Prepp

Your Personal Exams Guide

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

SSC MTS Previous Year Paper (Held on: 22 Oct 2017 Shift 1)

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

Instructions

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

1.) A total of 90 minutes is allotted for the examination.

2.) The server will set your clock for you. In the top right corner of your screen, a countdown timer will display the remaining time for you to complete the exam. Once the timer reaches zero, the examination will end automatically. The paper need not be submitted when your timer reaches zero.

3.) There will, however, be sectional timing for this exam. You will have to complete each section within the specified time limit. Before moving on to the next section, you must complete the current one within the time limits.

General English

1. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.   (+1, -0.25)

   The court chose to (1)/ restrained on the issue (2)/ of disqualification. (3)/ No error (4).

   a. 1

   b. 2

   c. 3

   d. 4

---

2. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.   (+1, -0.25)

   It must be conceded as an event (1)/ of flagrant violations of the Constitution or (2)/ complete disregarded for constitutional norms. (3)/ No error (4).

   a. 1

   b. 2

   c. 3

   d. 4

---

3. In the following question, the sentence given with blank to be filled in with an appropriate word.Select the correct alternative out of the four and indicate it by selecting the appropriate option.   (+1, -0.25)

   I would die _ _ _ _ _ _ I lie.

   a. before

   b. till

   c. until

d. since

---

4. In the following question, the sentence given with blank to be filled in with an appropriate word.Select the correct alternative out of the four and indicate it by selecting the appropriate option.

   (+1, -0.25)

   They refuse _ _ _ _ _ _ work for their living.

   a. to

   b. of

   c. for

   d. from

---

5. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word.

   (+1, -0.25)

   UMPTEEN

   a. Limited

   b. Calculable

   c. Countless

   d. Measurable

---

6. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word.

   (+1, -0.25)

   MANIA

   a. Balance

   b. Madness

   c. Reasoned

   d. Hatred

---

7. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word.

(+1, -0.25)

PALE

a. Bright

b. Colourless

c. Glowing

d. Radiant

8. In the following question, out of the given four alternatives, select the one which is opposite in meaning of the given word.

(+1, -0.25)

ANARCHIC

a. Lawless

b. Disordered

c. Turbid

d. Normal

9. Select the most appropriate antonym of the given word.

(+1, -0.25)

PROBITY

a. Fidelity

b. Deceit

c. Equity

d. Justice

10. In the following question, out of the given four alternatives, select the one which is opposite in meaning of the given word.

(+1, -0.25)

CONTEST

a. Challenge

b. Stillness

c. Trial

d. Tournament

---

11. In the following question, out of the four given alternatives, select the alternative which best   (+1, −0.25)
    expresses the meaning of the Idiom/Phrase.

    Put two and two together

    a. To do things in reverse order

    b. To figure something out from the information available

    c. Joint operation of killing

    d. To start a movement

---

12. In the following question, out of the four given alternatives, select the alternative which best   (+1, −0.25)
    expresses the meaning of the Idiom/Phrase.

    Heart to heart talk

    a. Heartbeat

    b. Candidly

    c. Secretly

    d. Occasionally

---

13. Improve the bracketed part of the sentence.   (+1, −0.25)

    (Admit) to the errors of judgment so far is essential for a genuine course correction.

    a. Admitting

    b. Admitte

    c. Admits

d. No improvement

---

14. Improve the bracketed part of the sentence.   (+1, -0.25)

But whatever advantages may have accrued to this former president (was) lost.

a. is

b. were

c. had

d. No improvement

---

15. In the following question, out of the four given alternatives, select the alternative which is the   (+1, -0.25)
    best substitute of the phrase.

One who lends money at higher ROI.

a. Dishonorer

b. Interferer

c. Usurer

d. Discoverer

---

16. In the following question, out of the four given alternatives, select the alternative which is the   (+1, -0.25)
    best substitute of the phrase.

A person who loves everybody.

a. Socialist

b. Capitalist

c. Feminist

d. Altruist

---

17. In the following question, a word has been written in four different ways out of which only one   (+1, -0.25)
    is correctly spelt. Select the correctly spelt word.

a. Elementary

b. Elemantary

c. Elementory

d. Elementery

---

18. In the following question, a word has been written in four different ways out of which only one is correctly spelt. Select the correctly spelt word.   (+1, -0.25)

a. Illitrate

b. Illiterate

c. Elliterate

d. Alliterateion

---

19. Rearrange the parts of the sentence in correct order.   (+1, -0.25)

Birds also

P: the danger

Q: to warn about

R: give alarm calls

a. PQR

b. RQP

c. QRP

d. QPR

---

20. Rearrange the parts of the sentence in correct order.   (+1, -0.25)

Glass jars and

P: bottles are dried well

Q: filing them with pickles

R: in the sun before

a. PRQ

b. RPQ

c. QPR

d. QRP

---

21. In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives. (+1, -0.25)

The female education in India is highly necessary for the _ _ _ _ _ _ of the country as women are the first teachers of their children means future of the nation. If education of the women is getting _ _ _ _ _ _, it would be the ignorance of bright future of the nation. An uneducated women cannot actively participate in handling the family, proper care of the children and thus _ _ _ _ _ _ future generation. We cannot count all the advantages of the women education. An educated women may easily handle her family, make each family member _ _ _ _ _ _, infuse good qualities in children, participate in the social works and all would lead her _ _ _ _ _ _ the socially and economically healthy nation.

the _ _ _ _ _ _ of the country

a. future

b. present

c. ancient

d. past

---

22. In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives. (+1, -0.25)

The female education in India is highly necessary for the _ _ _ _ _ _ of the country as women are the first teachers of their children means future of the nation. If education of the women is getting _ _ _ _ _ _, it would be the ignorance of bright future of the nation. An uneducated women cannot actively participate in handling the family, proper care of the children and thus _ _ _ _ _ _ future generation. We cannot count all the advantages of the women education. An educated women may easily handle her family, make each family member _ _ _ _ _ _, infuse good qualities in children, participate in the social works and all would lead her _ _ _ _ _ _ the socially and economically healthy nation.

women is getting _____,

a. ignored

b. favoured

c. looked

d. appreciated

---

23. In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives. (+1, -0.25)

The female education in India is highly necessary for the _____ of the country as women are the first teachers of their children means future of the nation. If education of the women is getting _____, it would be the ignorance of bright future of the nation. An uneducated women cannot actively participate in handling the family, proper care of the children and thus _____ future generation. We cannot count all the advantages of the women education. An educated women may easily handle her family, make each family member _____, infuse good qualities in children, participate in the social works and all would lead her _____ the socially and economically healthy nation.

children and thus _____ future

a. strong

b. weakening

c. amazing

d. rich

---

24. In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives. (+1, -0.25)

The female education in India is highly necessary for the _____ of the country as women are the first teachers of their children means future of the nation. If education of the women is getting _____, it would be the ignorance of bright future of the nation. An uneducated women cannot actively participate in handling the family, proper care of the children and thus _____ future generation. We cannot count all the advantages of the women education. An educated women may easily handle her family, make each family member _____, infuse good qualities in children, participate in the social works and all would lead her _____ the socially and economically healthy nation.

each family member _ _ _ _ _ _,

a. ignorant

b. immature

c. responsible

d. stubborn

---

25. In the following passage some of the words have been left out. Read the passage carefully   (+1, -0.25)
and select the correct answer for the given blank out of the four alternatives.

The female education in India is highly necessary for the _ _ _ _ _ _ of the country as women
are the first teachers of their children means future of the nation. If education of the women
is getting _ _ _ _ _ _, it would be the ignorance of bright future of the nation. An uneducated
women cannot actively participate in handling the family, proper care of the children and
thus _ _ _ _ _ _ future generation. We cannot count all the advantages of the women
education. An educated women may easily handle her family, make each family member
_ _ _ _ _ _, infuse good qualities in children, participate in the social works and all would lead
her _ _ _ _ _ _ the socially and economically healthy nation.

would lead her _ _ _ _ _ _ the socially

a. of

b. about

c. off

d. towards

26. In the following question, select the number which can be placed at the sign of question mark (?) from the given alternatives.

(+1, -0.25)

2	3
5	20

3	4
2	18

5	4
6	?

a. 15

b. 20

c. 30

d. 60

---

27. How many triangles are there in the given figure?

(+1, -0.25)

a. 3

b. 4

c. 5

d. 6

---

28. A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'D' can be represented by 02, 30, etc., and 'Z' can be represented by 00, 77, etc. Similarly, you have to identify the set for the word "SNAKE".

(+1, -0.25)

Matrix-I

	0	1	2	3	4
0	Z	C	D	G	X
1	G	A	N	H	V
2	U	O	Y	K	T
3	D	G	W	L	R
4	A	E	U	C	K

Matrix-II

	5	6	7	8	9
5	F	R	O	T	W
6	K	M	J	C	S
7	L	P	Z	Y	D
8	F	E	J	A	N
9	U	W	Q	V	X

a. 69, 12, 11, 23, 86

b. 43, 95, 40, 45, 23

c. 69, 12, 88, 12, 41

d. 32, 89, 55, 67, 34

---

29. From the given answer figures, select the one in which the question figure is hidden/embedded.

(+1, -0.25)

a.

b.

c.

d.

---

30. Which answer figure will complete the pattern in the question figure?

(+1, -0.25)

a.

b.

c.

d.

---
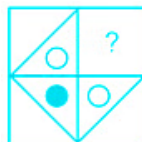
31. If a mirror is placed on the line AB, then which of the answer figures is the right image of the given figure?   (+1, –0.25)

a.

b.

c.

d.

---
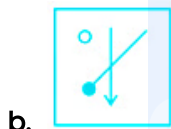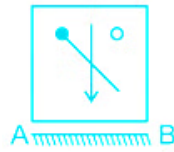
32. A piece of paper is folder and punched as shown below in the question figures. Form the given answer figures, indicate how it will appear when opened?   (+1, –0.25)

a.
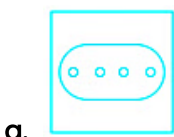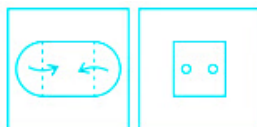
b.

c.

d.

---

33. If 'A' means '+', 'B' means '−', 'C' means '×' and 'D' means '÷', then which of the following equation is true?

    (+1, −0.25)

    a. 8 B 8 A 8 C 8 = −54

    b. 19 B 2 A 6 C 54 D 9 = 53

    c. 12 A 4 C 6 D 3 = 22

    d. 4 A 36 B 12 D 6 = 34

---

34. If 3 A 2 A 1 = 36 and 5 A 2 A 3 = 900, then 4 A 2 A 2 = ?

    (+1, −0.25)

    a. 289

    b. 576

    c. 256

    d. 100

---

35. Arrange the given words in the sequence in which they occur in the dictionary.

    (+1, −0.25)

    1. Hand

    2. Hang

    3. Hinge

4. Hinted

5. Hilly

a. 12534

b. 12543

c. 12354

d. 12345

---

36. In the following question, select the missing number from the given series. **(+1, -0.25)**

4, 7, 13, 22, ?, 49

a. 32

b. 34

c. 33

d. 31

---

37. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series. **(+1, -0.25)**

la, mc, ne, ?

a. pg

b. qf

c. og

d. pf

---

38. In the following question, select the odd word from the given alternatives. **(+1, -0.25)**

a. Liquid

b. Wood

c. Coal

d. Rubber

---

39. In the following question, select the odd number from the given alternatives. **(+1, -0.25)**

   a. 256

   b. 576

   c. 626

   d. 676

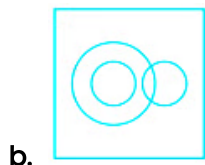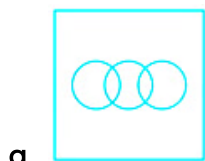40. In the following question, select the odd letters from the given alternatives. **(+1, -0.25)**

   a. ik

   b. ac

   c. pr

   d. mp

---

41. Identify the diagram that best represents the relationship among the given classes. **(+1, -0.25)**

   Father, Male, Writer

   a.

   b.

c.

d.

---

42. In the following question, select the related word pair from the given alternatives. **(+1, -0.25)**

Pressure : Pascal : : ? : ?

a. Distance : Time

b. Time : Second

c. Distance : Kilometre

d. Time : Speed

---

43. In the following question, select the related number from the given alternatives. **(+1, -0.25)**

814 : 418 : : 927 : ?

a. 278

b. 729

c. 812

d. 928

---

44. In the following question, select the related letters from the given alternatives. **(+1, -0.25)**

man : ncq : : tap : ?

a. ors

b. ucr

c. ucs

d. uds

---

45. In the following question, select the word which cannot be formed using the letters of the given word.   **(+1, −0.25)**

HERALDED

a. DEAD

b. HEAR

c. DRIED

d. HEARD

---

46. Amit remembers his examination is after 11 th September. His friend remembers that Amit's examination is before 14 th September. On which date of September is Amit's examination?   **(+1, −0.25)**

a. 12

b. 13

c. 11

d. 12 or 13

---

47. Apple tree is 16th from either end in a row of trees. How many trees are there in the row?   **(+1, −0.25)**

a. 31

b. 32

c. 30

d. 33

---

48. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts, read all the conclusions and then decide which of the given conclusion logically follows the given statements.   **(+1, −0.25)**

Statements:

I. Some pencils are pens.

II. Some pens are red.

Conclusions:

I. Some pencils are red.

II. Some red are pens.

a. Only conclusion (I) follows.

b. Only conclusion (II) follows.

c. Both conclusion follow.

d. Neither conclusion (I) nor conclusion (II) follows.

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49. In a certain code language, "HIDE" is written as "KLGH". How is "KNOT" written in that code language?   (+1, -0.25)

   a. NPRV

   b. NQRV

   c. MQSV

   d. NQRW

---

50. In a certain code language, "JET" is written as "33" and "MET" is written as "36". How is "SIX" written in that code language?   (+1, -0.25)

   a. 52

   b. 51

   c. 50

   d. 53

Numerical Aptitude

51. If N = √7 – √3, then what is the value of (1/N)?   (+1, –0.25)

    a. √7 + √3

    b. (√7 + √3)/4

    c. 4(√7 + √3)

    d. (√7 + √3)/2

---

52. How many positive factors of 64 are there?   (+1, –0.25)

    a. 5

    b. 7

    c. 4

    d. 8

---

53. How many numbers are there from 209 to 285 divisible by both 9 and 4?   (+1, –0.25)

    a. 2

    b. 3

    c. 4

    d. 5

---

54. What is the value of $\dfrac{(6.3)^3 + (1.1)^3}{(6.3)^2 - 6.3 \times 1.1 + (1.1)^2}$ (+1, –0.25)

    a. 7.4

    b. 5.2

    c. 7.2

    d. 6.8

55. Which of the following statement(s) is/are true? (+1, -0.25)

I. 3/7 > 4/5

II. 4/7 > 3/2

  a. Only I

  b. Only II

  c. Both I and II

  d. Neither I nor II

56. What is the unit digit of $2^{47} \times 3^{23}$? (+1, -0.25)

  a. 2

  b. 4

  c. 8

  d. 6

57. Aman and Raman together can do a work in 10 days. Aman alone can do the work in 12 days. In how many days can Raman alone do the work? (+1, -0.25)

  a. 70

  b. 50

  c. 60

  d. 80

58. Three taps A, B and C can fill a tank in 120, 80 and 96 minutes respectively. If all the taps are opened together, then in how many minutes will the tank be filled? (+1, -0.25)

  a. 35

  b. 32

c. 43

d. 42

---

59. What is the area (in cm ^{2}) of an equilateral triangle whose side is 8 cm?　　　　(+1, -0.25)

a. 16√3

b. 15√3

c. 16

d. 45

---

60. If the difference between discount of 40% and two successive discounts of 20% on a certain article is Rs. 64, then what is the price (in Rs) of the article?　　(+1, -0.25)

a. 1500

b. 1280

c. 1440

d. 1600

---

61. If a businessman marks the price of goods 20% more than their cost price and allows a discount of 30%, then what is his gain or loss percent?　　(+1, -0.25)

a. 10%, Profit

b. 16%, Loss

c. 16%, Profit

d. 25%, Profit

---

62. The ratio of two numbers is 1 : 3. If their difference is 144, then what is the smallest number?　　(+1, -0.25)

a. 24

b. 128

c. 48

d. 72

---

63. Of three positive numbers, the ratio of first and second is 3 : 4, that of second and third is 5 : 6 and the product of second and third is 4320. What is the sum of the three numbers?   (+1, -0.25)

    a. 531

    b. 177

    c. 405

    d. 117

---

64. The average of 5 consecutive numbers is 8. If previous 5 numbers are also included, then what will be the new average?   (+1, -0.25)

    a. 5

    b. 5.5

    c. 4.5

    d. 6

---

65. By Selling 4 articles for 1 rupee, a man profits 25%. Had he sold 6 articles per rupee, then what will be the loss percentage?   (+1, -0.25)

    a. 33.33

    b. 16.67

    c. 25

    d. 40

---

66. An article was sold at 35% gain. Had it been sold for Rs 600 more, then the gain would have been 40%. What is the cost price (in Rs) of the article?   (+1, -0.25)

a. 12000

b. 13200

c. 12500

d. 14000

67. A man spends 70% of his income and saves the rest. If his income decreases by 30% and spending decreases by 20%, then what is the percentage change in his savings? **(+1, −0.25)**

a. 66.66% decrease

b. 53.33% decrease

c. 75% increase

d. 40% decrease

68. A price is increased by 16.66%. To obtain the old price, by how much should it be decreased? **(+1, −0.25)**

a. 14.28

b. 16.66

c. 30

d. 33.32

69. The speed of a stream is 9 km/hr. A boat goes 21 km and comes back to the starting point in 8 hours. What is the speed (in km/hr) of the boat in still water? **(+1, −0.25)**

a. 10

b. 12

c. 8

d. 15

70. A 400 metre long train crosses a 200 metre long platform. If the speed of train 30 km/hr, then what is the time taken (in seconds) to cross the platform?   (+1, -0.25)

    a. 70

    b. 75

    c. 72

    d. 80

71. The population of a town increases at the rate of 10% per annum. If the present population of the town is 266200, then what was the population 3 years ago?   (+1, -0.25)

    a. 220000

    b. 200000

    c. 2500000

    d. 1500000

72. The table given below shown the number of students admitted in 2 sections X and Y from Year 2011 to 2015.   (+1, -0.25)

Year	Section X	Section Y
2011	50	52
2012	60	65
2013	72	50
2014	80	58
2015	62	64

What is the percentage change in the number of students admitted in section X from year 2011 to 2013?

a. 22

b. 50

c. 44

d. 72

73. The table given below shown the number of students admitted in 2 sections X and Y from Year 2011 to 2015.

(+1, -0.25)

Year	Section X	Section Y
2011	50	52
2012	60	65
2013	72	50
2014	80	58
2015	62	64

In which two years was the difference in the number of students admitted in the two sections was same?

a. 2011 and 2012

b. 2013 and 2014

c. 2011 and 2015

d. Options 2 and 3 both

74. The table given below shown the number of students admitted in 2 sections X and Y from Year 2011 to 2015.   (+1, -0.25)

Year	Section X	Section Y
2011	50	52
2012	60	65
2013	72	50
2014	80	58
2015	62	64

In year 2012, the number of students admitted in section Y is what percent of that of the number of students admitted in section X?

a. 108.33

b. 65

c. 60

d. 200

75. The table given below shown the number of students admitted in 2 sections X and Y from Year 2011 to 2015.

(+1, -0.25)

Year	Section X	Section Y
2011	50	52
2012	60	65
2013	72	50
2014	80	58
2015	62	64

What is the percentage change in the number of students admitted in section Y from year 2011 to 2014?

a. 13.81

b. 11.54

c. 6

d. 58

General Awareness

76. Which of the following is characterised by small and scattered units which are largely outside the control of the government? **(+1, -0.25)**

    a. Unorganised sector

    b. Organised sector

    c. Both organised and unorganised sector

    d. Neither organized nor unorganised sector

---

77. An asset that the borrower owns and uses this as a guarantee to the lender until the loan is repaid is called _ _ _ _ _ _. **(+1, -0.25)**

    a. Credit

    b. Collateral

    c. Loan

    d. Bond

---

78. The constitution of India recognises the right to water as being a part of Right to _ _ _ _ _. **(+1, -0.25)**

    a. Equality

    b. Freedom

    c. Freedom of Religion

    d. Life

---

79. Who among the following is an example of political executive? **(+1, -0.25)**

    a. Income tax commissioner

    b. District collector

    c. Prime minister

d. Superintendent of police

---

80. Who was the court poet of Samudragupta? (+1, -0.25)

a. Banabhatta

b. Harishen

c. Chand Bardai

d. Bhavabhuti

---

81. Where was the All India Muslim League formed? (+1, -0.25)

a. Hyderabad

b. Lahore

c. Dhaka

d. Calcutta

---

82. What is the approximate duration of moon's rotation around the Earth? (+1, -0.25)

a. 26 Days

b. 24 Days

c. 28 Days

d. 30 Days

---

83. What is the duration of season of retreating monsoon (Autumn) in India? (+1, -0.25)

a. March to May

b. October and November

c. December to February

d. June to September

---

84. Night blindness is due to _ _ _ _ _ _.   (+1, -0.25)

   a. Less drinking of water

   b. Excess secretion of pineal gland

   c. Vitamin A deficiency

   d. Inheritance by X-chromosome

---

85. With which of the following the frog respires during hibernation?   (+1, -0.25)

   a. Lungs only

   b. Partly by lungs and partly by skin

   c. Both skin and lungs

   d. Skin only

---

86. About how much blood is there in the circulatory system of an average person?   (+1, -0.25)

   a. 7 liters

   b. 2 liters

   c. 5 liters

   d. 13 liters

---

87. Which law of Newton defines the 'force'?   (+1, -0.25)

   a. Newton's third law of motion

   b. Newton's first law of motion

   c. Newton's second law of motion

   d. Newton's law of gravitation

---

88. The mirror used in automobiles to see the rear field of view is _ _ _ _ _ mirror. (+1, -0.25)

   a. concave

   b. convex

   c. plane

   d. none of these

89. The smallest unit of a digital image is a _ _ _ _ _ _. (+1, -0.25)

   a. Pixel

   b. Pallette

   c. Array

   d. Loop

90. Acids are mostly stored in containers made of _ _ _ _ _ _. (+1, -0.25)

   a. Soil

   b. Glass

   c. Metals

   d. None of these

91. The molecular formula of common salt is _ _ _ _ _ _ _ _. (+1, -0.25)

   a. Na_2SO_4

   b. $CaCl_2$

   c. $MgCl_2$

   d. NaCl

92. What type of interaction is necessary for the survival of both the partners in association?   (+1, -0.25)

   a. Symbiosis

   b. Amensalism

   c. Parasitism

   d. None of these

93. What is the range of monthly fixed pension (in Rs) under Atal Pension Yojana?   (+1, -0.25)

   a. 500 – 1000

   b. 1000 – 3000

   c. 1000 – 5000

   d. 5000 – 10,000

94. Who among the following discovered the structure of an atom?   (+1, -0.25)

   a. Ernest Rutherford

   b. John Dalton

   c. A. Lavoisier

   d. Mendeleev

95. Who is the first Indian woman to win an Olympic medal?   (+1, -0.25)

   a. P.T Usha

   b. Karnam Malleswari

   c. P.V Sindhu

   d. Soma Biswas

96. Most of the temples of Nagara-style consisted of which of the following?   (+1, -0.25)

    a. Shikharas

    b. Garbhagriha

    c. Mandapa

    d. All options are correct

---

97. Which play won the Sahitya Akademi Award 2016?   (+1, -0.25)

    a. Maila Anchal

    b. Swarajbir

    c. Vannadhasan

    d. Dogri

---

98. Who is the author of the book named "Satyartha Prakash"?   (+1, -0.25)

    a. Sarojini Naidu

    b. Amrita Pritam

    c. Swami Dayanand

    d. Sameer Kochhar

---

99. What is the name of initiative unveiled by India and South Korea to promote and facilitate Korean investments in India?   (+1, -0.25)

    a. Korea Addition initiative

    b. Korea Plus initiative

    c. Korea surplus initiative

    d. Korea total initiative

---

100. What is the name of military doctrine developed by the Indian Armed Forces to put to use   (+1, -0.25)
in case of war with Pakistan?

    a. Cold Start

    b. Meghdoot

    c. Shaurya

    d. Ratle

Answers

1. Answer: b

Explanation:

Correct option - 2

Here, concept of to + infinitive verb is brought under consideration. Infinitive verbs are not adjusted according to the subject. It means main verb is used as it is. Hence, its correct form is **to+V1** . Thus, replace **restrained** with **restrain.** So, option 1 is the correct answer.

Correct sentence - The court chose to restrain on the issue of disqualification.

2. Answer: c

Explanation:

Correct option - 3

Here, concept of adverb is brought under consideration. Since, adverb is used to before a verb in order to give a clearer meaning of the verb. But, two verbs cannot come together. Hence, replace **complete** with **completely.** So, option 3 is the correct answer.

Correct sentence - It must be conceded as an event of flagrant violations of the Constitution or completely disregarded for constitutional norms.

3. Answer: a

Explanation:

Correct option - 1

Here, concept of preposition is brought under consideration.

Firstly, let's find out the meaning of given options :-

Before - Earlier than someone or something.

Till - Up to the time of; until.

Since - From then till now; between a particular past time and the present.

Note :- **Until** is more formal than **till.**

Since, the prepositions like till, until and since show the time till the present, whereas 'before' show time occurred earlier to present time. It is a phrase that I would die but not speak a lie. Hence, option 1 i.e. **before** is the correct answer.

Correct sentence - I would die before I lie.

---

4. **Answer: a**

Explanation:

Correct option - 1

Here, concept of to + infinitive verb is brought under consideration. Infinitive verbs are not adjusted according to the subject. It means main verb is used as it is. Hence, its correct form is **to+V1**. So, option 1 i.e. **to** is the correct answer.

Note :- Preposition **for** is used with verb+ing.

Correct sentence - They refuse to work for their living.

---

5. **Answer: c**

Explanation:

Correct option - 3

Firstly, let's find out the meaning of 'umpteen' :- People or things in large amount usually innumerable; uncountable; countless.

Let's find out the meaning of given options :-

Limited - Something that is within the limits; restricted

Calculable - Something that is calculated; measured.

Measurable - Something that is measured. It means it is not countless.

Clearly, word **countless** best expresses the meaning of the given word 'umpteen'. Hence, option 4 i.e. **countless** is the correct answer.

---

6. Answer: b

Explanation:

Correct option - 2

- Firstly, we'll find out the meaning of ' **mania** ':- An excessive excitement or enthusiasm; craze; a mental illness.

- Now, check the meaning of the given options:-
- **Balance** - Equal; same; etc.
- **Madness** - State of being mad; insanity; senseless; craziness.
- **Reasoned** - Based on a reason or logic; sensible.
- **Hatred** - Great dislike; hostility; enmity.
- Clearly, the word **madness** best expresses the meaning of the given word 'mania'.

Hence, option 2 i.e. **madness** is the correct answer.

7. Answer: b

Explanation:

Correct option - 2

Firstly, let's find out the meaning of 'pale' :- Someone or something which is very dull, light-colored; colourless; not bright.

Now, words bright, glowing and radiant give the same meaning rich and warm in colours; shining; having light; bright.

Clearly, word **colourless** best expresses the meaning of 'pale'. So, option 2 i.e. **colourless** is the correct answer.

8. **Answer: d**

   Explanation:

   Correct option - 4

   Firstly, let's check the meaning of given word 'anarchic' :- A group, organisation or government that is not regulated by law; or they do not follow the law; lawless; disordered; turbid.

   Now, find the meaning of other given option -

   Normal - Regular; natural; free from any disorder.

   Clearly, the word **normal** is the most opposite in meaning of the given word 'anarchic'. So, option 4 i.e. **normal** is the correct answer.

9. **Answer: b**

   Explanation:

   The correct answer is Option 2.

   ⭐ **Key Points**

   - Let's look at the meaning of the given word and the marked option-
     - Probity: Honesty; integrity and uprightness
       Example: *He asserted his innocence and his financial* ***probity*** *.*
     - Deceit: The act of hiding the truth for the purpose of misleading; fraud; duplicity.
       Example: *They have been involved in a campaign of* ***deceit*** *.*

   - Now let's look at the meaning of other given options-
     - **Fidelity** : Loyalty; strict observance of promises, duties, etc.
     - **Equ** ity: The quality of being fair or impartial; fairness; justness.
     - Justice: The quality of being fair; righteousness.

10. **Answer: b**

    Explanation:

    Correct option - 2

Firstly, let's find out the meaning of 'contest' :- A race, conflict, other competition between rivals, as for a prize; challenge; trial; tournament.

Now, find out the meaning of other given options :-

Stillness - Silence; quiet; peaceful.

Clearly, word **stillness** best expresses the given word 'contest'. So, option 2 i.e. **stillness** is the correct answer.

---

11. Answer: b

Explanation:

Correct option - 2

The meaning of above mentioned idiom/phrase is t o determine, guess, or infer something from the available evidence, especially something that is very obvious or easy to guess. Thus, option 2 is the correct answer.

For example
- I think he put two and two together and realized that John had been stealing from him this whole time.

---

12. Answer: b

Explanation:

Correct option - 2

The meaning of above mentioned idiom/phrase is a serious conversation between two people, usually close friends, in which they talk honestly about their feelings.

The meaning of given options is as follows :-

Heartbeat - A pulsation of the heart.

Candidly - Frankly; outspoken; open and sincere; honest.

Secretly - Something done or made without knowledge of others.

Occasionally - Something that happens from time to time; now and then.

Clearly, option 2 i.e. **candidly** is the correct answer.

For example - We had a hear to heart talk over a bottle of wine.

13. Answer: a

Explanation:

Correct option - 1

First of all, there is no word like **admitte** . Hence, option 2 is eliminated. Now, **admit** & **admits** are verbs. But, here no subject or object is mentioned in the sentence. Thus, options 3 & 4 are eliminated. Hence, **admitting** as gerund verb should be used here. Gerund is a verb+ing form of infinite verb that is not adjusted according to the subject. Thus, option 1 i.e. **admitting** is the correct answer.

Correct sentence - Admitting to the errors of judgment so far is essential for a genuine course correction.

14. Answer: b

Explanation:

Correct option - 2

Here, concept of past tense is brought under consideration. Since, **former** means in earlier times; past; long past; having once. Thus, options 1 is clearly eliminated. Now, **advantages** is a plural noun, hence according to subject-verb agreement, verb is used according to noun. So, clearly, plural verb should be used. Hence, option 4 is eliminated. Now, if we use **had** , so it needs an object to give a meaningful sense. Hence, it should be replaced with **had been.** Thus, option 3 is eliminated. So, option 2 i.e. **were** is the correct answer.

Correct sentence - But whatever advantages may have accrued to this former president were lost.

15. Answer: c

Explanation:

Correct option - 3

Firstly, there are no words like dishonorer and interferer. Hence, options 1 & 2 are clearly eliminated.

Now, let's find out the meaning of other given options :-

Usurer - A person who gives money to others for a fixed period of time and charges interest at very high rates especially moneylenders.

Discoverer - A person who discovers or find something that already exist.

Clearly, option 3 i.e. **usurer** is the correct answer.

---

16. **Answer: d**

Explanation:

Correct option - 4

Let's find out the meaning of given options :-

Socialist - A person who supports socialism that is a set of political principles whose general aim is to create a system in which everyone has an equal opportunity to benefit from a country's wealth.

Capitalist - A person who supports capitalism that is a economic and political system in which property, business and industry are owned by private individuals and not by state.

Feminist - A person, group, etc., who supports social, political, legal, and economic rights for women equal to those of men.

Altruist - A person unselfishly concerned for or devoted to the welfare of others.

Clearly, option 4 i.e. **altruist** is the correct answer.

---

17. **Answer: a**

Explanation:

Correct option - 1

The correct spelling is **elementary.** It means dealing with elements, basics or simple things.

For example - Literacy now includes elementary computer skills.

---

18. **Answer: b**

Explanation:

Correct option - 2

The correct spelling is **illiterate.** It means a person who is not able to read or write.

For example - A large percentage of population is illiterate.

19. Answer: b

Explanation:

Correct option - 2

Here, the starter ends with an adverb **also,** so it should be followed by a verb. Thus, option 1 is clearly eliminated. Since, **the danger** is a noun. Now, Q serves as a verb but it is to + infinitive form of verb. Hence, options 3 & 4 are eliminated. Hence, option 2 i.e. **RQP** is the correct answer.

Correct sentence - Birds also give alarm calls to warn about the danger.

20. Answer: a

Explanation:

Correct option - 1

The starter of the passage has a noun and a conjunction. Since, conjunction is used to connect two similar parts of speech that are noun-noun, pronoun-pronoun, etc. Hence, conjunction **and** should be directly followed by another noun i.e. **bottles.** Hence, clearly, option 1 i.e. **PRQ** is the correct answer.

Correct sentence - Glass jars and bottles are dried well in the sun before filing them with pickles.

21. Answer: a

Explanation:

Correct option - 1

On looking at the passage, we observe that it is based on female education and its benefit in nation building. So, most appropriate word here will be **future.** Whereas, **ancient** means in long time past. Thus, options 2, 3 & 4 are eliminated. So, option 1 is the correct answer. That is, the female education in India is highly necessary for the future of the country.

22. Answer: a

Explanation:

Correct option - 1

Since, the context of the sentence has a negative meaning that is it will be ignorance for the brighter future. Hence, the only negative word which relates with the context is **ignored.** So, option 1 is the correct answer. That is, If education of the women is getting ignored, it would be the ignorance of bright future of the nation.

---

23. Answer: b

Explanation:

Correct option - 2

With reference to the context of the sentence, it has a negative sense that an uneducated woman cannot properly handle her family, her kids. And, it will weaken the future generation that are these kids. Hence, the word which best fits the blank is **weakening.** So, option 2 is the correct answer. That is, an uneducated women cannot actively participate in handling the family, proper care of the children and thus weakening future generation.

---

24. Answer: c

Explanation:

Correct option - 3

With reference to the context, an educated woman can handle her family very well and this will be beneficial for the family members especially her kids. Hence, the word which gives a positive meaning to the sentence is **responsible.** Hence, option 3 is the correct answer. That is, an educated women may easily handle her family, make each family member responsible, infuse good qualities in children.

---

25. Answer: d

Explanation:

Correct option - 4

With reference to the context of the sentence, an educated woman will also take part in social works and this all would take her towards the socially and a healthy nation. Hence, option 4 i.e. **towards** is the

correct answer. That is, she will participate in the social works and all would lead her towards the socially and economically healthy nation.

26. Answer: c

Explanation:

The pattern followed here is,

Lower right box = (upper right box + upper left box + lower left box) × 2

20 = (5 + 3 + 2) × 2 = 20

18 = (3 + 2 + 4) × 2 = 18

? = (5 + 4 + 6) × 2 = 30

Hence, the correct answer is 30.

27. Answer: b

Explanation:

The total number of triangles in the given figure is 4.

28. Answer: a

Explanation:

1) 69, 12, 11, 23, 86 → S, N, A, K, E = SNAKE

2) 43, 95, 40, 45, 23 → C, U, A, K, K = CUAKK

3) 69, 12, 88, 12, 41 → S, N, A, N, E = SNANE

4) 32, 89, 55, 67, 34 → W, N, F, J, R = WNFJR

Hence the correct answer is 69, 12, 11, 23, 86.

29. Answer: c

Explanation:

On close observation, we find that the problem figure is embedded in figure (3) as shown below,

Hence, figure 3 is the correct answer.

30. Answer: a

Explanation:

The final pattern will be as shown below,

Hence, the image 1 will complete the given pattern.

31. Answer: c

Explanation:

If a mirror is placed along AB line, we will get the following mirror image
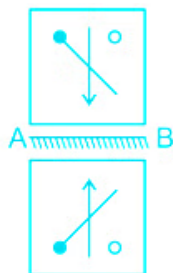
Hence, answer is figure (3).

32. **Answer: a**

Explanation:

By close observation the figure that will derive is (1).

---

33. **Answer: b**

Explanation:

Changing characters as per the question and using BODMAS we get,

1) 8 B 8 A 8 C 8 = –54 → 8 – 8 + 8 × 8 = 64 + 8 – 8 = 72 – 8 = 64 (False)

2) 19 B 2 A 6 C 54 D 9 → 53 = 19 – 2 + 6 × 54 ÷ 9 = 19 – 2 + 6 × 6 = 36 + 19 – 2 = 53 (True)

3) 12 A 4 C 6 D 3 = 22 → 12 + 4 × 6 ÷ 3 = 12 + 4 × 2 = 20 (False)

4) 4 A 36 B 12 D 6 = 34 → 4 + 36 – 12 ÷ 6 = 4 + 36 – 2 = 38 (False)

Hence the correct answer is option (2).

---

34. **Answer: c**

Explanation:

The pattern followed here is,

Answer = (first number)^2 × (second number)^2 × (third number)^2

$36 = (3)^2 × (2)^2 × (1)^2$

$= 9 × 4 × 1 = 36$

$900 = (5)^2 × (2)^2 × (3)^2$

$= 25 × 4 × 9$

$= 900$

Similarly,

? = (4) ^{2}× (2) ^{2}× (2) ^{2}

= 16 × 4 × 4

= 256

Hence the correct answer is option (3).

---

35. **Answer: a**

Explanation:

As per the dictionary order,

1) Hand

2) Hang

5) Hilly

3) Hinge

4) Hinted

Hence, 12534 is the correct answer.

---

36. **Answer: b**

Explanation:

The given sequence follows the pattern as shown below,

4 + 3 = 7;

7 + (3 × 2) = 13;

13 + (3 × 3) = 22;

22 + (3 × 4) = 34;

34 + (3 × 5) = 49

Hence, 34 is the correct answer.

37. **Answer: c**

   Explanation:

   The pattern followed here is,

   L + 1 = M; M + 1 = N; N + 1 = O;

   A + 2 = C; C + 2 = E; E + 2 = G

   Hence, the correct answer is 'og'.

38. **Answer: a**

   Explanation:

   Wood, Coal, Rubber are found in solid states whereas Liquid is a state itself.

   Hence, 'liquid' is the correct answer.

39. **Answer: c**

   Explanation:

   256, 576, 676 are perfect square of 16, 24, 26 respectively,

   Whereas,

   626 is not a perfect square,

   Hence 626 is the odd number among the four given numbers.

40. **Answer: d**

   Explanation:

   The pattern followed here is,

   1) I JK

   2) A BC

3) P **QR**

4) M **N O** P

It is clearly visible in first three options there is gap of only one alphabet and in the fourth option, there is a gap is of two alphabets.

Hence, 'mp' is odd one out.

---

41. Answer: d

Explanation:

As all fathers are males and some males can be a writer.
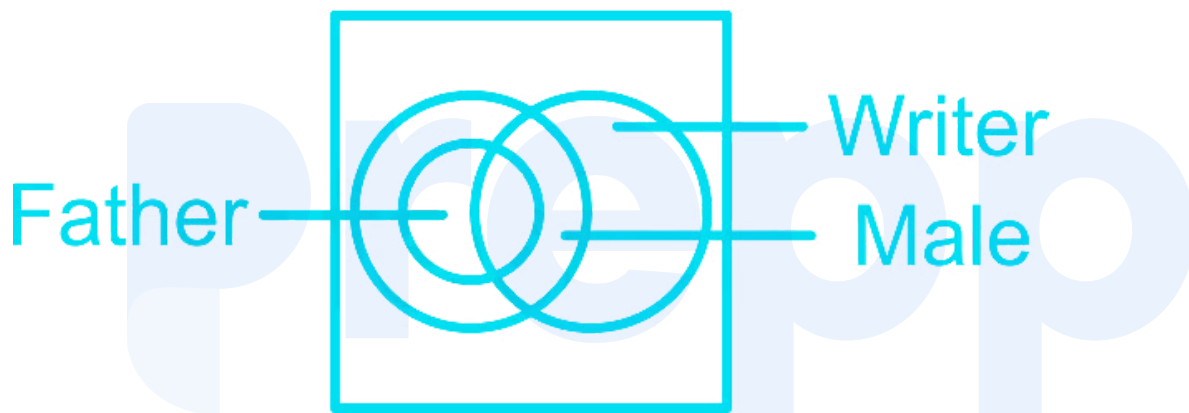
Hence, figure 2 is the correct answer.

---

42. Answer: b

Explanation:

S.I. Unit of Pressure is Pascal,

Similarly,

S.I. Unit of Time is Second.

Hence, option 2 is the correct answer.

---

43. Answer: b

Explanation:

The pattern followed here is,

Second number = reverse digit number of first number

814 : 418

Similarly,

927 : 729

Hence, the correct answer is option (2).

---

44. Answer: c

Explanation:

The pattern followed here is,

Man : M + 1 = N; A + 2 = C; N + 3 = Q

Similarly,

Tap : T + 1 = U; A + 2 = C; P + 3 = S

Hence the correct answer is 'ucs'.

---

45. Answer: c

Explanation:

1) DEAD = H **ERAL DED** (It can be formed using the letters of word HERALDED).

2) HEAR = **HERA** LDED (It can be formed using the letters of word HERALDED).

3) DRIED = (It cannot be formed using the letters of word HERALDED as there is no 'I' in this word).

4) HEARD = HERALDED (It can be formed using the letters of word HERALDED).

Hence, DRIED cannot be formed from the given word.

---

46. Answer: d

Explanation:

Here it is clearly given that examination is after 11 th September and before 14th September, now only 2 dates are remaining between them.

so the exam may be on 12 or 13 September,

Hence option (4) is the correct answer.

---

47. Answer: a

Explanation:

As the Apple tree is 16th from either end in a row of trees,

there are 15 tree toward its right and 15 toward its left,

hence the total number of trees = 15 + 15 + 1 = 31.

Hence, 31 is the correct answer.

---

48. Answer: b

Explanation:

The least possible diagram of this question is as follow
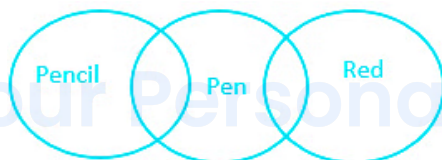
Conclusion:

1) Some pencils are red → False (It is possible but not definite).

2) Some red are pen → True

Hence, only conclusion (II) follows.

---

49. Answer: d

Explanation:

Here the pattern followed is,

H + 3 = K

I + 3 = L

D + 3 = G

E + 3 = H

Similarly,

K + 3 = N

N + 3 = Q

O + 3 = R

T + 3 = W

Hence, the correct answer is NQRW.

---

50. **Answer: c**

Explanation:

As per the alphabetical positions of the letters,

JET = 10 + 5 + 20

= 35 − 2

= 33

MET = 13 + 5 + 20

= 38 − 2

= 36

Similarly,

SIX = 19 + 9 + 24

= 52 − 2 = 50

Hence, the correct answer is 50.

---

51. **Answer: b**

Explanation:

N = √7 – √3

⇒ (1 / N) = 1 / (√7 – √3)

⇒ multiplying by (√7 + √3)

⇒ (1 / N) = (√7 + √3) / (√7) ^{2} – (√3) ^{2}

⇒ (1 / N) = (√7 + √3) / (7 – 3)

∴ (1 / N) = (√7 + √3) / 4

---

52. **Answer: b**

Explanation:

If N is a number and,

$N = p_1{}^{r_1} p_2{}^{r_2} p_3{}^{r_3} \ldots\ldots p_n{}^{r_n}$

Where, $p_1, p_2, p_3 \ldots p_n$ are prime numbers and $r_1, r_2 \ldots r_n$ are positive integers

Then,

Number of positive factors = $(r_1 + 1)(r_2 + 1)(r_3 + 1)\ldots(r_n + 1)$

Now,

⇒ 64 = 2 × 2 × 2 × 2 × 2 × 2 = 2 ^{6}

∴ Number of positive factors = (6 + 1) = 7

---

53. **Answer: a**

Explanation:

A number will be divisible by both 9 and 4 if the number is divisible by LCM of 9 and 4

Finding the LCM of 9 and 4

9 = 3 × 3

4 = 2 × 2

LCM = 3 × 3 × 2 × 2 = 36

36 × 5 = 180, which is less than 209

36 × 6 = 216

36 × 7 = 252

36 × 8 = 288, which is greater than 285

∴ From Above it is clear that 2 number is greater is divisible by 9 and 4

---

54. Answer: a

Explanation:

$$\frac{(6.3)^3 + (1.1)^3}{(6.3)^2 - 6.3 \times 1.1 + (1.1)^2}$$

Using, $a^3 + b^3 = (a + b)(a^2 - ab + b^2)$

$$= \frac{(6.3 + 1.1)\left((6.3)^3 - 6.3 \times 1.1 + (1.1)^2\right)}{(6.3)^2 - 6.3 \times 1.1 + (1.1)^2}$$

= 6.3 + 1.1

= 7.4

---

55. Answer: d

Explanation:

For statement I

Comparing 3/7 and 4/5 and making the denominator same we get

⇒ 3 / 7 = (3 × 5) / (7 × 5) = 15 / 35

⇒ 4 / 5 = (4 × 7 / (5 × 7) = 28 / 35

⇒ 28 / 35 > 15 / 35

⇒ 4 / 5 > 3 / 7

So Statement I is false

For statement II

Comparing 4/7 and 3/2 and making the denominator same we get

⇒ 4 / 7 = (4 × 2) / (7 × 2) = 8 / 14

⇒ 3 / 2 = (3 × 7 / (2 × 7) = 21 / 35

⇒ 21 / 35 > 8 / 14

⇒ 3 / 2 > 4 / 7

∴ Statement II is false

---

56. **Answer: d**

Explanation:

Unit digit of 2^1 = 2

Unit digit of 2^2 = 4

Unit digit of 2^3 = 8

Unit digit of 2^4 = 6

Unit digit of 2^5 = 2

Unit digit of 2^6 = 4

After every fourth multiplication of 2 the same unit digit is repeated.

Dividing 47 by 4 we get remainder 3

So Unit digit of 2^{47} will be equal to unit digit of 2^3

Unit digit of 2^{47} = 8

Unit digit of 3^1 = 3

Unit digit of 3^2 = 9

Unit digit of 3^3 = 7

Unit digit of 3^4 = 1

Unit digit of 3^5 = 3

Unit digit of 3^6 = 9

As after every fourth multiplication of 3 the same unit digit is repeated.

Dividing 23 by 4 we get remainder 3

Unit digit of 3^{23} will be equal to unit digit of 3^3

Unit digit of 3^{23} = 7

$\therefore$ Unit digit of $2^{47} \times 3^{23}$ = Unit digit of (8×7) = 6

---

57. **Answer: c**

Explanation:

Given:

Time to complete the work by Aman and Raman together = 12 days

Time to complete the work by Aman alone = 15 days

Formula used:

Efficiency = (Work done)/Time

Calculations:

Aman and Raman together can do a work in 10 days.

So, Part of work Aman and Raman can do in 1 day = 1/10

Aman alone can do the work in 12 days

So Part of work Aman can do in 1 day = 1/12

Part of work Raman can do in 1 day = (1/10) – (1/12)

Part of work Raman can do in 1 day = (6 – 5) / 60 = 1/60

$\therefore$ **Raman alone can do the work in 60 days.**

⭐ **Alternate Method**

Let the efficiency of Aman and Raman be a and b respectively.

Let the total work be LCM of 12 and 15 i.e. 60 units.

Efficiency of Aman and Raman together = a + b = 60/12

$\Rightarrow$ a + b = 5 units/day ----(i)

Efficiency of Aman alone = b = 60/15

$\Rightarrow$ a = 4 units/day   ----(ii)

Putting the value of b in eq. (i),

a + b = 5

$\Rightarrow$ 4 + b = 5

$\Rightarrow$ b = 1 unit/day

Time to complete the work by Raman alone = (60 units)/(1 unit/day)

$\Rightarrow$ 60 days

$\therefore$ Raman alone can do the work in 60 days.

---

58. **Answer: b**

Explanation:

GIVEN:

A, B and C can fill a tank in 120, 80 and 96 minutes.

All the taps are opened together

CALCULATION:

Tap A can fill the tank in 120 minutes

Part of tank tap A can fill in 1 minute = 1 / 120

Tap B can fill the tank in 80 minutes

Part of tank tap B can fill in 1 minute = 1 / 80

Tap C can fill the tank in 96 minutes

Part of tank tap C can fill in 1 minute = 1 / 96

Part of tank A, B and C together can fill in 1 minute = (1 / 120) + (1 / 80) + (1 / 96)

Part of tank A, B and C together can fill in 1 minute = (1 / 8) (1 / 15) + (1 / 10) + (1 / 12)

Part of tank A, B and C together can fill in 1 minute = (1 / 8) (8 + 12 + 10) / 120 = 30 / 960

Part of tank A, B and C together can fill in 1 minute = 1 / 32

∴ Pipe A, B and C together can fill the tank in 32 minutes.

---

59. **Answer: a**

Explanation:

Area of equilateral traingle = $\frac{(side)^2 \sqrt{3}}{4}$

Given,

Side = 8 cm

Area of the triangle = $(8^2 \sqrt{3}) / 4$

∴ Area of the triangle = $16\sqrt{3}$ cm^2

---

60. **Answer: d**

Explanation:

Formula used:

Succesive discount = x + y − (xy/100)

Calculation:

Let,

The price is = Rs. x

Percent of discount = 40%

Amount of discount = 0.40x

Percentage of two successive discount = 20%

Amount of two successive discount = 0.20x + (x − 0.20x) (0.20)

= 0.20x + (0.80x) (0.20)

= 0.20x + 0.16x

= 0.36x

Given,

Difference between these two discount is = Rs. 64

⇒ 0.40x – 0.36x = 64

⇒ 0.04x = 64

∴ x = 1600

⚡ Shortcut Trick

Effective discount for 2 successive discount of 20% each = 20 + 20 – 400/100 = 36%

Single discount = 40%

ATQ,

(40 – 36)% → Rs. 64

∴ 100% → 64 × 100/4 = Rs. 1600

---

61. **Answer: b**

Explanation:

Let the cost price = Rs. x

Marked price is 20% more than cost price

Marked price = 1.20x

Discount percentage = 30%

Selling price = (1 – 0.30) (1.20x)

Selling price = (0.70) (1.20x)

Selling price = 0.84x

Loss percentage

$$= \frac{Cost\ price - selling\ price}{Cost\ price} \times 100\%$$

Loss percentage = (x – 0.84x) × 100 / x

Loss percentage = 0.16 × 100%

∴ Loss percentage = 16%

Smart Method

Such type of questions can easily be solved by taking CP = 100.

Let CP be 100

Hence, MP = 120% of 100 = 120

Now, discount = 30% of 120 = 36

Hence, SP = 120 - 36 = 84

Now, loss = 100 - 84 = 16

∴ Loss % = (16/100) × 100 = 16%

---

62. **Answer: d**

Explanation:

Let two numbers be x and 3x

Given,

Their difference = 144

⇒ 3x - x = 144

⇒ 2x = 144

⇒ x = 72

∴ The smallest one = x = 72

---

63. **Answer: b**

Explanation:

Let,

Three numbers be A, B and C

Ratio of first and second is 3 : 4

⇒ (A / B) = (3 / 4) = (3 × 5)/ (4 × 5) = (15 / 20)   ----1

Ratio of second and third is 5 : 6

$\Rightarrow (A / B) = (5 / 6) = (4 \times 5) / (4 \times 6) = (20 / 24)$ ----2

From (1) and (2)

A : B : C = 15 : 20 : 24

Let A = 15x, B = 20x and C = 24x

Given, product of second and third is = 4320

$\Rightarrow (20x) (24x) = 4320$

$\Rightarrow 480 x^2 = 4320$

$\Rightarrow x^2 = 9$

$\Rightarrow x = 3$ [$\because x \neq -3$ as numbers are positive]

Sum of these numbers = 15x + 20x + 24x = 59x

Putting value of x we get

Sum of these numbers = 59 × 3

$\therefore$ Sum of these numbers = 177

---

64. Answer: b

Explanation:

Let the Five consecutive numbers be

x, x + 1, x + 2, x + 3 and x + 4

Average of these 5 consecutive numbers = 8

Sum of these 5 numbers = 5 × 8 = 40

$\Rightarrow x + x + 1 + x + 2 + x + 3 + x + 4 = 40$

$\Rightarrow 5x + 10 = 40$

$\Rightarrow 5x = 30$

$\Rightarrow x = 6$

Previous 5 numbers are

x – 1, x – 2, x – 3, x – 4 and x – 5

Sum of these previous 5 numbers = x – 1 + x – 2 + x – 3 + x – 4 + x – 5

Sum of these previous 5 numbers = 5x – 15

Putting value of x we get

Sum of these previous 5 numbers = 5 × 6 – 15 = 15

Sum of all 10 numbers = 40 + 15 = 55

Average of these 10 numbers = 55 / 10

∴ Average of these 10 numbers = 5.5

---

65. **Answer: b**

Explanation:

Given:

Selling price of 4 article in Rs. = 1

Selling price of 1 article in Rs. = 1 / 4 = 0.25

Let,

The cost price of 1 article in Rs. = x

Profit percentage $= \frac{Selling\ Price - Cost\ Price}{Cost\ price} \times 100\%$

⇒ 25 = [(0.25 – x) / x] × 100

⇒ 0.25x = 0.25 – x

⇒ 1.25x = 0.25

⇒ x = 0.20

Cost price of 1 article in Rs. = 0.20

Now,

Selling price of 6 article in Rs. = 1

Selling price of 1 article in Rs. = 1 / 6

Loss percentage $= \frac{Cost\ Price - Selling\ Price}{Cost\ price} \times 100\%$

Loss percentage = [(0.20 – (1 / 6)) / 0.20] × 100

Loss percentage = (0.20 / 1.20) × 100

∴ Loss percentage = 16.67%

---

66. **Answer: a**

Explanation:

Let,

The cost price in Rs. = x

With 35% gain

Selling price in Rs. = x + 35% of x = 1.35x

With 40% gain

Selling price in Rs. = x + 40% of x = 1.40x

According to the question

⇒ 1.35x + 600 = 1.40x

⇒ 0.05x = 600

⇒ x = 600 / 0.05 = 12000

∴ Cost price in Rs. = 12000

---

67. **Answer: b**

Explanation:

Let Income of the man in Rs. = x

Man spends 70%

Amount of Spending in Rs. = x − 70% of x = 0.70x

Amount of savings in Rs. = x − 0.70x = 0.30x

Income decreased by 30%

New income of the man in Rs. = 0.70x

Spending decreased by 20%

New amount of Spending in Rs. = (0.70x) × (0.80) = 0.56x

New amount of savings in Rs. = New income - New spending

New amount of savings = 0.70x - 0.56x

New amount of savings = 0.14x

Percentage decrease in savings $= \frac{Amount\ of\ saving - New\ amount\ of\ saving}{Amount\ of\ savings} \times 100\%$

Percentage decrease in savings = [(0.30x - 0.14x) / 0.30x] × 100%

Percentage decrease in savings = (0.16x / 0.30x) × 100%

∴ Percentage decrease in savings = 53.33%, decreased

---

68. **Answer: a**

Explanation:

The old price is = x

Price is increased by 16.66%

New price = x + 16.66% of x = 1.1666x

Required percentage $= \frac{New\ price - Old\ price}{New\ price} \times 100\%$

Required percentage = [(1.1666x - x) / 1.1666x] × 100%

Required percentage = (0.1666x / 1.1666x) × 100%

∴ Required percentage = 14.28%

Alternate method:

Let the original number be 100

according to question,

new number = 100 × 116% = 116

So, Required percent = [(new price - original price)/new price] × 100

⇒ Required percent = [(116 - 100)/116] × 100

∴ Required percent = 14.28%

69. Answer: b

Explanation:

Let

Speed of the boat in still water = x km/hr

Speed of stream = 9 km/hr

Speed of the boat in towards downstream = (x + 9) km/hr

Speed of the boat in towards upstream = (x – 9) km/hr

Given,

The distance of the place is = 21 km

Time taken to go to the place and come back = 8 hrs

$\Rightarrow \frac{21}{x+9} + \frac{21}{x-9} = 8$

$\Rightarrow \frac{21(x-9) + 21(x+9)}{(x+9)(x-9)} = 8$

$\Rightarrow \frac{21(x-9+x+9)}{x^2-9^2} = 8$

$\Rightarrow 42x = 8x^2 - 8 \times 81$

$\Rightarrow 4x^2 - 21x - 324 = 0$

$\Rightarrow 4x^2 - 48x + 27x - 324 = 0$

$\Rightarrow 4x(x-12) + 27(x-12) = 0$

$\Rightarrow (x-12)(4x+27) = 0$

$\Rightarrow x - 12 = 0$ or $4x + 27 = 0$

$\Rightarrow x = 12$ 0r x = –27/4

x can't be negative

$\Rightarrow$ x = 12 km/hr

∴ Speed of the boat in still water = 12 km/hr

70. **Answer: c**

   Explanation:

   Given:

   Length of train = 400m

   Length of platform = 200m

   Speed of train = 30 km/hr = 30 × (5/18)

   Speed of train = 25/3 m/sec

   Formula used:

   Speed = Distance/Time

   Calculation:

   Distance covered to cross the platform = length of train + Length of platform

   Distance covered to cross the platform = 400 m + 200 m

   Distance covered to cross the platform = 600 m

   Time required crossing the platform = Distance covered / Speed of the train

   Time required crossing the platform = 600 / (25 / 3)

   Time required crossing the platform = (24 × 3) s

   Time required crossing the platform = 72 s

   ∴ The correct answer is **72 s** .

71. **Answer: b**

   Explanation:

   Let,

   Population 3 years ago = x

   Increase in population per annum = 10%

   ⇒ Population after 3 year = (1.10) (1.10) (1.10) x = 1.331x

Population after 3 year = 266200

⇒ 1.331x = 266200

∴ x = 266200 /1.331 = 200000

---

72. Answer: c

Explanation:

Number of students admitted in section X in 2011 = 50

Number of students admitted in section X in 2013 = 72

Percentage change = [(72 - 50) / 50] × 100

Percentage change = (22 / 50) × 100

∴ Percentage change = 44%

---

73. Answer: d

Explanation:

Difference in number of students admitted in two sections in 2011 = 52 - 50

Difference in number of students admitted in two sections in 2011 = 2

Difference in number of students admitted in two sections in 2012 = 65 - 60

Difference in number of students admitted in two sections in 2012 = 5

Difference in number of students admitted in two sections in 2013 = 72 - 50

Difference in number of students admitted in two sections in 2013 = 22

Difference in number of students admitted in two sections in 2014 = 80 - 58

Difference in number of students admitted in two sections in 2014 = 22

Difference in number of students admitted in two sections in 2015 = 64 - 62

Difference in number of students admitted in two sections in 2015 = 2

∴ Difference is same in the years 2011 and 2015 also the difference is same in the years 2013 and 2014.

74. **Answer: a**

   Explanation:

   In year 2012,

   Number of students admitted in section Y = 65

   Number of students admitted in section X = 60

   Required percentage

   Required percentage = (65 / 60) × 100

   Required percentage = (13 / 12) × 100

   ∴ required percentage = 108.33%

75. **Answer: b**

   Explanation:

   Number of students admitted in section Y in 2011 = 52

   Number of students admitted in section Y in 2014 = 58

   Percentage change = [(58 – 52)/52] × 100

   Percentage change = (6/52) × 100

   ∴ Percentage change = 11.54%

76. **Answer: a**

   Explanation:

   - The<u>unorganised sector</u>is characterised by small and scattered units which are largely outside the control of the government.
   - The unorganised sector, in the Indian context, is one which consists of all the unincorporated private enterprises which are owned by households or individuals engaged in the production or sale of services and goods operated on a partnership or proprietary basis, with less than 10 total workers.

- The organised sector is one where the employment terms are regular and fixed and the employees have assured work.

---

77. Answer: b

Explanation:

- An asset that the borrower owns and uses this as a guarantee to the lender until the loan is repaid is called collateral.
- Credit in economics is a contractual agreement, in which a borrower agrees to repay the lender at a later date for some value received now, generally with some interest.
- A loan is anything such as goods, money, or property which are lent by an individual in exchange for future repayment.
- A bond, in simpler terms, is a debt security, from the bond issuer to the holders.

---

78. Answer: d

Explanation:

- The Constitution of India, under Article 21, recognises the right to water as being a part of Right to Life.
- Right to equality is provided in the Articles 14, 15, 16, 17, and 18 of the Indian Constitution.
- Right to Freedom is provided in the Articles 19, 29, 21A, and 22.
- Right to Freedom of Religion is provided in the Articles 25, 26, 27, and 28.

---

79. Answer: c

Explanation:

The correct answer is Option 3 i.e.<u>Prime minister</u>

- The Union executive consists of the President, the Vice-President, and the Council of Ministers with the <u>Prime Minister as the head</u> to aid and advise the President.
- The nominal head of the state - President
- Real executive head of the state - PrimeMinister .
- All real powers and executive decisions are made through him and he is also head of the council of ministers.

---

80. Answer: b

Explanation:

The correct answer is **Harishen**.

⭐ **Key Points**

- **Harishena** was the court poet of the Gupta Emperor, **Samudragupta** .
- **Allahabad Pillar inscription** is also known as **Prayag Prashasti** consists of 33 lines composed by Harishena.
- Prayag Prashasti is one of the important epigraphic sources to know about the political history of the **Gupta dynasty** .
- Samudragupta was a patron of many poets and scholars, one of whom was Harishena.
- Samudragupta was the son and successor of Chandragupta I and was the greatest ruler of the Gupta dynasty.
- He conquered the Kushans and other small kingdoms and greatly expanded the Gupta empire.
- He had been termed as the Nepolean of India by V. A. Smith.
- He annexed the territories after defeating the monarchs of North India but did not annex south India.
- His authority over Java, Sumatra, and Malaya Island prove that he maintained a strong navy .
- He is said to have composed numerous poems.
- Some of his coins present him playing Veena .
- He also performed Ashvamedha sacrifices.
- According to Chinese sources, Meghaverma , the ruler of Srilanka, sent a missionary to him for permission to build a Buddhist temple at Gaya.
- The Allahabad pillar inscription mentions the title Dharma Prachar Bandhu i.e. he was the upholder of Brahmanical religion .

⭐ **Additional Information**

- **Banabhatta** was the court poet of King **Harsha Vardhana** .
- **Chand Bardai** was the court poet of **Prithviraj Chauhan** .
- **Bhavabhuti** was the court poet of the King of Kannauj, **Yashovarman** .

---

81. Answer: c

Explanation:

The All India Muslim League was formed on 30 December 1906 in Dhaka Bangladesh. It was a political party which was established during the British rule in order to establish Pakistan as a separate Muslim-majority nation. Muhammad Ali Jinnah was the leader of the party.

82. **Answer: c**

    Explanation:

    - The approximate duration of the moon's rotation around the Earth is around 27.32 days. It is known as the sidereal month.
    - The time that the moon takes to reach the same visual phase is 29.53 days. This is known as the synodic month.

83. **Answer: b**

    Explanation:

    The duration of the season of retreating monsoon (Autumn) in India is 2-month long, that is from around October and November. It begins with the withdrawal of the southwest monsoon.

84. **Answer: c**

    Explanation:

    - Night blindness is a type of vision impairment which happens because of the deficiency of<u>Vitamin A</u>.
    - People with night blindness experience poor vision at night or in dimly lit environments.
    - Less drinking of water causes dehydration.

85. **Answer: d**

    Explanation:

    - The frog respires during hibernation in the winters with its moist skin only. This is known as cutaneous respiration.
    - When they are not hibernating, they take in the oxygen through their lungs.
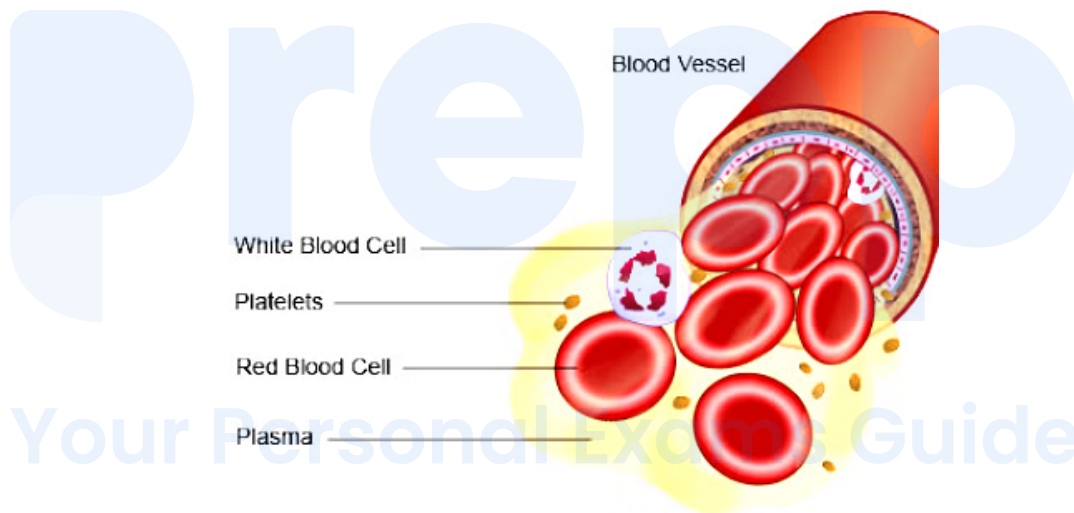
86. **Answer: c**

Explanation:

The correct answer is **5 liters.**

⭐ **Key Points**

- An **average person have** around **4.5 to 5.7 liters** of **blood** in the **circulatory system.**
- The **amount of blood** in the **human body** is generally **equivalent to 7 percent of body weight.**

⭐ **Additional Information**

- **Babies** : Babies born full-term **have about 75 milliliters** (mL) of blood **per kilogram of their body weight.**
- **Children** : The **average 80-pound child** will have **about 2,650 mL** of blood in their body, or **0.7 gallons.**
- **Adults** : The **average adult weighing 150 to 180 pounds** should have about **1.2 to 1.5 gallons of blood** in their body, which is **about 4,500 to 5,700 mL.**

---

87. **Answer: c**

Explanation:

The correct answer is **Newton's second law of motion.**

Concept:

Newton's First law :

- A body continues to be in its state of rest or of uniform motion along a straight line unless it is acted upon by some external force to change the state.

- If no net force acts on a body, then the velocity of the body cannot change i.e. the body cannot accelerate.
- Newton's first law defines inertia and is rightly called the law of inertia.

Newton's Second Law:

- The rate of change of linear momentum of a body is directly proportional to the external force applied on the body and this change takes place always in the direction of the applied force.
- If a body of mass m moves with velocity $\vec{v}$ then its linear momentum can be given by $\vec{p} = m\vec{v}$ and if force is applied on a body, then

$$\therefore \vec{F} = m\vec{a}$$

Where F = Force, m = mass and a = acceleration

Newton's Third Law:

- To every action, there is always an equal (in magnitude) and opposite (in direction) reaction.
- When a body exerts a force on any other body, the second body also exerts an equal and opposite force on the first.
- Forces in nature always occur in pairs. A single isolated force is not possible.

Explanation:

- Newton's second law of motion states that **the force is equal to the change in momentum per change in time.** It also equals mass times acceleration.

Hence the correct option is Newton's Second Law.

---

88. **Answer: b**

Explanation:

CONCEPT:

- Plane mirror : This mirror is straight without any inward or outward curve.
  - It forms a virtual image and upright image which is of size as same as the object.
  - The bathroom mirrors are an example.
- Concave mirror : The mirrors curved inside on the reflecting side are called concave mirrors.
  - These mirrors produce a real, inverted, and magnified image of the object.
  - These are used in reflecting telescopes, shaving mirrors, and ophthalmoscope.
- Convex mirror : It is an outward curved mirror that produces a diminished image.
  - Convex mirrors either diverge a parallel beam of light into all directions or gather light from all directions and produce a parallel beam out of it.

<u>EXPLANATION</u>:

- Following are the reasons as to why a convex mirror is used as a rearview mirror in the vehicle
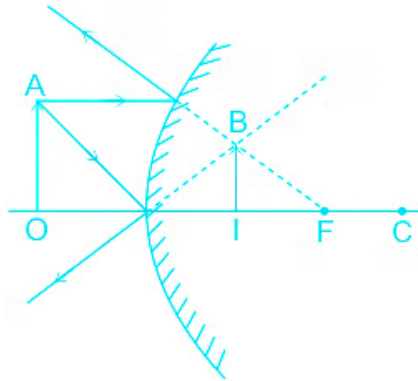
- The image formed by the convex mirror is virtual and erect in contrast to that of the real but inverted image of the concave mirror.
- It gathers light from all directions and aligns it as a parallel beam so that it provides a wider view to the viewer. That's why the convex mirror is used as a rear-view mirror in vehicles. So option 2 is correct.

---

89. **Answer: a**

Explanation:

- The smallest unit of a digital image is a Pixel.
- A palette is a set of available colors in computer graphics.
- An array is a container object that holds a certain number of values of a single type.
- Loop is a sequence of instruction in computer programming that repeats continuously until a certain condition is reached.

---

90. **Answer: b**

Explanation:

- Acids are mostly stored in containers made of glass. Glass bottles are ideal for storing most of the acids and bases because of their chemical inertness.
- They cannot be stored in metal containers since they will react with the metal and form metal salt and liberate hydrogen gas.

---

91. Answer: d

Explanation:

The molecular formula of common salt is NaCl (sodium chloride).

Na_2SO_4	sodium sulphate
$CaCl_2$	calcium chloride
$MgCl_2$	magnesium chloride
NaCl	Sodium chloride- common salt

92. Answer: a

Explanation:

Symbiotic interaction is necessary for the survival of both the partners in association. Symbiosis (also called Mutualism) is a mutual, beneficial, internal partnership between two beings. A good example of symbiosis is **lichen**, in which there is mutual well-being symbiosis between **algae and fungus** .

- **Amensalism** - It is a relationship between two different species of organisms, one of which is interrupted or destroyed and the other remains unaffected.
- **Parasitism** - It is a relationship between two species of plants or animals that benefit at the cost of each other, sometimes without killing the host organism.

93. Answer: c

Explanation:

- The Atal Pension Scheme is a pension scheme which was introduced in June 2015 by the government to focus on the workers of the unorganized sector for citizens of India.
- Under this scheme, a fixed monthly pension of Rs. 1000, 2000, 3000, 4000, or 5000 will be given every month to the subscribers after their retirement after 60 years of age.

- Any citizen of India who is between the ages of 18 and 40 years can take advantage of this scheme.

---

94. Answer: a

Explanation:

The correct answer is option1, i.e. Ernest Rutherford.

Ernest Rutherford and Niels Bohr discovered the structure of an atom.

Scientists	Discovery	Nationality
Ernest Rutherford and Niels Bohr	Structure of an atom	New Zealand and Denmark
John Dalton	Atomic theory	England
A. Lavoisier	Combustion and Identified oxygen	France
Dimitri Mendeleev	Periodic table of chemical elements	Russia

---

95. Answer: b

Explanation:

The correct answer is Karnam Malleswari.

⭐ Key Points

- Karnam Malleshwari is the first Indian woman who won a bronze medal in the Olympic Games.
- She is an Indian weightlifter and is now retired.
- She won silver in World Championship, Istanbul in 1994, and Asian Weightlifting Championship, Korea in 1995.
- She was the two-time weightlifting champion with 11 Gold medals out of 29 international medals before the Olympics.

- In **2000, Sydney Olympics she won a Bronze medal and become the first and only Indian women weightlifter to win Olympics**.
- She was also awarded **Rajiv Gandhi Khel Ratna Award in 1995, Arjuna Award in 1994, and Padma Shri in 1999**.

⭐ **Additional Information**

- **P.T Usha** is the recipient of the **Padma Shri and Arjuna Award in 1985**.
- **P.V Sindhu** is the **first Indian woman to win a silver medal at the Olympics**.
- **Soma Biswas** won a **silver medal at the 2002 Asian Games**.

---

96. Answer: d

Explanation:

- Nagara-style or Northern style temples consist of **Shikharas, Garbhagriha, Kalasha, Amalaka, Antarala, Vahana, Jagati, and Mandapa.**
- The Garbhagriha houses the main icon, Shikaras are mountain like spire, and Mandapa is the entrance of the temple.

---

97. Answer: b

Explanation:

- Punjabi play Swarajbir won the Sahitya Akademi Award 2016.
- The Sahitya Akademi Award is conferred annually to writers of the most outstanding books in any of the 24 major Indian languages. It comprises a cash prize of Rs. 100000 and a plaque.

---

98. Answer: c

Explanation:

Swami Dayanand is the author of the book named "Satyartha Prakash".

Sarojini Naidu	The Bird of Time
Amrita Pritam	Raseedi Ticket
Swami Dayanand	Satyarth Prakash
Sameer Kochhar	Modinomics

99. Answer: b

Explanation:

- Korea Plus is the name of the initiative unveiled by India and South Korea to promote and facilitate Korean investments in India.
- It was launched by the Commerce and Industry Minister Nirmala Sitharaman and his South Korean counterpart Joo Hyung Hwan on 17 June 2016.

100. Answer: a

Explanation:

- 'Cold Start' is is the name of military doctrine developed by the Indian Armed Forces to put to use in case of war with Pakistan, which can be invaded within 48 hours after receiving the order.
- Operation Meghdoot - to capture Siachen glacier in the Kashmir region.
- Shaurya is an Indian film inspired the play Court Martial.