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Your Personal Exams Guide

NDA	CDS	SSC CGL	CBSE UGC NET
IAS	SSC CHSL	CTET	MPSC
AFCAT	CSIR UDC NET	IBPS PO	UP POLICE
SSC MTS	SBI PO	BPSC	UPTET
IBPS RRB	IBPS CLERK	IES	UPSC CAPF
SSC Stenogr..	RRB NTPC	SSC GD	RBI GRADE B
RBI Assistant	DSSSB		

SSC MTS Previous Year Paper (Held on: 26 July 2022 Shift 1)

Total Time: 1 Hour : 30 Minute   **Total Marks:** 100

Instructions

Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence & 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. 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. All T are N.
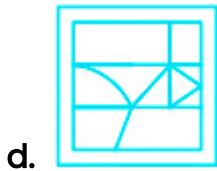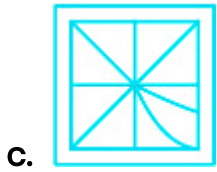
   II. No M is N.

   Conclusions:

   I. All T are M.

   II. Some T are not M.

   a. Both conclusions I and II follow

   b. Only conclusion I follows

   c. None of the conclusions follow

   d. Only conclusion II follows

---

2. Select the option figure in which the given figure is embedded.   (+1, –0.25)

a.

b.

c.

d.

---

3. 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:

Only a few A1 are P5.

Only a few P5 are T8.

Conclusions:

I. Some A1 are T8.

II. All P5 can never be T8.

   a. Only conclusion II follows.

   b. Neither conclusion I nor II follow.

   c. Only conclusion I follows.

   d. Both conclusions I and II follow.

4. 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)**

NORMAL : PQTOCN :: REGARD : TGICTF :: TRAVEL : ?

   a. VTCXFN

   b. VTCWGN

   c. VTCXGN

   d. VTCXGM

5. In a certain code language, 'planes get going' is coded as 'pn lm pg', and 'hard work get' is coded as 'kt rk lm'. 'hard is you' is coded as 'ab rk fg'. What can be the code for 'work' in that language? **(+1, –0.25)**

   a. kn

   b. lm

   c. pg

   d. kt

6. 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)**

8 : 514 :: 3 : 29 :: 7 : ?

   a. 325

b. 355

c. 335

d. 345

---

7. 4 males M1, M2, M3 and M4 are sitting in a row facing towards the west (not necessarily in the same order). 4 females F1, F2, F3 and F4 sitting in a row facing towards the face of these males (not necessarily in the same order). F4 is to the immediate right of F3. One female is sitting between F2 and F3. M3 is diagonally opposite to F2. Only one person sits right of M3. M2 is second to the right of M4.   (+1, -0.25)

Which of the following statements can be correct?

I. M4 is facing F3.

II. M2 is diagonally opposite to F4.

a. Both I and II

b. Neither I nor II

c. Only II

d. Only I

---

8. 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)

14 : 19 :: 25 : 32 :: 103 : ?

a. 123

b. 105

c. 115

d. 107

---

9. A, B, C, D, E, and F are standing in a circle talking, facing the centre of the   (+1, -0.25)
    circle. E is standing immediate right to C. D is standing at the third position
    towards the left of C. A is standing at the second place towards the right of
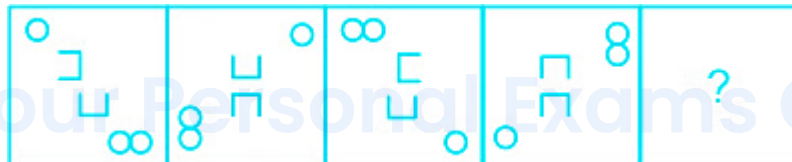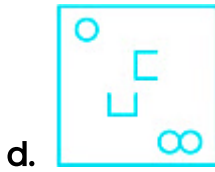   F. Who is standing to the immediate right of D?

a. B

b. E

c. C

d. A

---

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

a.

b.

c.

d.

---

11. The areas of seven circles C1, C2, C3, C4, C5, C6 and C7 are compared. The area of C2 is greater than C5 and less than C1. The area of C4 is greater than C7 and less than C6. The area of C5 is more than C6. If the area of C7 is the lowest, then which of the following options is correct?   (+1, −0.25)
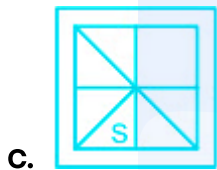
   a. C5 < C4

   b. C3 > C6
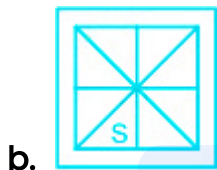
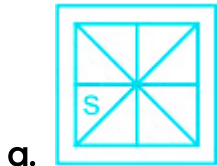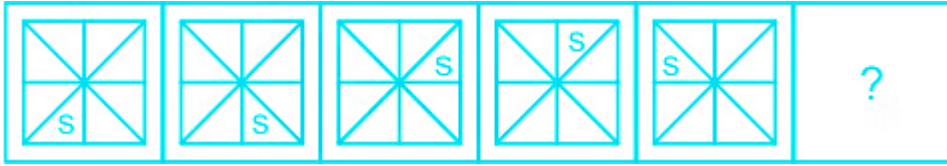   c. C4 > C1

   d. C4 > C2

---

12. 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)

   POEM : TSIQ :: HINT : ?

   a. LMRX

   b. LMRS

   c. LNRX

   d. LNSX

---

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

a.

b.

c.

d.

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

a.

b.

c.

d.

---
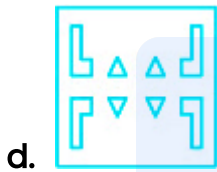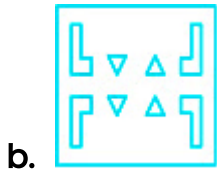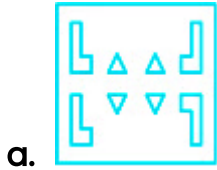
15. After interchanging the given two signs, what will be the value of the following expression?

× and ÷

35 + 5 ÷ 4 × 2 − 15 = ?

(+1, −0.25)

a. 20

b. 25

c. 30

d. 35

---

16. In a certain code language, 'WATER' is written as 'XBUFSVZSDQ' and 'MINOR' is written as 'NJOPSLHMNQ'. How will 'ROSES' be written in that language?

(+1, −0.25)

a. EOQTUSPRNM

b. EOTQUMNRSP

c. SQPNTRFDTR

d. SPTFTQNRDR

---

17. In a certain code language, 'TIN' is coded as '27', and 'GO' is coded as '8'. How will 'PALE' be coded in that language?   (+1, −0.25)

a. 48

b. 125

c. 64

d. 36

---

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

13, 39, 156, 780, ?

a. 4460

b. 4580

c. 4680

d. 4660

---

19. In a certain code language, '752' means 'copper is strong', '276' means 'iron is strong' and '365' means 'iron and copper'. Find the code for 'and'.   (+1, −0.25)

a. 6

b. 3

c. 2

d. 5

---

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

M

Do3mTuEN

N

a. ИƎuTmƐoD

b. Do3mTuƎИ

c. ИƐuTmƐoD

d. ИƎuTm3oD

---

21. Which two numbers (not digits) should be interchanged to make the   (+1, -0.25)
    following equation correct?

21 × 3 − 10 + 4 ÷ 7 = 5

a. 21 and 4

b. 4 and 7

c. 21 and 3

d. 3 and 7

---

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

B, H, M, Q, T, ?

a. V

b. U

c. X

d. W

---

23. Select the option in which the two numbers are related in the same way as are the numbers in the given number pair.   (+1, −0.25)

32 : 85

a. 41 : 75

b. 28 : 91

c. 38 : 77

d. 24 : 77

---

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

a.

b.

c.

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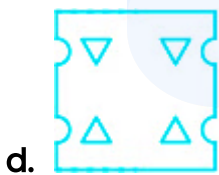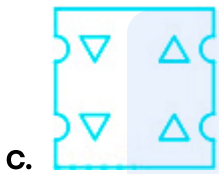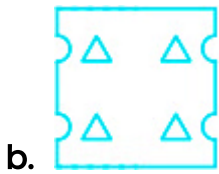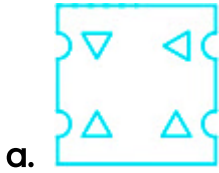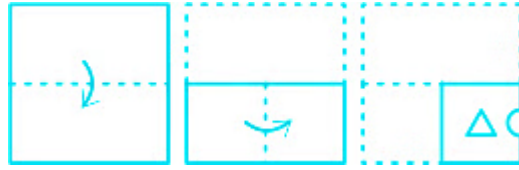
25. Select the option that is related to the fifth letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster and the fourth letter-cluster is related to the third letter-cluster.   (+1, -0.25)

ABC2 : HIJ9 :: DEF5 : KLM12 :: OPQ16 : ?

a. UVW23

b. VWX23

c. VWX22

d. UVW22

Numerical Aptitude

26. The selling price of 15 oranges is the same as the cost price of 19 oranges.   **(+1, -0.25)**
What is the approximate profit percentage?

    a. 26.67%

    b. 15.34%

    c. 18.75%

    d. 33.5%

---

27. At an event there are 500 guests, among whom 28% are adult males, 64%   **(+1, -0.25)**
are adult females, and the rest are children. Find the total number of
children at the event.

    a. 50

    b. 45

    c. 40

    d. 55

---

28. What is the average of the first 50 positive even numbers?   **(+1, -0.25)**

    a. 50.5

    b. 50

    c. 51

    d. 51.5

29. A man buys a toy for Rs. 400 and sells it at a loss of 15%. What is the selling price of the toy?　　　　(+1, −0.25)

    a. Rs. 360

    b. Rs. 340

    c. Rs. 370

    d. Rs. 350

---

30. S_1 and S_2 can do a piece of work together in 18 days, S_2 and S_3 can do the same work together in 27 days, while S_3 and S_1 can do it together in 54 days. In how many days can all 3, working together, do 50% of the work?　　　　(+1, −0.25)

    a. 6 days

    b. 9 days

    c. 7 days

    d. 8 days

---

31. Karun borrowed Rs. 12,000 from Varun and Rs. 15,000 from Tarun, each for two years at the same rate of simple interest per annum. If he paid an interest of Rs. 1,680 to Varun at the end of 2 years, then what is the interest that Karun paid to Tarun at the end of the 2-year period?　　　　(+1, −0.25)

    a. 22,350

    b. 2,100

    c. 1,800

d. 22,050

---

32. A policeman spots a thief at a distance of 200 m and starts chasing him. **(+1, −0.25)**
While the policeman runs at a speed of 9 km/h, the thief runs at a speed
of 7 km/h. After how long will the policeman catch the thief?

    a. 6 minutes

    b. 3 minutes

    c. 10 minutes

    d. 5 minutes

---

33. Find the curved surface area of a cone whose radius of base is 7 cm and **(+1, −0.25)**
slant height is 8 cm. [Use $\pi = \frac{22}{7}$]

    a. 132 cm^2

    b. 198 cm^2

    c. 154 cm^2

    d. 176 cm^2

---

34. The average of P1, P2 and P3 is 50. If the value of P1 is half of the average, **(+1, −0.25)**
then what is the average of P2 and P3?

    a. 55

    b. 57.5

    c. 63.5

d. 62.5

---

35. Simplify the following expression. **(+1, −0.25)**

25 + 12 − 2 + {(4 ÷ 2)}

a. 42

b. 37

c. 35

d. 44

---

36. A camp of soldiers has food for 200 days. After 20 days, 100 more soldiers **(+1, −0.25)** join the camp and the food now can last for 80 days. What was the initial number of soldiers in the camp?

a. 140

b. 80

c. 100

d. 120

---

37. What is the value of $14\frac{2}{7}$ % of 301 + 12.5% of 184? **(+1, −0.25)**

a. 64

b. 70

c. 66

d. 68

---

38. Study the given table and answer the following question.   (+1, −0.25)

Population data from a village in five consecutive years

YEARS	POPULATION	Man : Woman
2000	143	7 : 4
2001	145	3 : 2
2002	128	5 : 3
2003	136	9 : 8
2004	150	13 : 12

As per the data above, the number of men in 2003 is what percentage more or what percentage less than the number of women in the same year?

a. 15% more

b. 12.5% more

c. 12.5% less

d. 15% less

39. The value of $[50 - 6(6 + 1)] \div 8 + 18$ is: (+1, -0.25)

    a. 18

    b. 17

    c. 19

    d. 20

40. Find the HCF of $(4^{315} - 1)$ and $(4^{25} - 1)$.   (+1, -0.25)

    a. 1024

    b. 1

    c. $(4^{25} - 1)$

    d. 1023

41. Two successive discounts of 20% and 30% are given while selling an item.   (+1, -0.25)
    What is the ratio of the marked price to the selling price of the item?

    a. 25 : 14

    b. 38 : 17

    c. 25 : 11

    d. 27 : 16

42. The diameter of a circle is $\frac{7}{4}$ times of the base of a triangle, and the   (+1, -0.25)
    height of the triangle is 14 cm. If the area of the triangle is 56 cm^2, then

what is the circumference (in m) of the circle? (Use π = $\frac{22}{7}$)

a. 0.44 m

b. 2.46 m

c. 0.48 m

d. 1.74 m

---

43. Find the time taken by a boat to travel 80 km with the current, if the speed   (+1, -0.25)
    of the boat in still water is 14 km/h and the speed of the current is 6 km/h.

a. 5 h

b. 6 h

c. 4 h

d. 4.5 h

---

44. The ratio of the total surface areas of two cubes is 49 : 81. What is the   (+1, -0.25)
    ratio of their volumes?

a. 49 : 121

b. 294 : 486

c. 7 : 9

d. 343 : 729

---

45. The average of 4 consecutive numbers is 64.5. What is the largest   (+1, -0.25)
    number among these numbers?

   a. 60

   b. 66

   c. 67

   d. 62

---

46. A certain sum of money amounts to 3 times of itself in 13 years when   (+1, -0.25)
interest is compounded annually at a certain rate of interest per annum.
In how many years will the initial sum amount to 9 times of itself at the
same rate of interest per annum, also compounded annually?

   a. 20 years

   b. 26 years

   c. 30 years

   d. 32 years

---

47. Which of the following is the greatest?   (+1, -0.25)

2 : 5, 1 : 2, 8 : 15, 3 : 5

   a. 8 : 15

   b. 3 : 5

   c. 1 : 2

   d. 2 : 5

---

48. Four years ago, Shyam's age was $\frac{3}{4}$ times that of Ram. Four years hence,   **(+1, -0.25)**
Shyam's age will be $\frac{5}{6}$ times that of Ram. What is the present age of
Shyam?

   a. 15 years

   b. 16 years

   c. 24 years

   d. 20 years

---

49. The following pie chart shows the percentage number of students who   **(+1, -0.25)**
play different sports.

Number of students

Basketball — 20%
Tennis — 35%
Football — 14%
Cricket — 21%
others — 10%
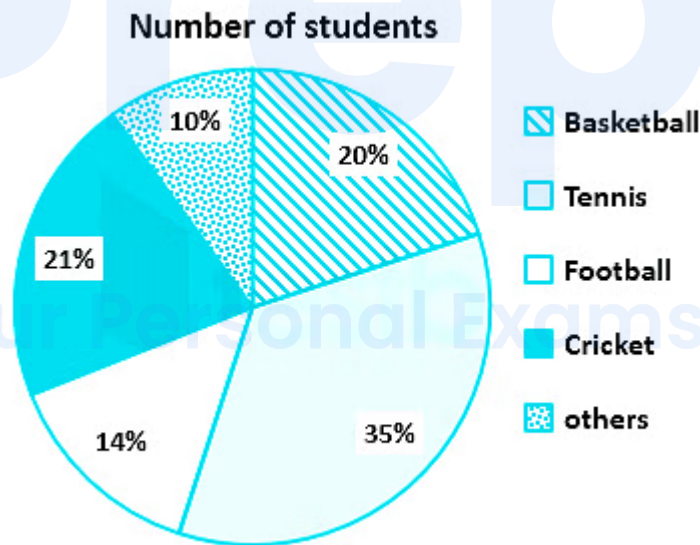
If the total number of students are 500, then how many students play
cricket?

   a. 125

   b. 95

   c. 105

d. 115

---

50. The following bar graph gives figures for the production of fans and of coolers by a large company in four consecutive years.

(+1, −0.25)
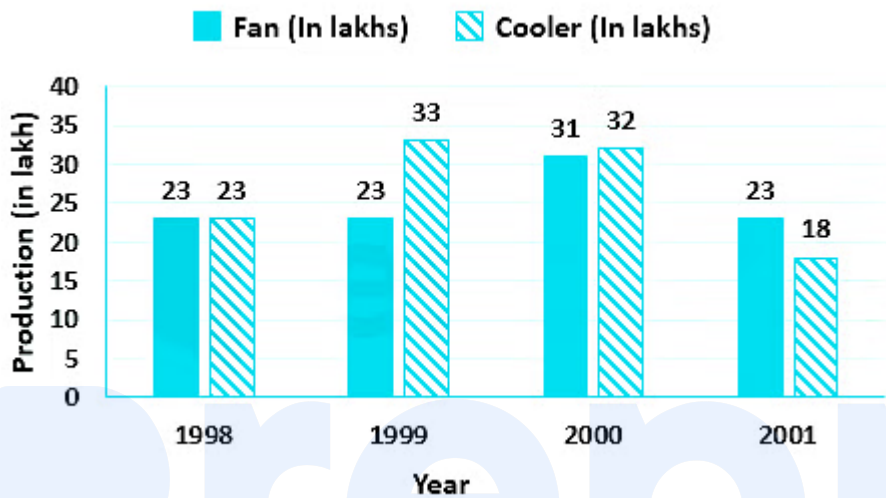
Calculate the ratio of the number of fans produced in 1998 to the number of coolers produced in 2001.

a. 18 : 23

b. 23 : 21

c. 23 : 18

d. 32 : 18

General English

51. 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)**

In the delicacy and elaborateness / of its ornament, it is the / more splendid church in Italy.

   a. of its ornament it is the

   b. No error

   c. In the delicacy and elaborateness

   d. more splendid church in Italy

---

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

The fashion industry is one <u>of the largest contributors</u> to global warming.

   a. of the larger contributor

   b. off the largely contributor

   c. of largest contributors

   d. No improvement required

---

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

A large chunk of lemon crop grown in the country goes _ _ _ _ _ _ to factories.

a. director

b. directing

c. directed

d. directly

---

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

Neither Priya nor Rashmi <u>is planning a</u> trip.

a. is plan a

b. No improvement required

c. are planning a

d. will planning an

---

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

If broadly beneficial immigration is to be sustained, destination countries must acknowledge and _ _ _ _ _ _ _ the real risks that it raises.

a. address

b. speak

c. perform

d. disregard

---

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

A place for storing grain

a. Treasury

b. Apiary

c. Aviary

d. Granary

57. Select the most appropriate ANTONYM of the given word. (+1, −0.25)

Demote

a. Break

b. Elevate

c. Disregard

d. Sack

58. Select the most appropriate synonym of the given word. (+1, −0.25)

Astute

a. Shrewd

b. Dull

c. Impolite

d. Crude

59. 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)**

If your kids sleep well, they are likely to behave better.

   a. No error

   b. to behave better

   c. they are likely

   d. If your kids sleep well

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

The man was _____ enough to thank her for all the hard work.

   a. horrid

   b. repellent

   c. gracious

   d. attractive

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

Forthright

   a. Motivated

   b. Upfront

   c. Devious

d. Outspoken

---

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

    a. Yseterday

    b. Yesterday

    c. Ystrday

    d. Yestarday

---

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

    Castle in the air

    a. Acquire something honestly

    b. Unrealistic plan

    c. Very expensive

    d. Polluted air

---

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

    The last straw

    a. The last ray of hope in an unfortunate situation

    b. The last financial resource

    c. The only option left after a series of unsuccessful attempts

---

d. The final problem in a series of problems that makes the situation intolerable

---

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

(+1, -0.25)

A group of fish

a. Troop

b. Bunch

c. Litter

d. School

---

66. Select the most appropriate ANTONYM of the underlined word in the given sentence.

(+1, -0.25)

The ability to relax and <u>rejuvenate</u> promotes wellness.

a. update

b. replenish

c. suppress

d. revive

---

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

(+1, -0.25)

Amoeba is a microscopic single-celled <u>organism found</u> in pond water.

a. organisms founding in

b. No improvement required

c. organism find in

d. organisms found with

---

68. Parts of the following sentence have been given as options. One of them   (+1, -0.25)
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.

The students was given the task of penning down a short write-up.

a. given the task of penning

b. The students was

c. down a short write-up

d. No error

---

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

Tidy

a. Muddy

b. Orderly

c. Petty

d. Nominal

---

70. Select the option that corrects the misspelt words in the given sentence. **(+1, −0.25)**

We have to relie on meaningful contont now.

a. We have to relie on meaningful content now.

b. We have to rely on meaningful cuntent now.

c. We have to rely on meaningful contont now.

d. We have to rely on meaningful content now.

---

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

When it's your idea, you want to (1) _ _ _ _ _ _ about it all the time. I've had this problem on more than a few occasions now. I know there shouldn't be any shame in (2) _ _ _ _ _ _ your work, but it's such a task to draw the line. In my case, since my work is all things related to social media, this problem gets even (3) _ _ _ _ _ _ convoluted. Long story short, I hate that I (4) _ _ _ _ _ _ have to worry about when it's okay to promote, and when it's (5) _ _ _ _ _ _

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

a. customise

b. express

c. talk

d. meet

---

72. 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)

When it's your idea, you want to (1) _ _ _ _ _ _ about it all the time. I've had this problem on more than a few occasions now. I know there shouldn't be any shame in (2) _ _ _ _ _ _ your work, but it's such a task to draw the line. In my case, since my work is all things related to social media, this problem gets even (3) _ _ _ _ _ _ convoluted. Long story short, I hate that I (4) _ _ _ _ _ _ have to worry about when it's okay to promote, and when it's (5) _ _ _ _ _ _

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

a. leaning

b. demoting

c. asking

d. promoting

---

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

(+1, −0.25)

When it's your idea, you want to (1) _ _ _ _ _ _ about it all the time. I've had this problem on more than a few occasions now. I know there shouldn't be any shame in (2) _ _ _ _ _ _ your work, but it's such a task to draw the line. In my case, since my work is all things related to social media, this problem gets even (3) _ _ _ _ _ _ convoluted. Long story short, I hate that I (4) _ _ _ _ _ _ have to worry about when it's okay to promote, and when it's (5) _ _ _ _ _ _

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

a. least

b. less

c. more

d. most

---

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

    (+1, -0.25)

    When it's your idea, you want to (1) _ _ _ _ _ _ about it all the time. I've had this problem on more than a few occasions now. I know there shouldn't be any shame in (2) _ _ _ _ _ _ your work, but it's such a task to draw the line. In my case, since my work is all things related to social media, this problem gets even (3) _ _ _ _ _ _ convoluted. Long story short, I hate that I (4) _ _ _ _ _ _ have to worry about when it's okay to promote, and when it's (5) _ _ _ _ _ _

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

    a. occasionally

    b. constantly

    c. rarely

    d. never

---

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

    (+1, -0.25)

    When it's your idea, you want to (1) _ _ _ _ _ _ about it all the time. I've had this problem on more than a few occasions now. I know there shouldn't

be any shame in (2) _ _ _ _ _ _ your work, but it's such a task to draw the line. In my case, since my work is all things related to social media, this problem gets even (3) _ _ _ _ _ _ convoluted. Long story short, I hate that I (4) _ _ _ _ _ _ have to worry about when it's okay to promote, and when it's (5) _ _ _ _ _ _

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

a. not

b. none

c. nothing

d. no

General Awareness

76. The reaction between an acid and a base to give a salt and water is called _____ .　　　　(+1, -0.25)

    a. displacement reaction

    b. neutralisation reaction

    c. decomposition reaction

    d. combination reaction

---

77. Who among the following was the first Mauryan ruler who tried to spread his message to the people through inscriptions?　　(+1, -0.25)

    a. Chandragupta

    b. Brihadratha

    c. Bindusara

    d. Ashoka

---

78. The book 'The Immortals of Meluha' has been written by_____ .　　(+1, -0.25)

    a. Amish Tripathi

    b. Salman Rushdie

    c. Ruskin Bond

    d. Aravind Adiga

---

79. The Behdienkhlam festival is primarily celebrated in the state of: (+1, -0.25)

   a. Uttar Pradesh

   b. West Bengal

   c. Meghalaya

   d. Jharkhand

80. India got its central bank in _ _ _ _ _.   (+1, -0.25)

   a. 1935

   b. 1937

   c. 1940

   d. 1942

81. Which of the following is an example of a fibre crop?   (+1, -0.25)

   a. Mango

   b. Hemp

   c. Rubber

   d. Coffee

82. Which country won the maximum number of medals at 2020 Summer   (+1, -0.25)
   Olympic Games (played in 2021)?

a. United States of America

b. People's Republic of China

c. Japan

d. Great Britain

---

83. Mehrunnisa married Emperor Jahangir in _ _ _ _ _.   (+1, -0.25)

a. 1611

b. 1620

c. 1603

d. 1602

---

84. Shyam is suffering from Beriberi. This is because he has a deficiency of   (+1, -0.25)
_ _ _ _ _ _.

a. Vitamin A

b. Vitamin K

c. Vitamin B

d. Vitamin C

---

85. Which of the following musical instruments is Ustad Zakir Hussain   (+1, -0.25)
primarily associated with?

a. Harmonium

b. Tabla

c. Santoor

d. Flute

---

86. Which of the following states has the highest sex ratio in India according to Census 2021? **(+1, -0.25)**

   a. Manipur

   b. Tamil Nadu

   c. Andhra Pradesh

   d. Kerala

---

87. Which freedom fighter abolished the Zamindari System in Uttar Pradesh and was elected as the Home Minister in 1955? **(+1, -0.25)**

   a. Lala Hardayal

   b. Gopal Krishna Gokhale

   c. Govind Ballabh Pant

   d. Jyotiba Phule

---

88. Growth rate of population refers to the: **(+1, -0.25)**

   a. difference between birth rate and death rate

   b. addition of birth rate and death rate

c. difference between death rate and GDP

d. difference between birth rate and GDP

---

89. The climate of India is described as which of the following types? **(+1, -0.25)**

a. Mediterranean

b. Temperate

c. Monsoon

d. Polar

---

90. Which of the following teams won the Syed Mushtaq Ali (cricket) Trophy, **(+1, -0.25)**
2021-22?

a. Uttar Pradesh

b. Tamil Nadu

c. Baroda

d. Karnataka

---

91. In 1590, the Govind Deva temple of Vrindavan, near Mathura was **(+1, -0.25)**
constructed from _____ sandstone.

a. yellow

b. black

c. white

d. red

---

92. Over which state in India does the Mahanadi basin NOT extend?   (+1, -0.25)

   a. Chhattisgarh

   b. Uttar Pradesh

   c. Jharkhand

   d. Odisha

---

93. Which of the following dance forms of India is associated with Rajasthan?   (+1, -0.25)

   a. Kalbelia

   b. Kathak

   c. Bharatanatyam

   d. Odissi

---

94. All of the following are freedom fighters of India who were hanged to   (+1, -0.25)
death on 23 March 1931 in the Lahore conspiracy case,
EXCEPT_____.

   a. Sukhdev

   b. Rajguru

   c. Mahatma Gandhi

   d. Bhagat Singh

---

95. Sameer wants to contest Lok Sabha elections in India. At what age can he do that? (+1, −0.25)

    a. 18 years

    b. 25 years

    c. 21 years

    d. 30 years

96. Nirmala Sitharaman launched the Tejasvini scheme for the people of _____ in November 2021. (+1, −0.25)

    a. Rajasthan

    b. Punjab

    c. Karnataka

    d. Jammu and Kashmir

97. Athlete's foot is a disease caused by _____. (+1, −0.25)

    a. virus

    b. bacteria

    c. genetic disorder

    d. fungi

98. Which article of the Indian Constitution provides freedom to manage religious affairs?   (+1, −0.25)

    a. Article 21

    b. Article 23

    c. Article 26

    d. Article 20

99. Who among the following was crowned Miss Universe, 2021?   (+1, −0.25)

    a. Adline Castelino

    b. Andrea Meza

    c. Nadia Ferreira

    d. Harnaaz Sandhu

100. Who among the following is India's last living Sadhir dancer, honoured with Padma Shri in 2022?   (+1, −0.25)

    a. R Muthukannammal

    b. Manjamma Jogati

    c. Rukmini Devi Arundale

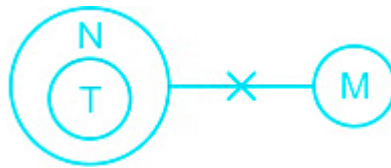   d. Baisali Mohanty

Answers

1. Answer: d

Explanation:

Explanation :

The Venn diagram is

I. All T are M

→

Does not follow (As it is given in the statement that No M is N and all T are N, Hence T can never be M)

II. Some T are not M

→

Follow (As all T are N and No N is M. Hence T which are N will never be M.)

Hence, **Only conclusion II follows** is the correct answer.

---

2. Answer: b

Explanation:

Explanation :

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

In the Option 2 given figure is embedded as shown in the above

Hence, **"Option 2"** is the correct answer.

---

3. Answer: a

Explanation:

The least possible Venn diagram for the given statement is as follows,

Conclusion I. Some A1 are T8.

False (as there is no definite relation between A1 and T8 as shown above)
Conclusion II. All P5 can never be T8.

True (As only a few P5 are T8 given in the statement. So All P5 can never be T8 is true)

Hence, **Only conclusion II follows** . is the correct answer.

---

4. Answer: c

Explanation:

Explanation :

Table of english alphabet 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

NORMAL : PQTOCN

According to table given above
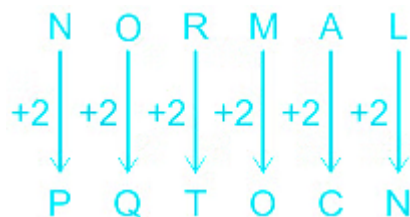
In the same way,

REGARD : TGICTF

$$R \quad E \quad G \quad A \quad R \quad D$$

with +2 applied to each letter:

$$T \quad G \quad I \quad C \quad T \quad F$$
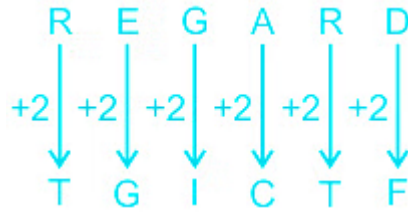
Similarly,

TRAVEL : VTCXGN

$$T \quad R \quad A \quad V \quad E \quad L$$

with +2 applied to each letter:

$$V \quad T \quad C \quad X \quad G \quad N$$
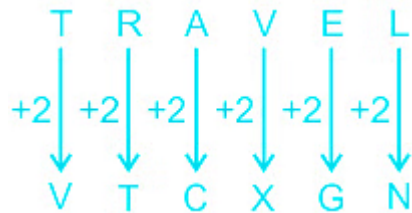
Hence, **Option 3** is the correct answer.

---

5. **Answer: d**

Explanation:

Explanation:

planes (get) going ⟶ pn (lm) pg

hard work (get) ⟶ kt rk (lm)

hard is you ⟶ ab rk fg
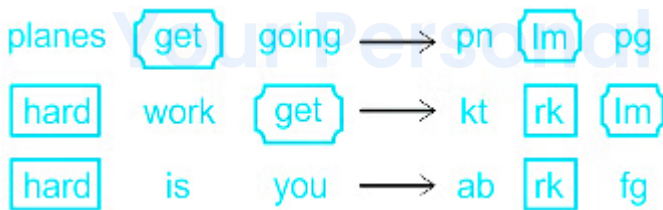
Code for get is 'lm'

Code for hard is 'rk'

Code for **work is 'kt'**

Hence, **"kt"** is the correct answer.

---

6. **Answer: d**

Explanation:

Logic : (First number)^3+ 2 = Second number

8 : 514 = (8)^3+ 2 = 512 + 2 = 514

3 : 29 = (3)^3+ 2 = 27 + 2 = 29

Similarly,

7 : 345 = (7)^3 + 2 = 343 + 2 = 345

Hence , **"345** " is the correct answer.

7. **Answer: a**

Explanation:

Directions:
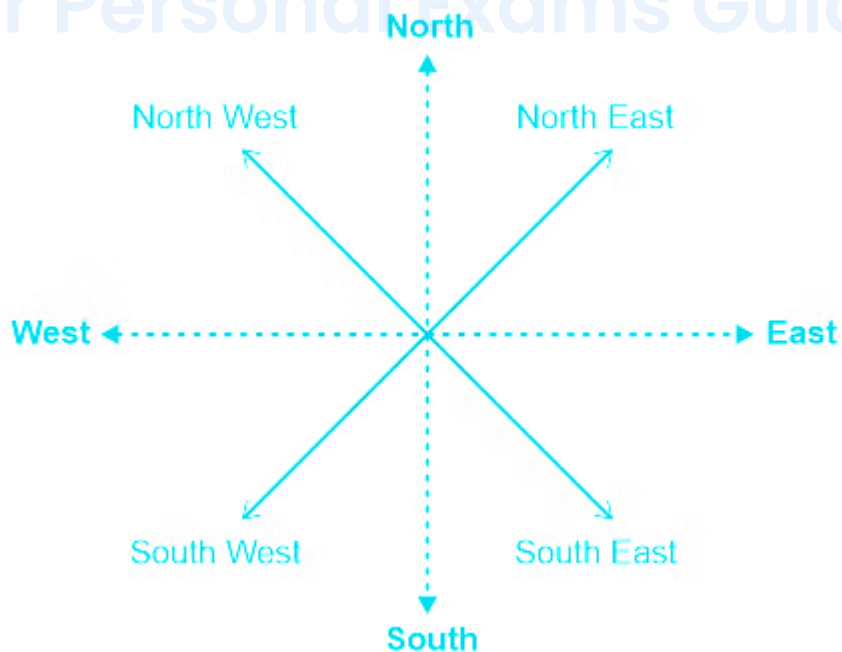
According to the given statements,

1) 4 males M1, M2, M3 and M4 are sitting in a row facing towards the west (not necessarily in the same order). 4 females F1, F2, F3 and F4 sitting in a row facing towards the face of these males (not necessarily in the same order). F4 is to the immediate right of F3. One female is sitting between F2 and F3.

2) M3 is diagonally opposite to F2. M2 is second to the right of M4.Thus the final sitting arrangement is:
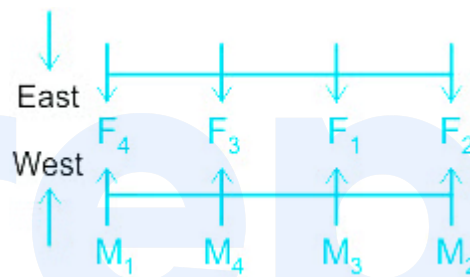
Thus, **both I and II** are true.

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

---

8. **Answer: d**

Explanation:

Logic : First number (A + B) = X + first number = Second number

14 : 19 = 1 + 4 = 5 + 14 = 19

And

25 : 32 = 2 + 5 = 7 + 25 = 32

Similarly,

103 : 107 = 1 + 0 + 3 = 4 + 103 = 107

Hence, **"107"** is the correct answer.

---

9. **Answer: d**

Explanation:

Explanation :

- D is standing at the third position towards the left of C.
- E is standing immediate right to C
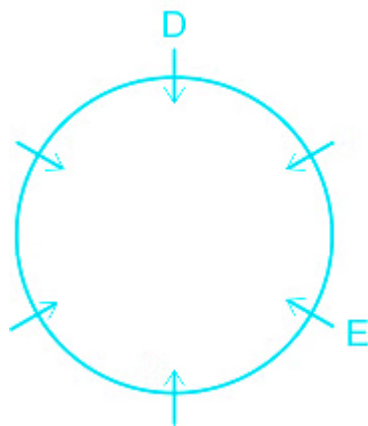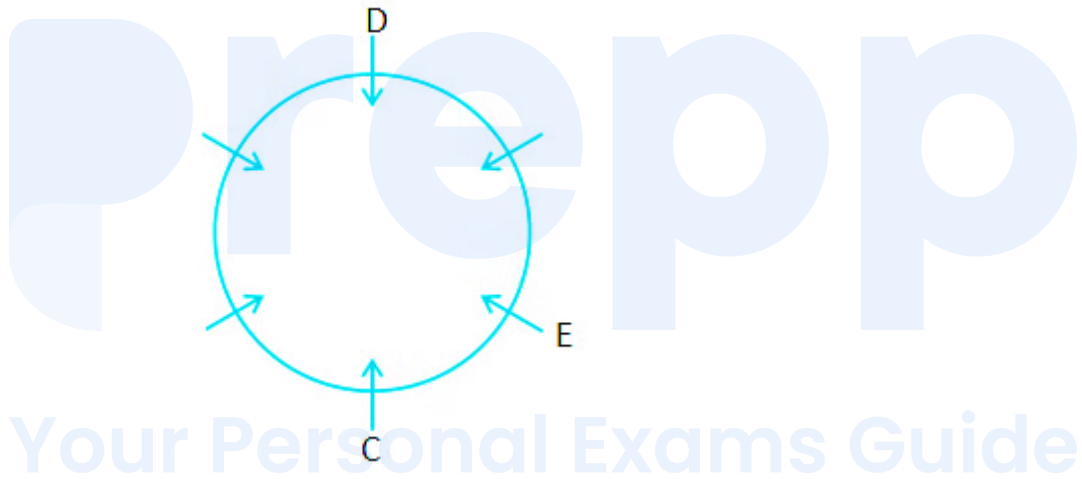
A is standing at the second place towards the right of F.
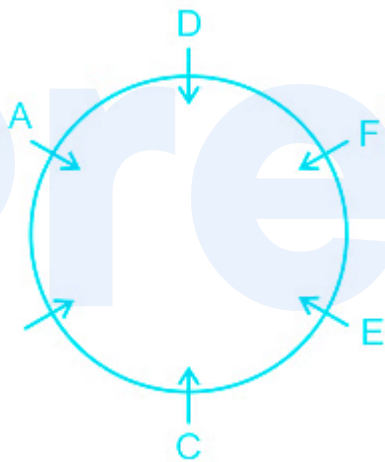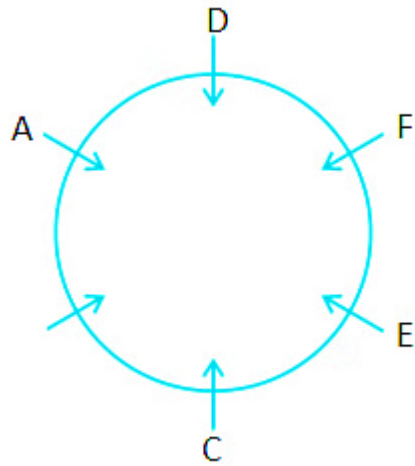
A is standing to the immediate right of D
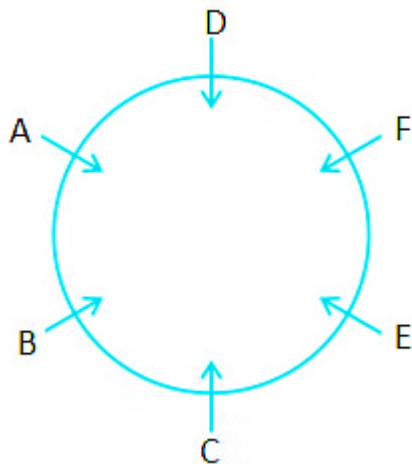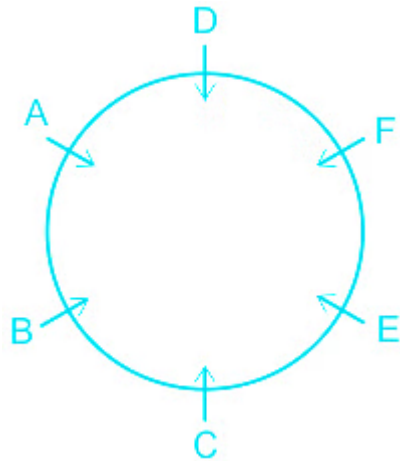
Hence, **A** is the correct answer.

---

10. **Answer: a**

Explanation:

The pattern followed here is given below :

- The upper

is rotating with right 90 ^{0}

- The lower

is rotating with the angle of 180 ^{0}
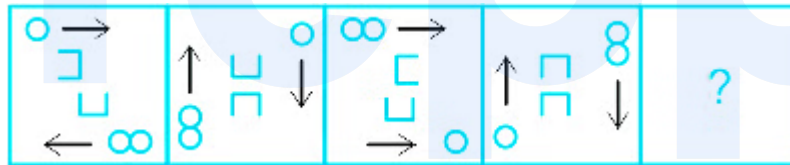
The figure that will replace (?) question mark in the following figure series are shown below
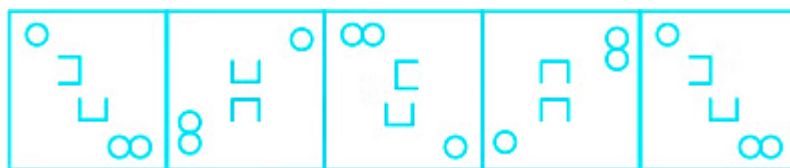
Hence, **Option 1)** is the correct answer.

---

11. **Answer: b**

Explanation:

Explanation :

- The area of C2 is greater than C5.
- The area of C2 is less than C1.

C1 > C2 > C5

- The area of C5 is more than C6
- The area of C4 is less than C6

C1 > C2 > C5 > C6 > C4

- The area of C4 is greater than C7

C1 > C2 > C5 > C6 > C4 > C7

Only Option 2) seems to be correct because C5 < C4, C4 > C1 and C4 > C2 are wrong.

Hence, **C3 > C6** is the correct answer.

---

12. **Answer: a**

Explanation:

The pattern followed here is :

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

POEM : TSIQ

According to alphabet positional value as given above

P O E M
+4 +4 +4 +4
T S I Q

Similarly,

HINT : **LMRX**

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

---

13. Answer: a

Explanation:

The logic followed here is :
The **s**in the box is moving in the anti-clockwise direction in an alternative manner:
(1) **s** crosses one triangle to find a suitable position.

(2) **s** crosses two triangles to find it's perfect position

Therefore, following the same pattern, the final series is as follows
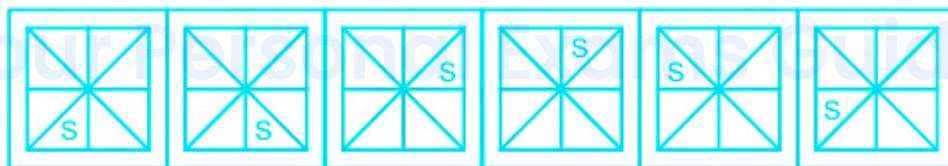
Hence, **Option 1)** is the correct answer.

---

14. Answer: d

Explanation:

Given figure is,
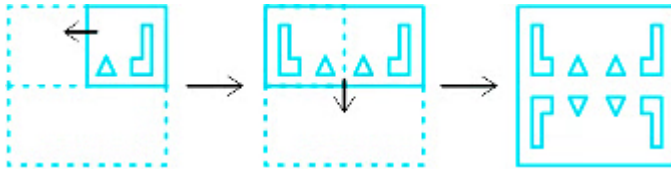
Thus, option 4 is correct.

---

15. **Answer: c**

Explanation:

Explanation :

BODMAS Table

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

Given equation : 35 + 5 ÷ 4 × 2 − 15 =

after interchanging × and ÷ we get, by Using BODMAS table

⇒ 35 + 5 ×$\underline{4 ÷ 2}$− 15

⇒ 35 +$\underline{5 × 2}$− 15

⇒ $\underline{35 + 10}$− 15

⇒$\underline{45 − 15}$

⇒ 30

16. **Answer: d**

Explanation:

Explanation :

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

Logic : First half is coded as +1 and second half is coded as −1

'WATER' is written as 'XBUFSVZSDQ'

According to above table we get :

'MINOR' is written as 'NJOPSLHMNQ'
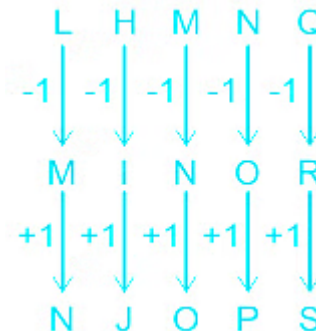
Similarly,

'ROSES' is written as 'SPTFTQNRDR'
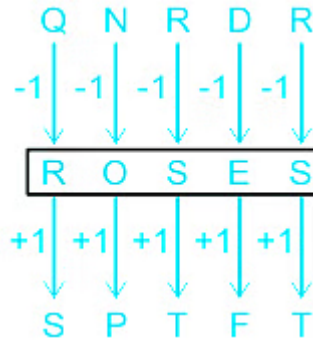
Hence, **Option 4)** is the correct answer.

---

17. **Answer: c**

Explanation:

Logic : (Total Letters)^3= number

'TIN' is coded as '27'

Total Letters in TIN = 3 = (3)^3= 27

And

'GO' is coded as '8

Total letters in GO = 2 = (2)^3=8

Similarly,

'PALE' is coded as 64

Total letters in PALE = 4 = (4)^3= 64

Hence, **"64"** is the correct answer.

---

18. Answer: c

Explanation:

The pattern followed here is :

13   39   156   780   4680

×3   ×4   ×5   ×6

Hence, **4680** is the correct answer.

---

19. Answer: b

Explanation:

The logic followed here is :

7 5 2 ⟶ Copper is Strong

2 7 6 ⟶ Iron is Strong

3 6 5 ⟶ Iron and copper

Code for 'Iron' is 6

Code for 'Copper' is 5

Code for **and** is 3

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

---

20. Answer: b

Explanation:

Explanation :

In a mirror image left changes to right and the right changes to left vice-versa.

The correct mirror image of the given figure when the mirror is placed at MN is

Hence, **Option 2)** is the correct answer.

---

21. **Answer: a**

Explanation:

Given : 21 × 3 – 10 + 4 ÷ 7 = 5

Option 1 : 21 and 4

when we interchange equation becomes

- **4 × 3** – 10 + **21 ÷ 7** = 5
- 12 – 10**+ 3**= 5
- <u>15 – 10</u> = 5
- **5 = 5**

Option 2 : 4 and 7

when we interchange equation becomes

- 21 × 3 – 10 + **7 ÷ 4** = 5
- 63 – 10**+ 1.75**= 5
- <u>64.75 – 10</u> = 5

- 54.75 ≠ 5

Option 3 : 21 and 3

when we interchange equation becomes

- 3 × 21 – 10 + **4 ÷ 7** = 5
- **63** – 10**+ 0.57**= 5
- **63.57 – 10**= 5
- 53.57 ≠ 5

Option 4 : 3 and 7

when we interchange equation becomes

- **21 × 7** – 10 + **4 ÷ 3** = 5
- **147** – 10**+ 1.33**= 5
- **148.33 – 10**= 5
- 138.33 ≠ 5

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

---

22. **Answer: a**

Explanation:

Explanation :

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

Logic followed here is

Hence, **V** is the correct answer.

---

23. Answer: d

Explanation:

The logic followed here is : First number - second number = 53

Given : 32 : 85

32 – 85 = 53

Option 1 : 41 : 75

41 – 75 = 34 ≠ 53

Option 2 : 28 : 91

28 – 91 = 63 ≠ 53

Option 3 : 38 : 77

38 – 77 = 39≠ 53

Option 4 : 24 : 77

24 – 77 = 53 = 53

Hence, **24 : 77** is the correct answer.

---

24. Answer: d

Explanation:

Given figure is,

Thus, option 4 is correct.

---

25. **Answer: b**

Explanation:

Explanation :

Table of english alphabet 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

ABC2 : HIJ9
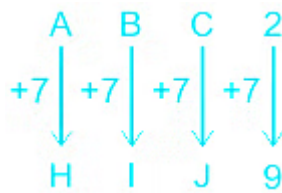
DEF5 : KLM12

OPQ16 : UWX23
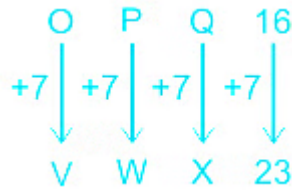
Hence, **"VWX23"** is the correct answer.

---

26. **Answer: a**

Explanation:

Given:

SP of 15 Oranges = CP of 19 Oranges

Formula used:

Profit percentage = $\frac{(SP-CP)}{CP} \times 100$

Calculations:

According to the question,

SP × 15 = 19 × CP

⇒ 15CP + 15Profit = 19CP

∵ SP = Profit + CP

Profit = $\frac{4}{15}$ CP

Now, Profit percentage = $\frac{4CP}{15CP} \times 100$

= $\frac{4}{15} \times 100$

= 0.266666.. × 100

= 26.67%

Hence, The Required value is 26.67%.

---

27. **Answer: c**

Explanation:

Given:

Total guests = 500

Adult males = 28%

Adult females = 64%

Children = 100 - (28 + 64) = 100 - 92 = 8%

Concept used:-

X% of Y = XY/100

Calculations:

According to question,

Percentage of Children = 100 - (28 + 64)

= 100 - 92

= 8%

Now, number of children = 8% of 500

= $\frac{8}{100}$ × 500

= 40

Hence, The number of children is 40.

---

28. **Answer: c**

Explanation:

Given:-

First 50 positive even numbers

Calculation:-

The first 50 positive even numbers are 2, 4, 6, ...100

Average = sum of number/ total number

$$= \frac{2+4+6+8+....+100}{50}$$

$$= \frac{2(1+2+3+4+5+6+......+50)}{50}$$

$$= \frac{2\times(\frac{50\times51}{2})}{50}$$

= 51

Hence, The Required value is 51.

⭐ <u>Shortcut Trick</u>

Concept used:-

Average of first n even number = n + 1

Calculation:-

n = 50

∴ Average of first n even number = 50 + 1 = 51

∴ **Required average value is 51.**

29. Answer: b

Explanation:

Given:

CP of toy Rs.400

Loss = 15%

Concept used:

$SP = \frac{(100-loss\%)}{100} \times CP$

Calculation:

$SP = \frac{(100-loss\%)}{100} \times CP$

$SP = \frac{(100-15)}{100} \times CP$

$SP = \frac{(85)}{100} \times CP$

$SP = 0.85 \times 400 = 340$

∴ The value of SP is Rs. 340.

30. Answer: b

Explanation:

Given:

S 1 and S 2 can do a piece of work together in 18 days,

S 2 and S 3 can do the same work together in 27 days,

while S 3 and S 1 can do it together in 54 days.

Calculations:

Let the time taken by S_1 be a , S_2 be b and S_3 be c.

Now, according to question,

$\frac{1}{a} + \frac{1}{b} = \frac{1}{18}$ -------------------(1)

And, $\frac{1}{b} + \frac{1}{c} = \frac{1}{27}$ -----------(2)

Also, $\frac{1}{c} + \frac{1}{a} = \frac{1}{54}$ ----------(3)

From equation (1),(2) and(3), we get:

$\frac{1}{a} + \frac{1}{b} + \frac{1}{c} = \frac{\frac{1}{8} + \frac{1}{27} + \frac{1}{54}}{2} = \frac{1}{18}$

Now, if S_1, S_2 and S_3 together takes 18 days to complete the work

then, it will take 9 days to do the half work.

Hence, The Required value is 9 days.

⭐ <u>Shortcut Trick</u>

Let total unit of work be L.C.M of (18, 27, 54) = 54 units

	Time	Work	Efficiency
$S_1 + S_2$	18		3
$S_2 + S_3$	27	54	2
$S_3 + S_1$	54		1

Combined efficiency of 2(S_1 + S_2 + S_3) = 6 units/day

⇒ (S_1 + S_2 + S_3) = 3 units/day

Also, half of the work = 54/2 = 27 units

Time is taken them to complete half of work.

⇒ 27/3 = 9 days.

---

31. Answer: b

Explanation:

Given:

Principal (From Varun) = 12,000

Rate = r%

Time = 2 years

S.I paid = Rs.1,680

Principal (From Tarun) = 15,000

Formula used:

SI = Prt/100

Calculations:

Case-1

According to the formula

1,680 = [(12,000 × r × 2)/100]

⇒ 1,68,000 = 24,000r

⇒ r = $\frac{168}{24}$

⇒ r = 7

⇒ r = 7%

Now, SI to be paid to Tarun

= (15,000 × 7 × 2)/100

= Rs. 2,100

∴ The Simple interest paid to Tarun is Rs. 2,100.

---

32. Answer: a

Explanation:

Given:

Distance(d) = 200 m

Speed of the policeman(b) = 9 km/h

Speed of the thief(a) = 7 km/h

Formula Used :

(i) Time = d ÷ [(b - a)]

Calculations:

d = 200 m ,

⇒ a = 7 km/h = 7 × 5/18 = 35/18 m/s

⇒ b = 9 km/h = 9 × 5/18 = 5/2 m/s

According to the formula

Time = d ÷ (b - a)

Time = 200 ÷ (5/2 − 35/18)

Time = $\frac{200}{\frac{10}{18}}$

Time = 18 × 20

Time = 360 s = 360/60 = 6 minutes

Hence, The Police will take 6 minutes to catch thief.

---

33. **Answer: d**

Explanation:

Given:

Radius of cone(r) = 7 cm

Slant height of cone(l) = 8 cm

Formula used:

Curved surface area = πrl

Calculations:

According to question,

Curved surface area of cone = πrl

⇒ $\frac{22}{7}$ × 7 × 8

⇒ 176 cm ^{2}

∴ The Curved surface area is 176 cm 2

---

34. **Answer: d**

Explanation:

Given:

The average of P1 , P2 and P3 is 50,

And P1 is half of the average = 50/2 = 25.

Formula used:

Average = Sum of quantities/No. of quantities

Calculations:

According to question,

$\frac{P1 + P2 + P3}{3}$ = 50

⇒P1 + P2 + P3 = 150

⇒25 + P2 + P3 = 150

⇒P2 + P3 = 125

Now, the average of P2 and P3 is $\frac{P2 + P3}{2}$ = $\frac{125}{2}$ = 62.5

Hence, the average of P2 and P3 is 62.5

---

35. **Answer: b**

Explanation:

Given:

25 + 12 − 2 + {(4 ÷ 2)}

Concept used:

BODMAS Rule

Calculations:

25 + 12 − 2 + {(4 ÷ 2)}

= 25 + 12 − 2 + 2

= 39 – 2

= 37

∴ The Required value is 37.

---

36. **Answer: b**

Explanation:

Given:

In a soldier camp ration is available for x soldiers for 200 days

After 20 days 100 soldiers joined

Calculation:

Let the initial no. of soldiers be x.

After 20 days :

For 1 soldiers, ration will last (200 – 20) days = 180 days

For x soldiers, the ration will last {180 × (x)} days

Now,

Number of soldiers = x + 100

For (x + 100) soldiers, the ration will last for = (180x)/(x + 100)

For (x + 100) soldiers, the ration will last for = $\frac{180x}{x+100}$ days.

Now, given Time = 80 days

$\frac{180x}{x+100}$ = 80

⇒ 80x + 8000 = 180x

⇒ 100x = 8000

Hence, x = 80

∴ Initial Number of soldiers was 80.

 Calculation:

⭐ Alternate Method

Let number of soldiers be x.

∴ Total available food = x × 200

Food consumed by x soldiers in 20 days = x × 20

Now, 100 soldiers are added to camp,

∴ New number of soldiers = (x + 100)

Now rest food is finished in 80 days by (x + 100) soldiers

∴ food consumed in 80 days = (x + 100) × 80

According to question -

⇒ 200x = 20x + 80(x + 100)

⇒ 200x = 100x + 8000

⇒ 100x = 8000

x = 80

∴ Initial number of soldiers are 80.

---

37. **Answer: c**

Explanation:

Given:

$14\frac{2}{7}$ % of 301 + 12.5% of 184

Concept used:

BODMAS

Calculations:

$14\frac{2}{7}$ % of 301 + 12.5% of 184

= $\frac{14 \times 7 + 2}{7}$ % of 301 + $\frac{12.5}{100}$ × 184

= $\frac{100}{7}$ % × 301 + 23

= 43 + 23

= 66

Hence, the simplified value is 66.

---

38. **Answer: b**

Explanation:

Given:

Population data from a village in five consecutive years

Calculations:

Total population in year 2003 is 136.

No. of men in the year 2003

= $\frac{9}{9+8}$ × 136

= $\frac{9}{17}$ × 136

= 9 × 8

= 72

Hence, the number of men in year 2003 is 72.

So, the number of women in same year = 136 – 72 = 64.

Now, the percentage by which men are more than women in year 2003 is

= $\frac{72-64}{64}$ × 100

= $\frac{100}{8}$

= 12.5%

Hence, The men are 12.5% more.

---

39. Answer: c

Explanation:

Given:

$[50 - 6(6 + 1)] \div 8 + 18$

Concept used:

BODMAS

B - Brackets

O - of (×)

D - Division

M - Multiplication

A - Addition

S – Substraction

Priority is given on the basis of letters coming first in the word BODMAS.

Calculations:

$[50 - 6(6 + 1)] \div 8 + 18$

$= [50 - 6(7)] \div 8 + 18$

$= [50 - 42] \div 8 + 18$

$= 8 \div 8 + 18$

$= 1 + 18$

$= 19$

∴ The Required simplified value is 19.

---

40. Answer: d

Explanation:

Given:

$(4^{315} - 1)$ and $(4^{25} - 1)$

Concept used:

HCF of $(a^{m} - 1)$ and $(a^{n} - 1)$ is $(a^{HCF(m,n)} - 1)$.

Calculations:

$HCF(315, 25) = 5$

According to the concept,

$HCF \{(4^{315} - 1), (4^{25} - 1)\}$

$= (4^{\text{HCF}(315,\,25)} - 1)$

$= (4^5 - 1)$

$= 1024 - 1$

$= 1023$

Hence, The Required value is 1023.

---

41. Answer: a

Explanation:

Given:

2 successive discounts of 20% and 30%

Calculations:

Let the Marked price be 100.

SP after 1 st discount = 100 - 20 = 80

SP after 2 nd discount = 80 - 30% of 80 = 80 - 0.3(80)

= 80 - 24 = 56

So, The Ratio

= 100 : 56

= 25 : 14

∴ The Required ratio is 25 : 14.

Formula used:

⭐ Shortcut Trick

When 2 successive discounts X and Y are given -

Equivalent discount = (X + Y – XY/100)%

Calculation:

X = 20% and Y = 30%

Equivalent discount = [20 + 30 – (20 × 30)/100]%

= 50 – 6

= 44%

Let MP be 100

Then, after 44% discount

SP = 56

∴ MP : SP = 100 : 56

= 25 : 14

∴ **Required ratio is 25 : 14**

42. **Answer: a**

Explanation:

Given:

Height of triangle = 14 cm,

Area of Triangle = 56 cm²

And Base of triangle is 7/4 times the diameter of the circle.

Formula used:

Diameter = 2 × radius

Circumference of circle = 2πr

Area if triangle = (base × height)/2

Calculations:

According to the question,

Area of triangle = 56cm²

(Base × Height)/2 = 56

Base × 14 = 112

Base = 112/14

Base = 8 cm

Now, Diameter of circle = $\frac{7}{4}$ Base of triangle = 14 cm

So, Radius = Diameter/2 = 14/2 = 7 cm

Therefore, Circumference of circle

⇒ 2πr

⇒ 2 × $\frac{22}{7}$ × 7

⇒ 44cm

⇒ 44/100 m

⇒ 0.44 m

Hence, The Required value of Circumference is 0.44 m.

43. **Answer: c**

Explanation:

Given:

Speed of a boat in still water = 14 km/h

Distance covered = 80 km

Speed of the current = 6 km/h

Formulas used:

Speed downstream = Speed of boat + Speed of stream

Time = Distance/Speed

Calculation:

Downstream speed = 14 + 6 = 20 km/h

Let the time taken be = t

80 km/(20) = t

⇒ 4 = t

⇒ t = 4 h

∴ The Time taken by boat to travel 80 km downstream is 4 hours.

---

44. **Answer: d**

Explanation:

Given:

Total surface area of Cubes ratio = 4 9 : 81

Formula used:

The volume of cubes = a^3

The total surface area of the cube = $6a^2$

Where, a = Side of the cube

Calculation:

Let the side of the cubes are x and y, respectively

According to the question,

⇒ $6x^2 : 6y^2 = 49 : 81$

⇒ x : y = 7 : 9

The Ratio of Volume = $x^3 : y^3$

⇒ $(7)^3 : (9)^3$

⇒ 343 : 729

∴ **The required ratio of the volume is 343 : 729.**

---

45. **Answer: b**

Explanation:

Given:

Average of 4 consecutive numbers = 64.5

Calculations:

Let the 4 numbers be (a), (a + 1), (a + 2) and (a + 3)

So, the sum of these 4 numbers = 4a + 6

Now, According to question,

Average = 64.5

$\Rightarrow \frac{4a+6}{4}$ = 64.5

$\Rightarrow$ 4a + 6 = 258

$\Rightarrow$ a = 252/4

$\Rightarrow$ a = 63

Hence, Largest number = a + 3 = 63 + 3 = 66

∴ **The Largest number is 66.**

---

46. **Answer: b**

Explanation:

Given:

A certain sum amounts to 3 times in 13 years

Formula used:

Compound interest = Amount – Principal

Amount = P $\left(1+\frac{R}{100}\right)^{T}$

Where P, R and T are principal, rate and time respectively.

Calculation:

Let the sum be P.

Then,

Amount = P $\left(1+\frac{R}{100}\right)^{T}$

$\Rightarrow$ 3P = P $\left(1+\frac{R}{100}\right)$ 13

$\Rightarrow 3 = (1 + \frac{R}{100})$ 13

On squaring both sides, we get:

$\Rightarrow (3)^2 = \{(1 + \frac{R}{100})^{13}\}^2$

$\Rightarrow 9 = (1 + \frac{R}{100})$ 26

Hence, The time required to make the amount 9 times is 26 years.

∴ **The Required value of time is 26 years.**

---

47. **Answer: b**

Explanation:

Given:

2 : 5, 1 : 2, 8 : 15, 3 : 5

Calculations:

We need to make the denominator of each fraction same

So, LCM(5, 2, 15 and 5) = 30

Now, 30/5 = 6,

30/2 = 15,

30/15 = 2 and

30/5 = 6

Now, $\frac{2}{5} \times \frac{6}{6} = \frac{12}{30}$,

$\frac{1}{2} \times \frac{15}{15} = \frac{15}{30}$,

$\frac{8}{15} \times \frac{2}{2} = \frac{16}{30}$

And $\frac{3}{5} \times \frac{6}{6} = \frac{18}{30}$

Hence, 18 : 30 = 3 : 5 is the greatest.

∴ **The greatest ratio is 3 : 5.**

---

48. Answer: b

Explanation:

Given :

Four years ago, Shyam's age was $\frac{3}{4}$ times that of Ram.

Four years hence, Shyam's age will be $\frac{5}{6}$ times that of Ram

Calculation:

Four years ago ratio of Ram and Shyam's age = 4x : 3x

According to the question

$\frac{4x+8}{3x+8} = \frac{6}{5}$

⇒ 20x + 40 = 18x + 48

⇒ 2x = 8

⇒ x = 4

Hence, x = 4

Shyam's present age = 3 × 4 + 4 = 12 + 4 = 16 years

∴ **Present age of Shyam is 16 years.**

---

49. Answer: c

Explanation:

Given:

Pie-chart showing the number of students who played different sports.

Number of students

- Basketball 20%
- Tennis 35%
- Football 14%
- Cricket 21%
- others 10%
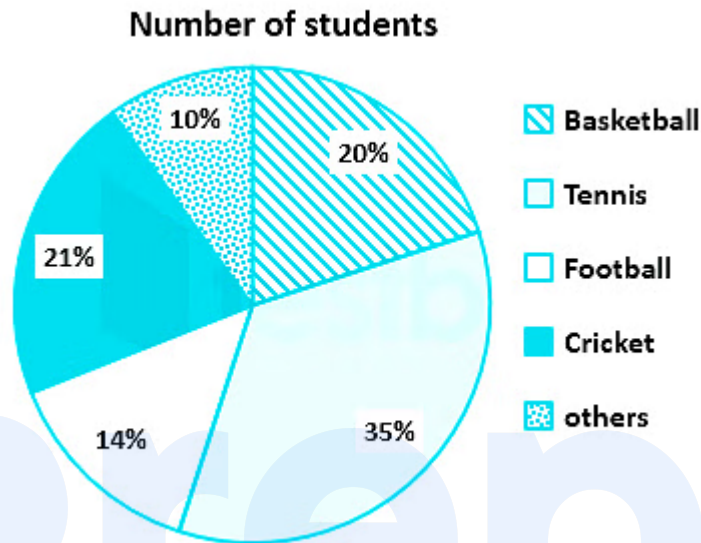
Calculations:

Total students = 500

Number of students who played cricket

= 21% of 500

= 0.21 × 500

= 105

Hence, The Required value is 105.

---

50. **Answer: c**

Explanation:

Given:

Bar graph representing the production of fans and coolers by a large company from year 1998 to 2001.

Calculations:

No. of fans produced in year 1998 is 23.

No. of coolers produced in year 2001 is 18

Now, the ratio = 23 : 18

Hence, The Required ratio is 23 : 18.

---

51. Answer: d

Explanation:

The correct answer is '**more splendid church in Italy**'

⭐ **Key Points**

- The error lies in **last part** of the sentence.
- Here both the adjectives are in comparative or superlative degree.
- Therefore, the use of 'more splendid' in **last** part should be replaced with 'most splendid' to make it grammatically correct.
- <u>Correct sentence</u>: In the delicacy and elaborateness of its ornament, it is the **most** splendid church in Italy.

---

52. Answer: d

Explanation:

The correct answer is 'No improvement required'

⭐ **Key Points**

- There is no error in the sentence.
- In the given options there is some or the other grammatical mistakes.
  Option 1) of the larger contributor: Here larger is used which makes the sentence less comparative.
  Option 2) off the largely contributor: Here 'off the largely' is completely incorrect with respect to the meaning of the sentence.
  Option 3) of largest contributors: Here the word 'the' is missing which is a very important of the sentence.
- <u>Correct sentence</u>: The fashion industry is one of the largest contributors to global warming.

---

53. Answer: d

Explanation:

The correct answer is 'directly'.

⭐ <u>Key Points</u>

- We have to find the appropriate option for the blank, we consider each option and analyze the sentences:
- Option 1) A large chunk of lemon crop grown in the country goes <u>director</u> to factories.
  Director is a person who directs something, but it does not justify the purpose of the sentence.
- Option 2) A large chunk of lemon crop grown in the country goes <u>directing</u> to factories.
  Directing is the act of direction in present tense but it does not justify the purpose of the sentence.
- Option 3) A large chunk of lemon crop grown in the country goes <u>directed</u> to factories.
  Directed is the act of direction in past tense but it does not justify the purpose of the sentence.
- Option 4) A large chunk of lemon crop grown in the country goes <u>directly</u> to factories.

Directly means with nothing in between and it makes perfect sense and fits into the sentence.

- <u>Correct sentence</u>: A large chunk of lemon crop grown in the country goes <u>directly</u> to factories.

---

54. Answer: b

Explanation:

The correct answer is 'No improvement required'

⭐ <u>Key Points</u>

- There is no error in the sentence.
- We analyze the given options:
  Option 1) is plan a: This part is in correct format; no changes can be done.
  Option 3) are planning a: This part is in correct format; no changes can be done.
  Option 4) will planning an: This part is in correct format; no changes can be done.
- <u>Correct sentence</u>: Neither Priya nor Rashmi is planning a trip.

---

55. Answer: a

Explanation:

The correct answer is 'address'.

⭐ <u>Key Points</u>

- We have to find the appropriate option for the blank, we consider each option and analyze the sentences:
- Option 1) If broadly beneficial immigration is to be sustained, destination countries must acknowledge and **address** the real risks that it raises.

Address means approach/considerwhich perfectly fits in the sentence.

- Option 2) If broadly beneficial immigration is to be sustained, destination countries must acknowledge and <u>speak</u> the real risks that it raises.
Speak means ability to say somethingbut it does not justify the purpose of the sentence.

- Option 3) If broadly beneficial immigration is to be sustained, destination countries must acknowledge and <u>perform</u> the real risks that it raises.
Perform means ability to function but it does not justify the purpose of the sentence.

- Option 4) If broadly beneficial immigration is to be sustained, destination countries must acknowledge and <u>disregard</u> the real risks that it raises.
Disregard means to ignore a nd we need a positive word to complete the meaning of the sentence.

- <u>Correct sentence</u>: If broadly beneficial immigration is to be sustained, destination countries must acknowledge and <u>address</u> the real risks that it raises.

---

56. **Answer: d**

Explanation:

The correct answer is **Granary**.

⭐ <u>Key Point</u>

- **A place for storing grain** is called a Granary.

  1) Treasury: A place for keeping money.
2) Apiary: A place for keeping bees.
  3) Aviary: A place for keeping birds.
  4) Granary: A place for storing grain.

Hence the correct answer is option 4)

---

57. Answer: b

Explanation:

The correct answer is -'**Elevate**'

⭐

Key Points

- ANTONYM means the word with opposite meaning.
- Demote means to move to lower rank.

The antonym for the word forthright is:
1) Break: It is neither the synonym nor antonym of demote.
2) Elevate: It is the opposite to d emote .
3) Disregard: It is neither the synonym nor antonym of demote.
4) Sack: It has the same meaning as demote.

Hence, the correct answer is option 2)

58. Answer: a

Explanation:

⭐

The correct answer is -'Shrewd '<u>Key Points</u>

- The word **"astute"** means **having or showing an ability to accurately assess situations or people and turn this to one's advantage, or being clever or intelligent.** (स्थितियों या लोगों का सही आकलन करने और इसे किसी के लाभ में बदलने या चतुर या बुद्धिमान होने की क्षमता होना या दिखाना।)
- An example sentence using "astute" is:

- "The **astute** businessman always knew the right time to invest in the stock market."
- The word **"shrewd"** means **having or showing sharp powers of judgment, being astute or clever in practical matters, or having a keen sense of self-interest.** (निर्णय की तेज शक्ति होना या दिखाना, व्यावहारिक मामलों में चतुर या चतुर होना, या स्वार्थ की गहरी भावना होना।)
- For example, you might say "The **shrewd** investor always knew when to buy and sell stocks to make a profit." In this context, "shrewd" refers to the investor's ability to make wise decisions based on their judgment and understanding of the market.
- **Option 2 ("dull")** is not correct, as it means lacking in brightness or excitement, or being slow-witted or boring. An example sentence using "dull" is: "The dull movie put me to sleep."
- **Option 3 ("impolite")** is not correct, as it means lacking in politeness or good manners. An example sentence using "impolite" is: "It would be impolite to interrupt someone while they're speaking."
- **Option 4 ("crude")** is not correct, as it means lacking in sophistication or being rough or rudimentary. An example sentence using "crude" is: "The artist's early sketches were crude and lacked detail."
- In summary, "**astute**" means **clever or intelligent**, while the other options have different meanings such as lacking brightness (dull), lacking politeness (impolite), or lacking sophistication (crude).
- Thus, the correct answer is **Option 1.**

---

59. **Answer: a**

Explanation:

The correct answer is 'No error'

⭐ **Key Points**

- The given sentence is grammatically correct and there are no errors in its syntax, vocabulary, or structure.

- The sentence is in the present tense, and it conveys a simple cause-and-effect relationship. It states that if kids sleep well, they are likely to behave better.
- **Let's analyze the given sentence and explain the correctness of each part based on grammar rules and syntax.**
- *The sentence is: "If your kids sleep well, they are likely to behave better."*
- "If your kids sleep well": This is a conditional clause that starts with the subordinating conjunction "if." In English grammar, a conditional clause typically consists of an "if" or "unless" clause followed by a main clause. In this case, "If your kids sleep well" is the conditional clause, and it is grammatically correct.
- "they are likely": This is the main clause of the sentence, and it follows the conditional clause. The subject "they" refers to "your kids," and the verb "are likely" indicates the probability or likelihood of a certain outcome. Grammatically, there is no error in this part.
- "to behave better": This is an infinitive phrase that acts as the complement to the verb "are likely." Infinitive phrases often function as noun phrases, adjectives, or adverbs in a sentence. In this case, "to behave better" acts as an adverbial phrase modifying the verb "are likely." It answers the question "in what way are they likely?" and indicates that the likelihood is tied to their behavior. This part is also grammatically correct.
- Therefore, the answer is "No error."
- Correct sentence: If your kids sleep well, they are likely to behave better.

60. **Answer: c**

Explanation:

The correct answer is **'gracious'.**

⭐ Key Points

- We have to find the appropriate option for the blank, we consider each option and analyze the sentences:
- Option 1) The man was horrid enough to thank her for all the hard work. **Horrid means very unpleasant** and we have to place a positive word to

complete the sentence. **बहुत अप्रिय या बुरा लगने वाला या हृदयहीन; अमनोहर**

- Option 2) The man was <u>repellent</u> enough to thank her for all the hard work. **Repellent means ability to repel a particular thing** and we have to place a positive word to complete the sentence. **कीड़ों आदि को भगाने वाला रासायनिक पदार्थ**
- Option 3) The man was <u>gracious</u> enough to thank her for all the hard work. **Gracious means courteous** which perfectly fits in the sentence. **(व्यक्ति या उसका आचरण) दयालु, नम्र और उदार**
- Option 4) The man was <u>attractive</u> enough to thank her for all the hard work. **Attractive means appealing** but it does not justify the purpose of the sentence. **दिलचस्प, मोहक; रुचिकर**
- <u>Correct sentence</u>: The man was <u>gracious</u> enough to thank her for all the hard work.

---

61. **Answer: c**

Explanation:

The correct answer is **Devious.**

⭐ <u>Key Points</u>

- The most appropriate antonym of the word **"Forthright"** is **"Devious" (option 3).**
- **"Forthright"** means to be direct, honest, and straightforward in speech or behavior. It refers to someone who expresses themselves openly and honestly, without ambiguity or deception.
    - Example: "Sarah is known for her **forthright** nature. She always speaks her mind and never hesitates to express her honest opinions."
- **"Devious"** means to be dishonest, cunning, or inclined to use underhanded methods. It is the opposite of the straightforwardness and honesty conveyed by "Forthright."
    - Example: "The con artist employed **devious** tactics to deceive unsuspecting victims."
- Therefore, the correct answer for the antonym of **"Forthright"** is **option 3) Devious.**

⭐ <u>Additional Information</u>

- The other options and their meanings are as follows:
- **Motivated:** This is not the antonym of "Forthright." "Motivated" means to be driven, enthusiastic, or determined to achieve something. It is unrelated to the straightforwardness or honesty conveyed by "Forthright."
    - Example: "John is a highly **motivated** individual who always strives to achieve his goals."
- **Upfront:** This is not the antonym of "Forthright" either. "Upfront" means to be honest, candid, or transparent about something, similar to "Forthright." However, it does not convey the sense of being direct or straightforward in the same way.
    - Example: "The salesperson was **upfront** about the potential risks involved in the investment."
- **Outspoken:** Although "Outspoken" shares some similarities with "Forthright" in terms of expressing opinions openly, it does not serve as a direct antonym. "Outspoken" refers to someone who freely expresses their opinions, even if they are controversial or unpopular. It does not imply deception or being indirect.
    - Example: "The politician is known for being **outspoken** on social issues, often expressing views that challenge the status quo."

---

62. **Answer: b**

Explanation:

The correct answer is- 'Yesterday'

⭐ <u>Key Point</u>

- The **correct spelling** according to the English dictionary is **YESTERDAY**.

We consider the given options:
1) Yseterday: The letters 's' and 'e' are interchanged.
2) Yesterday: It is the correct spelling.
3) Ystrday: The letter 'e' is missing twice in the spelling.
4) Yestarday: The 'a' between t and r should be replaced an 'e'.

Hence **the correct answer is option 2)**

---

63. Answer: b

Explanation:

The correct answer is **Unrealistic plan**.

⭐ <u>Key Points</u>

- The most appropriate meaning of the given idiom '**Castle in the air**' is '**Unrealistic plan**'.
- **Castle in the air**: Something that is not possible or not real.
  - *Example: Before you start building **castles in the air**, just think how much all this is likely to cost.*
- Therefore, as per the points mentioned above, we find that the correct answer is Option 2.

---

64. Answer: d

Explanation:

The correct answer is '**The final problem in a series of problems that makes the situation intolerable**'.

⭐ <u>Key Points</u>

- The most appropriate meaning of the given idiom '**The last straw**' is 'The final problem in a series of problems that makes the situation intolerable'.
- The last straw: The final problem, setback, or source of irritation in a series that causes one to finally lose patience.
  - *Example: He told me that was **the last straw** and broke up with me.*
- Therefore, as per the points mentioned above, we find that the correct answer is Option 4.

65. **Answer: d**

Explanation:

The correct answer is School.

⭐ **Key Point**

- **A group of fish is called a School or Shoal.**

1) Troop: A group of soldiers.
2) Bunch: A group of things.
3) Litter: A group of small animals.
4) School: A group of fish.

Hence **the correct answer is option 4)**

66. **Answer: c**

Explanation:

The correct answer is -'**suppress**'

⭐

Key Points

- The verb **"rejuvenate"** means **to restore, refresh or revitalize something or someone to a youthful or healthy state.** (ताजगी लाना)
  - For example: After a long vacation, I feel **rejuvenated** and ready to tackle my work again.
- **"Update"** means to make something more modern or up-to-date. (अद्यतन)
- **"Replenish"** means to refill or restore something that has been used up. (पूरा करना)

- **"Suppress"** (दबाना) means to prevent or restrain something. It is the opposite of "rejuvenate" as it involves inhibiting or limiting something instead of restoring it.
- **"Revive"** means to bring back to life or consciousness. (पुनर्जीवित करना)
- In summary, out of the given options, "suppress" is the most appropriate antonym of "**rejuvenate**," as it involves preventing or limiting something instead of restoring or refreshing it.
- Therefore, the correct answer is: **suppress**.

---

67. **Answer: b**

Explanation:

The correct answer is 'No improvement required'

⭐ **Key Points**

- There is no error in the sentence.
- **Option 1**: "organisms founding in" - This option is not grammatically correct. The verb "founding" is not the correct form of the verb to use in this context, and there is no subject for the verb. The phrase "organisms founding in" does not convey the intended meaning and is not a valid improvement over the original sentence.
- **Option 2**: "No improvement required" - This option is correct. The original sentence is grammatically correct and conveys the intended meaning. There is no need to make any changes to the underlined part of the sentence.
- **Option 3:** "organism find in" - This option is not grammatically correct. The verb "find" should be changed to its correct form "found," which is the past participle form of the verb. Additionally, the singular "organism" is not the correct subject to use with the plural "found," so the phrase "organism found in" would be a better improvement over this option.
- **Option 4:** "organisms found with" - This option is not grammatically correct. The preposition "with" does not accurately convey the intended meaning of the sentence, which is to describe the location where the amoeba can typically be found. The phrase "organisms found with" does not provide any context or

clarification for where the organism can be found, so it is not a valid improvement over the original sentence.

Therefore, the correct option is 2) "No improvement required."

- Correct sentence: Amoeba is a microscopic single-celled organism found in pond water.

---

68. Answer: b

Explanation:

The correct answer is 'The students was'

⭐ Key Points

- The error lies in the word 'The students was'.
- We use 'were' with plural and 'was' with singular.
- In the given sentence instead of 'was', 'were' should be used because students are plural.
- Correct sentence: The students were given the task of penning down a short write-up.

---

69. Answer: b

Explanation:

The correct answer is- 'Orderly'

⭐ Key Points

- The most appropriate synonym for **"tidy"** is **"orderly"** (option 2).
- **Tidy** means **neat and well-organized**, while **orderly** means **arranged or organized in a neat and tidy manner.**
- Both words convey the same sense of being well-kept and well-maintained.

- The other options and their meanings are:
- **Muddy** - covered or filled with mud, dirt or grime. This word is the opposite of "tidy".
  - Example: The rain made the streets **muddy** and difficult to walk on.
- **Petty** - of little importance, trivial, insignificant.
  - Example: She didn't want to argue about **petty** issues.
- **Nominal** - in name only, very small or insignificant.
  - Example: He held a **nominal** position in the company.
- In conclusion, the word "**orderly**" is the most appropriate synonym for "**tidy**", as both words convey the same meaning of being well-organized and well-kept.
- Thus, the correct answer is **Option 2.**

---

70. Answer: d

Explanation:

The correct answer is '**We have to rely on meaningful content now.**'

⭐ **Key Points**

- According to the English dictionary the correct spellings are '**rely**' and '**content**'. Option 1) We have to relie on meaningful content now: Only one spelling is corrected.
  Option 2) We have to rely on meaningful cuntent now: Only one spelling is corrected.
  Option 3) We have to rely on meaningful contont now: Only one spelling is corrected.
  Option 4) We have to rely on meaningful content now: Both the spellings are corrected.
- Correct sentence: We have to **rely** on meaningful **content** now.

---

71. Answer: c

Explanation:

The correct answer is 'talk'.

We place each option to the given sentence and then choose the correct option:
1) Customise: When it's your idea, you want to <u>customise</u> about it all the time.
2) Express: When it's your idea, you want to <u>express</u> about it all the time.
3) Talk: When it's your idea, you want to <u>talk</u> about it all the time.
4) Meet: When it's your idea, you want to <u>meet</u> about it all the time.
Since, 'talk' is suitable in the given sentence and makes sense, so it is correct.

Hence **the correct answer is option 3)**

---

72. Answer: d

Explanation:

The correct answer is 'promoting'.

We place each option to the given sentence and then choose the correct option:
1) leaning: I know there shouldn't be any shame in <u>leaning</u> your work, but it's such a task to draw the line.
2) demoting: I know there shouldn't be any shame in <u>demoting</u> your work, but it's such a task to draw the line.
3) asking: I know there shouldn't be any shame in <u>asking</u> your work, but it's such a task to draw the line.
4) promoting: I know there shouldn't be any shame in <u>promoting</u> your work, but it's such a task to draw the line.
Since, 'promoting' is suitable in the given sentence and makes sense so it is correct.

Hence the correct answer is option 4)

---

73. Answer: c

Explanation:

The correct answer is **'Option 3'** i.e. **'More'**.

⭐ <u>**Key Points**</u>

- The sentence structure suggests that the speaker is expressing frustration or annoyance about having to worry about promotion in their work related to social media.
- **To convey this sentiment, the word "more" fits in the context and helps convey the idea that the problem becomes even more convoluted due to the nature of their work.**
- The word **"convoluted"** is **used to** describe the nature of the problem in relation to the speaker's work related to social media.
- The word **"convoluted" means** intricate, complex, or difficult to understand.
- In this **context,** using **"more" before the adjective "convoluted"** emphasizes that the problem becomes even more intricate or complex when it is related to the speaker's work in social media.

Therefore, the **correct sentence** is: *In my case, since my work is all things related to social media, this problem gets even* **more** *convoluted.*

---

74. **Answer: b**

Explanation:

The correct answer is 'constantly'.

- The author is discussing the difficulty of promoting their work on social media. Since their work is related to social media, they are constantly thinking about it and trying to determine when it is okay to promote their work.
- The author mentions that it's their idea, which suggests that they are invested in it and want it to succeed. This may be why they constantly worry about promoting it - they want to ensure that their work gets the attention it deserves.

- The speaker is expressing frustration over constantly having to worry about when it's okay to promote their work on social media.
- Here, "constantly" implies that this is an ongoing and frequent concern for the speaker.
- Overall, the author's line of work and personal investment in their idea make it difficult for them to draw the line between promoting their work and being too self-promotional.

We place each option to the given sentence and then choose the correct option:

1) occasionally: Long story short, I hate that I <u>occasionally</u> have to worry about when it's okay to promote

2) constantly: Long story short, I hate that I <u>constantly</u> have to worry about when it's okay to promote

3) rarely: Long story short, I hate that I <u>rare</u>ly have to worry about when it's okay to promote

4) never: Long story short, I hate that I <u>never</u> have to worry about when it's okay to promote

Since, 'constantly' is suitable in the given sentence and makes sense so it is correct.

Hence the correct answer is option 2)

---

75. **Answer: a**

Explanation:

The correct answer is 'not'.

⭐ <u>Key Points</u>

The most appropriate option to fill in blank number 5 is "not" (1).

- The sentence structure suggests that the speaker hates having to worry about when it's okay to promote, and when it's not okay to promote.
- Adding "not" in the blank completes the sentence in a logical and coherent manner.

⭐ Additional Information

- **none**: This option does not fit well in the context of the sentence. "None" implies the absence of something, but in this case, the speaker is expressing frustration about having to worry about when it's okay to promote. Using "none" would not convey the intended meaning.
- **nothing**: This option also does not fit well in the context. "Nothing" implies the absence of anything to worry about, which contradicts the speaker's frustration about the need to worry about promotion.
- **no**: This option is also not suitable in this context. "No" would create a sentence structure issue if used in the blank. It would result in a grammatically incorrect phrase: "I hate that I have to worry about when it's okay to promote, and when it's no."
- Therefore, "not" (1) remains the most appropriate option to fill in the blank. It maintains the intended meaning and fits well within the sentence structure.

---

76. **Answer: b**

Explanation:

The correct answer is **neutralisation reaction.**

⭐ Key Points

- **Neutralisation reaction**
  - A neutralization reaction is a chemical reaction in which an **acid and base react together to form salt and water as products.**
  - In a neutralization reaction, there is a combination of **H+ ions and OH− ions which form water.**
  - Neutralization reaction examples:
    - Formation of Sodium Chloride (Common Salt)
      HCl + NaOH → NaCl + H2O
    - Titration methods using phenolphthalein
  - Applications of a neutralization reaction are:
    - Titration method

- Wastewater treatment
- Nanomaterial synthesis

⭐ <u>Additional Information</u>

- **Combination reaction**
  - A combination reaction is a chemical reaction where **substances synthesize to generate a new substance.**
  - In combination reactions, **two or more substances combine to form a new compound.**
  - Combination reactions are **also referred to as synthesis reactions.**
  - The equation can be expressed:
    - A + B --> AB
- **Displacement reaction**
  - A displacement reaction is the one wherein **the atom or a set of atoms is displaced by another atom in a molecule.**
  - The general equation is:
    - A + B–C → A–C + B
  - There are two types f displacement reactions:
    - **Single displacement reaction**
    - **Double displacement reaction**
- **Decomposition reaction**
  - A decomposition reaction can be defined as a chemical reaction in which **one reactant breaks down into two or more products.**
  - The general equation is:
    - AB -> A + B
    - AB is the parent molecule (reactant) and A & B are the product molecules.

---

77. **Answer: d**

Explanation:

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

⭐ <u>Key Points</u>

- Ashoka
  - Ashoka was the most well-known **Mauryan emperor.**
  - He was the first leader to attempt to reach the populace through **inscriptions** .
  - He wrote his messages on pillars of stone so that everyone may read them.
  - The majority of Ashoka's inscriptions were inscribed in **Prakrit** and used the **Brahmi** script.
  - On **pillars and rocks** , he inscribed the dhamma's fundamentals.

⭐ <u>Additional Information</u>

- Chandragupta
  - A founding member of the Mauryan dynasty was Chandragupta.
  - He was the **first emperor** to place the majority of India under a single rule.
  - He is recognized with rescuing the nation from poor leadership and liberating it from foreign rule.
- Brihadratha
  - The **last emperor** of the **Mauryan Empire** was Brihadratha.
  - He was king between **187** and **185 BCE.**
  - Pushyamitra Shunga, his own general, committed the murder.
- Bindusara
  - **Chandragupta Maurya** and **Durdhara** were the parents of Bindusara.
  - He served as the **Maurya dynasty's second king.**
  - He virtually conquered the whole Indian peninsula by uniting **sixteen nations** under the Mauryan Empire.
  - The Arabian Sea and the Bay of Bengal refer to him as the **"conqueror of Land between the Two Seas."**

---

78. **Answer: a**

Explanation:

The correct answer is <u>Amish Tripathi.</u>

⭐ <u>Key Points</u>

- **'The Immortals of Meluha'** is the **first book of Amish Tripathi.**
- It is the **first book of Amishverse,** and also the **first book of the Shiva Trilogy.**
- The book was **published in February 2010.**
- The second book in the series, **'The Secret of the Nagas'**, was released in August 2011.
- The third book, titled '**The Oath of the Vayuputras**', was released in February 2013.
- It has been **translated into a number of languages** like English (South Asia), Odia, Hindi, Marathi, Bengali, Gujarati, etc.
- It had sold around **45,000 copies across India.**
- The story is set in the land of Meluha and starts with the arrival of the Shiva.
- The Meluhans believe that Shiva is their fabled savior Neelkanth.

⭐ <u>Additional Information</u>

- **Amish Tripathi** is an **Indian author.**
- He is known for his book series **Shiva Trilogy and Ram Chandra Series.**
- The **Shiva Trilogy was the fastest-selling book series** in Indian publishing history.
- The Ram Chandra series was the second fastest-selling book series in Indian publishing history.
- Amish's books have sold over **6 million copies in the Indian** subcontinent since 2010.
- Awards and recognition:
    - 21st Century Icon Awards, London (2021)
    - Golden Book Award - Legend of Suheldev (2022)
    - Listed among Top-50 Most Powerful People by India Today (2019)

---

79. **Answer: c**

Explanation:

The correct answer is <u>**Meghalaya.**</u>

⭐ <u>Key Points</u>

- One of the most significant festivals observed in the state of Meghalaya is the **Behdienkhlam Festival.**
- The phrase **"drive away the wicked spirits/demons of plagues/cholera"** is what the word "Behdienkhlam" means.
- Prior to the rainy season, which also marks the end of the planting season, it is observed.
- This harvest festival is celebrated in order to please the gods and ensure a plentiful harvest.
- It lasts for **four days** straight.

⭐ <u>Additional Information</u>

- **Uttar Pradesh**
  - Fairs and celebrations that contribute to the unique identity of the state are:
    - Sardhana Christian Fair, Meerut
    - Kailash Fair, Agra
    - Ganga Mahotsava, Varanasi
    - Janmashtmi Fair, Mathura
    - Parikramas, Ayodhya
- **West Bengal**
  - Fairs and celebra tions that contribute to the unique identity of the state are:
    - Durga pooja
    - Jamai Shashti
    - Charak Puja
    - Posh Sankranti
    - Poila Baisakh
- **Jharkhand**
  - Fairs and celebrations that contribute to the unique identity of the state are:
    - Kunda Mela

- Chatra Mela
- Lawalong Mela
- Sangharo Mela
- Tutilawa Mela.

---

80. **Answer: a**

Explanation:

The correct answer is <u>1935.</u>

⭐ <u>Key Points</u>

- Reserve Bank of India (RBI)
    - India's central bank is known as the **Reserve Bank of India (RBI).**
    - In **1935** , the RBI was established as a private company; however, in **1949** , it became a national institution.
    - A **central board of directors** that is selected by the federal government oversees the reserve bank.
    - The Indian rupee is issued and supplied under the control of the central bank.
    - It also manages the finances of the national government.
    - The central bank oversees the banking industry in its capacity as the bankers' bank.
    - By assisting the government with its development initiatives and policies, it also contributes significantly to India's development story.

⭐ <u>Additional Information</u>

- **State Bank of India (SBI)**
    - The State Bank of India was established on **July 1st, 1955.**
    - In 1955, the Indian government nationalized the Imperial Bank of India, with the Reserve Bank of India acquiring a **60% interest.**
    - The name State Bank of India was announced in place of the **Imperial Bank of India.**

- The largest state-owned provider of banking and financial services in India is SBI.
- The customer receives banking services from the bank.

---

81. Answer: b

Explanation:

The correct answer is **Hemp.**

⭐ **Key Points**

- Hemp
    - Hemp is the **soft, durable, naturally produced plant fibre.**
    - It is cultivated from **plants of the Cannabis genus.**
    - These plants are **cultivated for industrial purposes including biodegradable plastics, construction, food, fuel, paper, textiles, pharmaceuticals, etc.**
    - It is one of the fastest-growing plants and was one of the first plants to be spun into fibre about 10,000 years ago.
    - Even today the demand for this product is very high and is **used to make ropes, sacks etc.**

⭐ **Additional Information**

- Fibre crop
    - Fibre crops are crops that are primarily **grown for obtaining fibre.**
    - The fibre is traditionally **used to make paper, cloth, or rope.**
    - These fibre crops are very **high in their length, width, tenacity, uniformity, spinning pliability and flexibility.**
    - Fiber crops are generally harvestable after a single growing season.
    - The different sources of plant fibres are **cotton, jute, coir, hemp and flax.**

---

82. Answer: a

Explanation:

The correct answer is <u>United States of America.</u>

⭐ <u>Key Points</u>

- The United States was represented by the **United States Olympic & Paralympic Committee (USOPC)** at the 2020 Summer Olympics in Tokyo.
- The country finished the Games with **113 medals** , the most amongst all nations: **39 gold, 41 silver, and 33 bronze.**
- USwon the maximum number of medals at 2020 Summer Olympic Games (played in 2021)
- These individual totals were each the highest of the Games.
- This was the third consecutive Summer Olympics that the U.S. was the medal table leader.
- The medal total was slightly lower than five years prior in Rio de Janeiro, where the United States won 46 gold and 121 total medals.

⭐ <u>Additional Information</u>

- Here's how many medals each country has:
  - **United States: 113 medals (39 gold, 41 silver, 33 bronze)**
  - **China: 88 medals (38 gold, 32 silver, 18 bronze)**
  - **ROC: 71 medals (20 gold, 28 silver, 23 bronze)**
  - **Great Britain: 65 medals (22 gold, 21 silver, 22 bronze)**
  - **Japan: 58 medals (27 gold, 14 silver, 17 bronze)**

---

83. **Answer: a**

Explanation:

The correct answer is <u>1611.</u>

⭐ <u>Key Points</u>

- Mehrunnisa

- Mehrunnisa was **born in 1577 in Qandahar.**
- She was the **daughter of Mirza Ghiyas Beg and Asmat Begum.**
- She was the chief wife and empress consort of the Mughal emperor Jahangir.
- She was the **twentieth and last wife of the Jahangir.**
- **After Mehrunnisa got married to Emperor Jahangir, in 1611 she received the title of Nur Jahan.**
- Nur Jahan was a powerful and influential woman in the court.
- She was more decisive and proactive than her husband.
- She is considered by some historians to have been the real power behind the throne for more than fifteen years.

⭐ Additional Information

- Jahangir
  - **Nur-ud-Din Muhammad Salim** is known by his imperial name Jahangir.
  - He was the **fourth Mughal Emperor.**
  - He **ruled from 1605 until his death in 1627.**
  - Prince Salim was the **third son born to Akbar and his favorite Queen Mariam-uz-Zamani.**
  - Jahangir was fascinated with art and architecture.
  - Salim ascended to the throne with the title of **Nur-ud-din Muhammad Jahangir Badshah Ghazi.**

84. **Answer: c**

   Explanation:

   The correct answer is <u>**Vitamin B.**</u>

   ⭐ <u>Key Points</u>

   - Beriberi
     - **Beriberi is a disorder** that can occur when a person has a **lack of thiamine or vitamin B-1.**

- A severe deficiency in this nutrient can lead to lasting damage to the nervous system and heart.
- There are two main forms of beriberi:
  - **Wet beriberi, which mainly affects the cardiovascular system**
  - **Dry beriberi, which primarily affects the nervous system**
- The symptoms of beriberi include:
  - **Difficulty in walking**
  - **Numbness or tingling in hands and feet**
  - **Muscle weakness or paralysis**
  - **Confusion**
  - **Difficulty in speaking**
  - **Vomiting**

⭐ <u>Additional Information</u>

- **Vitamin A**
  - Vitamin A is an important vitamin that plays a **major role in our vision.**
  - It helps in the production of certain pigments that are important for the proper functioning of the retina.
  - **Night blindness** is one of the first signs of vitamin A deficiency.
- **Vitamin K**
  - There are two main kinds of vitamin K.
    - **Vitamin K1** (phylloquinone) comes from plants, especially leafy green vegetables like spinach and kale.
    - **Vitamin K2** (menaquinone) is naturally created in the intestinal tract and works similarly to K1.
  - Vitamin K plays an **important role in coagulation, better known as blood clotting.**
  - Clotting is a process that helps prevent excessive bleeding both inside and outside the body.
- **Vitamin C**
  - Vitamin C is essential for the **formation, growth, and repair of bone, skin, and connective tissue.**
  - It is also essential for the **normal function of blood vessels.**
  - Vitamin C helps maintain **healthy teeth and gums.**
  - It also **helps burns and wounds heal.**

○ Good sources of vitamin C include **citrus fruits, tomatoes, potatoes, broccoli.**

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85. **Answer: b**

Explanation:

The correct answer is <u>**Tabla.**</u>

⭐ <u>Key Points</u>

- Tabla musician, composer, percussionist, music producer and actor Ustad Zakir Hussain hails from India.
- He is **Ustad Alla Rakha's oldest son** , a tabla player.
- In **1988** , he received the **Padma Shri** , and in **2002** , he received the **Padma Bhushan.**
- In **1990** , he also received the **Sangeet Natak Akademi Award.**
- He received the National Heritage Fellowship from the National Endowment for the Arts of the United States in 1999.
- The line "Zakir Hussain Tabela Ivaltana" in the Tamil song "Telephone Manipol" in the Indian film directed by S.Shankar is a tribute to him.

⭐ <u>Additional Information</u>

- Hindustani classical harmonium player **R. K. Bijapure** was from India.
- Indian classical musician and **santoor player Pandit Shivkumar Sharma** played both instruments.
- Sharma received the **Padma Shri in 1991** , the Padma Bhushan in 2001, and the Sangeet Natak Akademi Award in 1986.
- Indian classical **flautist** and music director **Hariprasad Chaurasia** plays the flute.
- In 1984, he was awarded the Sangeet Natak Academy, and in 1992, the Padma Bhushan.

---

86. Answer: d

Explanation:

The correct answer is **Kerala.**

⭐ **Key Points**

- The **sex ratio** is the demographic concept that measures the **proportion of males to females in a given population.**
- In India, It is usually measured as the **number of females per 1000 males.**
- The ratio is expressed as in the form of 990:1000, wherein in this example there would be 990 females for every 1000 males in a population.
- The Indian census 2021 state-wise shows that **Kerala represents the highest sex ratio.**
- Kerala has 1084 females per 1000 males.

⭐ **Additional Information**

- **Sex Ratio of India 2021 Census States**

State Rank	Name of state	Sex Ratio of India 2021
1	Kerala	1084
2	Puducherry	1038
3	Tamil Nadu	995
4	Andhra Pradesh	992
5	Chhattisgarh	991
6	Manipur	987

87. Answer: c

Explanation:

The correct answer is <u>Govind Ballabh Pant.</u>

⭐ <u>Key Points</u>

Govind Ballabh Pant

- **Govind Ballabh Pant** was an **Indian freedom fighter and the first chief minister of Uttar Pradesh.**
- Pant was a key figure in the movement for India's Independence and later a pivotal figure in the Indian Government.
- He was one of the foremost political leaders of Uttar Pradesh.
- He was a key player in the movement to establish Hindi as the national language of the Indian Union.
- He **abolished the Zamindari System** in Uttar Pradesh.
- He served as the **Union Home Minister from 1955 to 1961.**
- He received India's highest civilian honor, the **Bharat Ratna on 26 January 1957.**

⭐ <u>Additional Information</u>

Zamindari System

- **Lord Cornwallis introduced the Zamindari System** under his Permanent Settlement Act.
- The three major components of the Zamindari System were – **British, Zamindar (Landlord) and peasants.**
- The system recognized the **zamindars as landowners.**
- The zamindars let out their lands to tenant farmers in return of a share of the produce.
- The zamindar, in turn, had to pay a fixed sum to the British Government.
- This led to a lot of exploitation of the peasants.

---

88. **Answer: a**

Explanation:

The correct answer is **difference between birth rate and death rate.**

⭐ <u>Key Points</u>

- Growth rate of Population
  - Population growth rate is the **change in the number of individuals over a specific period of time.**
  - It can also be defined as the **difference between birth rate and death rate.**
  - There will be growth in population if the birth rate is higher than death rate.
  - Population growth rate can be interpreted over any time period.
  - For example, annual population growth refers to population growth in a year, bi-annual is measuring growth twice a year.

⭐ <u>Additional Information</u>

- The world population increased from **1 billion in 1800 to 7.9 billion.**
- The world population growth rate declined from **2.2% per year 50 years ago to 1.0% per year.**
- Globally the average population density is **61 people per km2.**
- To calculate the Population Growth (PG) we find the difference (subtract) between the initial population and the population at Time 1, then divide by the initial population and multiply by 100.
- The Population Growth Rate (PGR) for that period of time (10 years) was 12%.

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89. **Answer: c**

Explanation:

The correct answer is <u>**Monsoon.**</u>

⭐ <u>Key Points</u>

- The **climate of India** is described as a **monsoon type.**
- This type of climate is found in **south and southeast Asia.**
- However, there are variations in climatic conditions in the country itself.
- The coastal regions of India show the least amount of difference between the temperatures of night and day.
- Tropic of Cancer passes through the middle of Rann of Kuchchh in the west to Mizoram in the east.
- Therefore, the climate of India has characteristics of both **tropical and sub-tropical climates.**

⭐ <u>Additional Information</u>

- Mediterranean
    - Mediterranean climate can be characterized by **hot, dry summers and cool, wet winters.**
    - It is located between about **30° and 45° latitude north and south of the Equator and on the western sides of the continents.**
    - It occurs in southern and **southwestern Australia, central Chile, coastal California, the Western Cape of South Africa.**
    - More than half of the total Mediterranean climate regions on earth occur on the Mediterranean Sea.
- Temperate
    - Temperate regions are found between the Tropic of Cancer and Tropic of Capricorn.
    - It generally has four different seasons such as **spring, summer, autumn, and winter.**
    - This type of climate generally found in **Lima (Peru), Mexico City (Mexico), Nairobi (Kenya).**
- Polar
    - The polar climate regions are characterized by a **lack of warm summers but with varying winters.**
    - Every month in a polar climate has an average temperature of less than 10 °C (50 °F).
    - Regions with polar climate cover more than **20% of the Earth's area.**

90. **Answer: b**

Explanation:

The correct answer is <u>Tamil Nadu.</u>

⭐ <u>Key Points</u>

- **2021–22 Syed Mushtaq Ali Trophy** was the **fourteenth edition** of Syed Mushtaq Ali Trophy.
- It **started on 4 November 2021** with the **final taking place on 22 November 2021.**
- The tournament was originally scheduled to be started on 20 October 2021.
- It was postponed to 27 October 2021 but eventually started on 4 November 2021.
- **Final** was played between **Karnataka and Tamil Nadu.**
- **Tamil Nadu won** the Syed Mushtaq Ali (cricket) Trophy, 2021-22.
- The teams were initially divided into five groups, with seven teams each in Groups A and B, and eight each in Groups C, D and E.

⭐ <u>Additional Information</u>

- The Syed Mushtaq Ali Trophy is a **domestic Twenty20 cricket championship in India.**
- It is organized by the **Board of Control for Cricket in India (BCCI)** , among the teams from the **Ranji Trophy.**
- It is named after the famous Indian test cricketer, Syed Mushtaq Ali.
- The 2006-2007 inaugural season of this trophy was won by Tamil Nadu under the captaincy of Dinesh Karth.
- The BCCI launched its own state structure in the 2006-07 season with **27 Ranji teams.**
- It was divided into five Zones with the name of the Inter-State T20 Championship.
- It was renamed and relaunched as the Syed Mushtaq Ali Trophy.

91. **Answer: d**

Explanation:

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

⭐ <u>Key Points</u>

- **Govind dev ji temple** is one of the ancient and **historical temples in and around Vrindavan.**
- This temple was **built by Raja Man Singh during 1590.**
- He **used Red sand-stones** to build this temple.
- This has enjoyed great historical and spiritual significance for nearly **500 years.**
- Govind dev ji temple is known for its architectural beauty.
- The **lord of the temple is Shri Krishna.**
- Originally the temple had 7 floors when completed.

⭐ <u>Additional Information</u>

- **Jain temples of Jaisalmer are carved out of yellow sandstone.**
- Due to the golden yellow sandstone-built architectonic heritage the Jaisalmer is popularly known as 'The Golden City'.
- **Birla Mandir** refers to different Hindu temples or Mandirs built by the Birla family, in different cities across India.
- All these temples are magnificently built, some of them in **white marble or in sandstone.**
- **Dilwara Jain Temple, Birla Mandir, Paul's Cathedral, Golden Temple** are some of the temples carved using white sandstone.

92. **Answer: b**

Explanation:

The correct answer is <u>Uttar Pradesh.</u>

⭐ <u>Key Points</u>

- **The Mahanadi basin** extends over the states of **Chhattisgarh and Odisha and smaller portions of Jharkhand, Maharashtra and Madhya Pradesh.**
- It **drains an area of 1,41,589 Sq.km** which is nearly 4.3% of the total geographical area of the country.
- The geographical extent of the basin lies between **80º28' and 86º43' east longitudes and 19º8' and 23º32' north latitudes.**
- The basin has a maximum **length and width of 587 km and 400 km.**
- It is bounded by the Central India hills on the north, by the Eastern Ghats on the south and east and by the Maikala range on the west.

⭐ <u>Additional Information</u>

- The **Mahanadi** is one of the **major rivers of the country** and among the peninsular rivers.
- It originates from a pool, 6 km from the Farsiya village of the Dhamtari district of Chhattisgarh.
- The total length of the river from origin to its outfall into the Bay of Bengal is **851 km.**
- The major part of the basin is covered with agricultural land accounting to 54.27% of the total area and 4.45% of the basin is covered by water bodies.
- The basin s **preads over 27 parliamentary constituencies** comprising 13 of Odisha, 11 of Chhattisgarh, and 1 each of Maharashtra, Jharkhand and Madhya Pradesh.

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93. **Answer: a**

Explanation:

The correct answer is **<u>Kalbelia.</u>**

⭐ <u>Key Points</u>

- Kalbelia
  - **Kalbelia dance** is a **folk dance of Rajasthan** state of India.

- It is well known by other names like **'Sapera Dance' or 'Snake Charmer Dance'.**
- Kalbelia dance is particularly performed by a **Rajasthani tribe called 'Kalbelia'.**
- In this dance, males play various traditional instruments and females perform the dance.
- Kalbelia dance is one of the most sensuous dances among all Rajasthani dances.

⭐ <u>Additional Information</u>

- Kathak
  - A dance of **northern India, Kathak** is often a dance of love.
  - It is **performed by both men and women.**
  - The movements include intricate footwork accented by bells worn around the ankles.
  - It was **originated by Kathakas,** professional storytellers who used a mixture of dance, song, and drama.
- Bharatanatyam
  - **Bharatanatyam is a dance of Tamil Nadu** in southern India.
  - It traces its origins back to the Natyashastra, an ancient treatise on theatre written by the mythic priest Bharata.
  - Bharatanatyam often is used to express Hindu religious stories and devotions.
  - The dance movements are characterized by bent legs, while feet keep rhythm.
  - Hands may be used in a series of mudras, or symbolic hand gestures, to tell a story.
- Odissi
  - **Odissi is indigenous to Orissa in eastern India.**
  - It is predominantly a dance for women, with postures that replicate those found in temple sculptures.
  - Odissi is **believed to be the oldest of the surviving Indian classical dances.**
  - Odissi is a very complex and expressive dance, with over fifty mudras.

94. Answer: c

Explanation:

The correct answer is <u>Mahatma Gandhi.</u>

⭐ <u>Key Points</u>

- **Bhagat Singh, Rajguru and Sukhdev** were tried for Saunders' murder which is also known as the Lahore conspiracy case which was to avenge the death of Lala Lajpat Rai.
- They were found guilty and sentenced to death.
- They were **hanged on 23 March, 1931.**

⭐ <u>Additional Information</u>

- Lahore conspiracy case
  - 1915 **Lahore Conspiracy Case trial or First Lahore Conspiracy Case,** was a **series of trials** held in Lahore and in the United States.
  - There were **nine cases in total.**
  - The trial was held by a Special tribunal constituted under the Defence of India Act 1915.
  - Out of a total of 291 convicted conspirators, **42 were executed, 114 got life sentences and 93 got varying terms of imprisonment.**
  - **42** defendants in the trial **were acquitted.**
  - **152 persons** were made **accused.**
  - The uncovering of the conspiracy also saw the initiation of the Hindu German Conspiracy trial in the United States.

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95. Answer: b

Explanation:

The correct answer is <u>25 years.</u>

⭐ **Key Points**

- Sameer can contest Lok Sabha elections at the age of 25.
- The qualifications to participate in the Lok Sabha election are as follows:
  - The candidate **must be a citizen of India.**
  - The candidate **must be at least 25 years of age.**
  - He/she **should not have been sentenced to imprisonment.**
  - The person **should not be declared as insolvent by banks or courts of the country.**

⭐ **Additional Information**

- Parliamentary general elections (Lok Sabha)
  - All of India's adult citizens cast votes to elect members of the Lok Sabha.
  - Only their constituency is open to adult citizens of India.
  - Winners of the Lok Sabha elections are referred to as " **Members of the Parliament.** "
  - They remain in office for a period of five years or until the President, acting on the counsel of the council of ministers, dissolves the body.
  - To choose the **543 members of the Lok Sabha** , elections are held once every **five years.**

96. **Answer: d**

Explanation:

The correct answer is <u>Jammu and Kashmir.</u>

⭐ **Key Points**

- Tejasvini scheme
  - For girls, Nirmala Sitharaman has introduced two J&K Bank programmes called **"Tejasvini & Hausala Schemes."**
  - As part of the credit score outreach initiative in Jammu, Tejaswini Scheme was introduced.

- The scheme's objective is to provide younger women with financial assistance of up to **Rs 5 lakh.**
- The financial assistance is for creating profitable self-employment companies that are appropriate for their skills, aptitude, and local circumstances.
- Tejasvini scheme focuses on providing financial assistance of **Rs. 5 lakh** to women between the ages of **18 and 35** so they can start their own business.

⭐ Additional Information

- 'Hausla Scheme'
  - It was launched under J&K Trade Promotion Organisation.
  - It aims to empower, motivate existing women entrepreneurs so that they will become role models in their respective sectors.
  - The scheme will offer skill development, credit support, marketing support, and mentorship guidance.
- 'Shikhar & Shikara Schemes '
  - The Shikhar scheme focus on meeting credit requirements up to **Rs. 2 crores** for the hotel, tour & tourism industry.
  - The Shikhara scheme aims to offer credit support to purchase shikara, restore and maintain shikara and houseboats.
  - For this, the collateral-free term loans with repayment option of **EMI in 7 years** will be granted.
  - The Shikhara scheme will offer credit support up to **Rs. 15 lakh** to purchase or repair Shikaras.

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97. **Answer: d**

Explanation:

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

⭐ Key Points

- A fungal illness called **athlete's foot (tinea pedis)** typically starts between the toes.
- Numerous fungus, including species of **Trichophyton, Epidermophyton, and Microsporum** are responsible for athlete's foot.
- The illness is often transmitted through contact with infected skin or environmental fungus.
- Additionally, if you scratch or pick at the diseased areas of your foot, it may spread to other body parts.
- Bacterial infections can occasionally result from it.

⭐ <u>Additional Information</u>

- List of diseases caused by a **virus**
    - Ebola
    - Chickenpox
    - COVID-19
- List of diseases caused by a **bacteria**
    - Tetanus
    - Tuberculosis
    - Cholera
- List of diseases caused by **the genetic disorder**
    - Down syndrome
    - Turner Syndrome
    - Trisomy 13

98. **Answer: c**

Explanation:

The correct answer is <u>Article 26.</u>

⭐ <u>Key Points</u>

Article 26 - Freedom to manage religious affairs

- Every religious denomination or branch thereof shall have the right to establish and maintain institutions for religious and charitable purposes:
  - to manage its own affairs in matters of religion,
  - to own and acquire real estate, both movable and immovable,
  - to administer such real estate in accordance with the law, subject to public order, morality, and health.

Article 21

⭐ **Additional Information**

- Article 21 of the constitution of India states:
  - Protection of life and personal liberty
  - No person shall be deprived of his life or personal liberty except according to procedure established by law

Article 20

- Article 20 of the constitution of India states:
  - No person shall be punished for the same offence more than once.
  - No person accused of any offence shall be compelled to be a witness against himself.

Article 23

- Article 23 of the constitution of India states :
  - Traffic in human beings and begar and other similar forms of forced labour are prohibited
  - Nothing in this article shall prevent the State from imposing compulsory service for public purposes.
  - In imposing such service the State shall not make any discrimination on the ground of race, religion, caste or class.

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99. **Answer: d**

Explanation:

The correct answer is <u>Harnaaz Sandhu.</u>

⭐ <u>Key Points</u>

- Harnaaz Sandhu
    - **Miss Universe 2021** is an Indian model, actress, and beauty pageant winner named **Harnaaz Kaur Sandhu.**
    - Prior to this, Sandhu had won the title of **Miss Diva Universe 2021.**
    - She is the **third Miss Universe winner from India.**
    - She started taking part in pageants as a teenager.
    - **Miss Chandigarh 2017** and **Miss Max Emerging Star India 2018** are among the titles she has won.
    - She finished as a semifinalist at Femina Miss India 2019 and was named **Femina Miss India Punjab in 2019.**

⭐ <u>Additional Information</u>

- Adline Castelino
    - Adline Mewis Quadros Castelino is an **Indian model and beauty pageant titleholder.**
    - **She was crowned as Miss Diva Universe 2020.**
    - She **represented India at Miss Universe 2020**, where she placed as the third runner-up.
- Andrea Meza
    - Alma Andrea Meza Carmona is a **Mexican model and beauty pageant titleholder who was crowned Miss Universe 2020.**
    - She became the **third Mexican woman to be crowned Miss Universe.**
    - She had previously been crowned **Mexicana Universal 2020 and Miss Mexico 2017.**
- Nadia Ferreira
    - Nadia Tamara Ferreira is a **Paraguayan fashion model** and beauty pageant titleholder who was crowned Miss Universe Paraguay 2021.
    - Ferreira had previously been crowned **Miss Teen Universe Paraguay 2015.**

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100. **Answer: a**

Explanation:

The correct answer is **R Muthukannammal.**

⭐ <u>**Key Points**</u>

- **R Muthukannammal**
  - ○ Baisali Mohanty R Muthukannammal is a **seventh-generation veteran Sadir dancer from the Indian State of Tamil Nadu.**
  - ○ She is the **only surviving person among the 32 Devadasis** who served the deity at the Viralimalai Murugan temple.
  - ○ She is the **last woman to have the ceremony pottukkattutal of dedicating oneself to God performed at the Viralimalai temple.**
  - ○ **In the year 2022** , Govt of India honored Muthukannammal by conferring the **Padma Shri award for her contributions in the field of art.**
  - ○ The dance form Sadir also called as Sadiraattam or Parathaiyar Aattam or Thevarattam is a classical Indian dance from.
  - ○ It which was reinvented, modified and rechristened as Bharatanatyam.

⭐ <u>**Additional Information**</u>

- **Manjamma Jogati**
  - ○ Manjamma Jogathi is an **Indian Kannada theatre actress, singer and dancer of Jogathi Nritya** .
  - ○ In 2019, she became the **first transgender woman to be the president of Karnataka Janapada Academy.**
  - ○ **In January 2021** , Government of India announced **Padma Shri award** for her contribution to the field of folk arts.
- **Rukmini Devi Arundale**
  - ○ Rukmini Devi Arundale was an **Indian dancer and choreographer of the Indian classical dance form of Bharatanatyam.**
  - ○ She was the **first woman in Indian history to be nominated as a member of the Rajya Sabha.**
  - ○ She was awarded the **Padma Bhushan in 1956 and the Sangeet Natak Akademi Fellowship in 1967.**

- Rukmini Devi features in **India Today's list of '100 People Who Shaped India'.**
- **Baisali Mohanty**
  - Baisali Mohanty is an **Indian classical dancer and choreographer.**
  - She is the founder of Oxford Odissi Centre which is involved in the promotion and training of Odissi dance at the University of Oxford.
  - She is an ALC Global Fellow for the year 2015–16 affiliated with the University of Oxford.