic Energy Commission.
- Dr Sarabhai's dialogue with NASA in 1966, the Satellite Instructional Television Experiment (SITE) was launched from July 1975–July 1976.

## 92. Answer: a

### Explanation:

The correct answer is three.

### ★ Key Points

- The Himalayas consist of three main parallel ranges, namely **The greater Himalayas, The lesser Himalayas, and The outer Himalayas**.
- The **northernmost range of the Himalayas** is known as the Great Himalayas.
  - It is also called Himadri.
  - Himadri is the backbone of the Himalayas.
  - It is the most continuous range consisting of the loftiest peaks with an average height of 6,000 metres.
  - It contains all the prominent Himalayan peaks like Mount Everest, Annapoorna, Nandadevi, etc.
- The Lesser Himalayas is the **mountain range that lies between Himadri and Siwalik**.
  - It is also called Himachal.
  - It is mainly composed of highly compressed and altered rocks.
  - The altitude varies between **3,700 and 4,500 metres** and the average width is 50 Km.

- Pir Panjal is the largest range in Himachal.
- This region is well known for its hill stations.
- The **outermost range of the Himalayas** is called the Shiwalik (Outer Himalayas.)
  - It extends over a width of 10–50 Km and has an altitude varying between **900 and 1100 metres** .
  - The word Shiwalik literally means "**tresses of Shiva**".
  - **Shiwalik is parallel to the Ganga plain.**

93. Answer: b

### Explanation:

The correct answer is Chalukya.

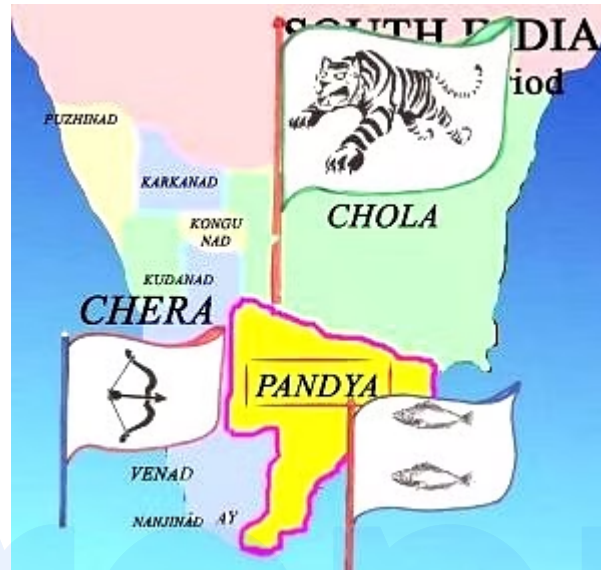
#### ★ Key Points

- Pulakeshin I was the most famous ruler of the Chalukya dynasty of Vatapi.
- During his reign, the Chalukya kingdom expanded to cover most of the Deccan region in peninsular India.
- A son of the Chalukya king Kirtivarman I, Pulakeshin overthrew his uncle Mangalesha to gain control of the throne.

#### ★ Additional Information

- The three ancient Tamil dynasties namely Chera, Chola, and Pandya were of ancient origins.
- Together they ruled over this land with a unique culture and language, contributing to the growth of some of the oldest extant literature in the world.
- These three dynasties were in constant struggle with each other vying for hegemony over the land.
- Invasion by the Kalabhras during the 3rd century disturbed the traditional order of the land, displacing the three ruling kingdoms
- These occupiers were overthrown by the resurgence of the Pandyas and the Pallavas, who restored the traditional kingdoms.

- The Cholas who re-emerged from obscurity in the 9th century by defeating the Pallavas and the Pandyas rose to become a great power and extended their empire over the entire southern peninsula.



94. Answer: c

Explanation:

The correct answer is Lysosome.

★ Key Points

- Lysosomes are **membrane-enclosed organelles** that contain an array of **enzymes capable of breaking down all types of biological polymers—proteins, nucleic acids, carbohydrates, and lipids.**
- A lysosome has three main function-
- The breakdown/digestion of macromolecules (carbohydrates, lipids, proteins, and nucleic acids), cell membrane repairs, and responses against foreign substances such as bacteria, viruses and other antigens

★ Additional Information

- Mitochondria are **membrane-bound cell organelles** (mitochondrion, singular) that generate most of the chemical energy needed to power the cell's



biochemical reactions.

- A ribosome is **an intercellular structure made of both RNA and protein, and it is the site of protein synthesis in the cell.** The ribosome reads the messenger RNA (mRNA) sequence and translates that genetic code into a specified string of amino acids, which grow into long chains that fold to form protein
- A vacuole is **a membrane-bound cell organelle.** In animal cells, vacuoles are generally small and help sequester waste products. In plant cells, vacuoles help maintain water balance.

95. Answer: a

### Explanation:

The correct answer is Mahesh Bhupathi.

#### ★ Key Points

- **Mahesh Shrinivas Bhupathi** is an Indian former doubles world No. 1 tennis player.
- In 1997, he became the first Indian to win a major tournament.
- With his win at the **2006 Australian Open mixed doubles**, he joined the elite group of eight tennis players who have achieved a career Grand Slam in mixed doubles

#### ★ Additional Information

- **Milkha Singh, also known as The Flying Sikh**, was an Indian track and field sprinter who was introduced to the sport while serving in the Indian Army. He is the **only athlete to win gold in 400 metres at the Asian Games as well as the Commonwealth.**
- **Neeraj Chopra** is an Indian track and field athlete who is the reigning Olympic champion and world championship silver medalist in the javelin throw. He is the **first Asian athlete to win an Olympic gold medal in men's javelin throw**
- **Thadathuvila Chandapillai Yohannan, better known as T. C. Yohannan**, is a former Indian long jumper who held the national record in the long jump for

nearly 3 decades and represented India in the 1976 Summer Olympics in Montreal, Quebec, Canada. He hails from the state of Kerala

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96. Answer: d

### Explanation:

The correct answer is birth rate.

#### ★ Key Points

- The birth rate is **the number of individuals born in a population in a given amount of time**. The human birth rate is stated as the number of individuals born per year per 1000 in the population. For example, if 35 births occur per year per 1000 individuals, the birth rate is 35.
- **The rate of natural increase is the difference between birth and death rates.**
- It measures the degree to which a population is growing.
- Since birth and death rates are measured as the number of births (or deaths) occurring per 1,000 population.

#### ★ Additional Information

- **Mortality rate, or death rate, is a measure of the number of deaths (in general, or due to a specific cause) in a particular population, scaled to the size of that population, per unit of time.**
  - **Growth rates refer to the percentage change of a specific variable within a specific time period.** For investors, growth rates typically represent the compounded annualized rate of growth of a company's revenues, earnings, dividends, or even macro concepts, such as gross domestic product (GDP) and retail sales
  - **The fertility rate at a given age is the number of children born alive to women of that age during the year as a proportion of the average annual population of women of the same age.**
-

97. Answer: d

**Explanation:**

The correct answer is Odisha.

★ Key Points

- As per the Socio-Economic Census 2015 , Orissa has the largest population of households living on alms
- SECC-2015 is a study of the socio-economic status of rural and urban households and allows the ranking of households based on predefined parameters.
- SECC has **three census components** which were conducted by three separate authorities but under the overall coordination of the **Department of Rural Development in the Government of India**
- ★ Additional Information
- Census in Rural Area has been conducted by the Department of Rural Development (DoRD) .
- Census in **Urban areas** is under the administrative jurisdiction of the Ministry of Housing and Urban Poverty Alleviation (MoHUPA )

98. Answer: b

**Explanation:**

The correct answer is Carnatic.

★ Key Points

- **Madurai Shanmukhavadiyu Subbulakshmi** (16 September 1916 – 11 December 2004) was an Indian Carnatic singer from Madurai, Tamil Nadu.

- She was **the first musician ever to be awarded the Bharat Ratna, India's highest civilian honour**

★ Additional Information

- There are several elements of hip-hop that illustrate the jazz influence, but one of the most obvious is the massive number of samples used from the jazz genre.
- From rhythms to accompaniments, jazz music is looped, edited, and spliced to provide an ideal canvas for hip-hop lyric
- **Rock music**, also called rock and roll, rock & roll, or rock 'n' roll, is a form of popular music that emerged in the 1950s and is defined as “**a form of music with a strong beat**”—it is difficult to be much more explicit about it.

99. Answer: d

Explanation:

The correct answer is 29 March 1857.

★ Key Points

- **Mangal Pandey** was an Indian soldier who played a key part in the events immediately preceding the outbreak of the Indian Rebellion of 1857.
- He was a Sepoy in the **34th Bengal Native Infantry regiment of the British East India Company**.
- Due to his attack on two British officers, Mangal Pandey was hanged to death on 29 March 1857, at the age of 29.

★ Additional Information

- A **new Enfield rifle** was introduced in India by the British and the rumour going around was that the cartridges were **greased with animal fat**, primarily from pigs and cows.
- To use the rifle, the soldiers would have to bite off the ends of the greased cartridges in order to load the gun. Since **cows are holy animals to Hindus** and

pigs are considered repugnant to Muslims , it's use was considered controversial by the Indian soldiers.

- The Indian soldiers thought that the British did this on purpose to dishonour the religion of the Indian soldiers. At the Barrackpore ground near Kolkata, on 29 March 1857, Pandey was hanged to death.

100. Answer: d

### Explanation:

The correct answer is Kathak.

#### ★ Key Points

- Pandit Birju Maharaj was an Indian dancer, composer, singer and exponent of the Lucknow "Kalka-Bindadin" Gharana of **Kathak dance** in India.
- **Birju Maharaj** was honoured with the country's second-highest Civilian Award, Padma Vibhushan in 1986 for his remarkable contribution.
- Pandit Birju Maharaj, a legendary Kathak maestro, passed away on **January 17, 2022, at the age of 83.**

#### ★ Additional Information

- One of India's leading Bharatanatyam exponents and research scholars, **Bala Devi Chandrashekar**.
- The three influential figures in Kuchipudi, during the first half of the twentieth century, were **Vedantam Lakshminarayana Sastri, Vempati Venkata Narayana Sastri and Chinta Venkataramayya.**
- **Mahapurush Srimanta Sankardev** is credited with developing Sattriya dance into its present form to accompany performances of plays used for religious teaching.
- By the **15th century** , the flute had become part of the performance, and **Sankardev composed music for the dances.**