



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



UP TET



IBPS RRB



IBPS CLERK



IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC CGL 2018 (Tier-I) Previous Year Paper (11-Jun-2019) (Shift 3)

Total Time: 1 Hour

Total Marks: 200

Instructions

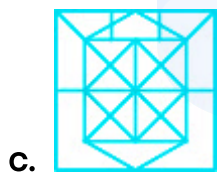
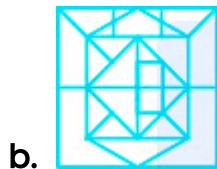
Sl No.	Section Name	No. of Question	Maximum Marks	Negative Marks	Positive Marks
1	General Intelligence and Reasoning	25	50	0.5	2
2	General Awareness	25	50	0.5	2
3	Quantitative Aptitude	25	50	0.5	2
4	English Comprehension	25	50	0.5	2

- 1.) A total of 60 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 and Reasoning

1. Select the figure in which the given figure is embedded. (Rotation is not allowed)

(+2, -0.5)



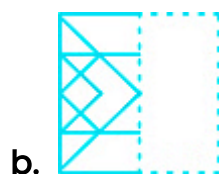
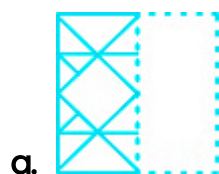
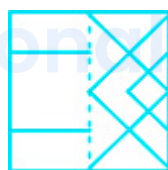
2. Find the missing number from the below options.

(+2, -0.5)

4	6	7
5	3	?
41	45	58

- a. 12
- b. 9
- c. 51
- d. 3

3. Given below is a transparent sheet of paper with a pattern on the left and right side. How will the pattern appear when the transparent sheet is folded on the dotted line? (+2, -0.5)





4. Arrange the following words in a logical and meaningful order.

(+2, -0.5)

1. Kidney
2. Heart
3. Brain
4. Thyroid gland
5. Liver

- a. 3, 4, 2, 5, 1
- b. 3, 4, 2, 1, 5
- c. 3, 2, 4, 5, 1
- d. 3, 2, 4, 1, 5

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

(+2, -0.5)

Statements:

All squirrels are lizards.

All lizards are goose.

Conclusions:

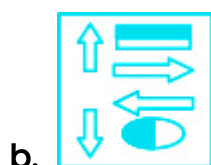
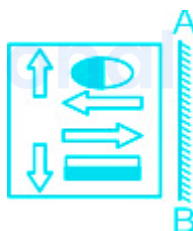
I. Some squirrels are not goose.

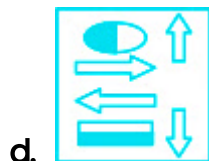
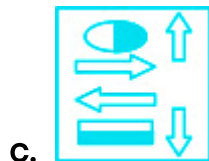
II. Some lizards are squirrels.

III. Some goose are squirrels.

- a. Conclusions II and III follow
- b. Conclusions I, II and III follow
- c. Conclusions I and III follow
- d. Conclusions I and II follow

6. Select the correct mirror image of the given figure when a vertical mirror is placed on the right on the figure. (+2, -0.5)





7. Select the number that will replace “?” in the following series.

(+2, -0.5)

120, 128, 144, 168, ?, 240

- a. 200
- b. 216
- c. 208
- d. 202

8. Select the option that is related to the third number in the same way as the second number is related to the first number.

(+2, -0.5)

16 : 240 :: 6 : ?

- a. 25
- b. 40
- c. 35
- d. 30

9. Find the missing number from the below options.

(+2, -0.5)

9	25	49
6	11	13
9	16	?

a. 20

b. 21

c. 19

d. 18

10. Select the letter cluster that will come next in the following series.

(+2, -0.5)

ADH, XAE, UXB, RUY, ?

a. PRV

b. ORV

c. OSV

d. ORU

11. Which two signs should be interchanged to make the given equation correct?

(+2, -0.5)

$$27 \div 3 - 18 + 3 \times 2 = 18$$

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

12. Three different positions of the same dice are shown below. Which symbol is on the face opposite the face showing '*'? (+2, -0.5)



- a. &
- b. #
- c. %
- d. +

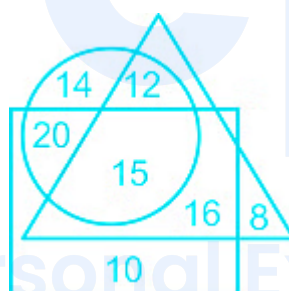
13. In a code language, SELECTION is written as ESELDITNO. How will NOSTALGIA be written in the same language? (+2, -0.5)

- a. ONTSBGLAI
- b. ONSTBGLAI
- c. ONTSZGLAI
- d. NOTSBLGAI

14. In a code language, if PICTURE is coded as 16932021185 then how will FUNCTION be coded in the same language? (+2, -0.5)

- a. 6211432081514
- b. 6211332091513
- c. 6211432091413
- d. 6211432091514

15. In the Venn diagram given below, the circle represents 'Ladies', the triangle represents 'Constables' and the square represents 'Married persons'. The numbers given in the diagram represents number of persons of that particular category. (+2, -0.5)



How many lady constables are NOT married?

- a. 12
- b. 15
- c. 14
- d. 8

16. Select the figure that will come next in the following figure series. (+2, -0.5)



17. Three of the following four letter-clusters are alike in a certain way and one is different. Pick the odd one out. (+2, -0.5)

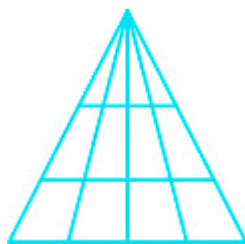
a. PUYBD

b. JOSVX

c. TYBEG

d. EJNQS

18. How many triangles are there in the figure given below? (+2, -0.5)



- a. 30
- b. 32
- c. 36
- d. 24

19. Three of the following four number-pairs are alike in a certain way and one is different. Pick the odd one out. (+2, -0.5)

- a. 14 : 196
- b. 12 : 244
- c. 4 : 16
- d. 2 : 4

20. 'Insulin' is related to 'Hormone' in the same way as 'Pepsin' is related to '_____'. (+2, -0.5)

- a. Vitamins
- b. Enzymes
- c. Digestion
- d. Stomach

21. Select the term that will replace the question mark (?) in the following series. (+2, -0.5)

A, G, L, ?, S, U, V

- a. Q
- b. P
- c. O
- d. N

22. Three of the following four words are alike in a certain way and one is different. Pick the odd word out. (+2, -0.5)

- a. Integrity
- b. Honesty
- c. Truthfulness
- d. Hypocrisy

23. The sum of the current ages of Natasha and Krishna is 50 years. 10 years ago, Krishna was twice as old as Natasha. What is Krishna's current age? (+2, -0.5)

- a. 10 years
- b. 20 years
- c. 15 years
- d. 30 years

24. A + B means 'A is the mother of B'

(+2, -0.5)

A - B means 'A is the father of B'

A × B means 'A is the sister of B'

A ÷ B means 'A is the daughter of B'

If $P + R \times T - Q \div S + U$, then how is S related to T?

- a. Mother
- b. Sister
- c. Wife
- d. Daughter

25. Select the word-pair in which the two words are related in the same way as the two words in the following word-pair.

(+2, -0.5)

Walnut : Fig

- a. Almond : Dry fruits
- b. Turmeric : Spices
- c. Asafoetida : Cashew nuts
- d. Raisin : Apricot

General Awareness

26. Bhavai is a traditional dance form of _____. (+2, -0.5)

- a. Punjab
- b. Bihar
- c. Rajasthan
- d. Maharashtra

27. Cash Reserve Ratio (CRR) is calculated as a percentage of each bank's _____. (+2, -0.5)

- a. savings of customers
- b. rate of inflation
- c. credit growth
- d. net demand and time liabilities

28. Which of the following Indian authors is one of the four screenplay writers of the movie 'Kai Po Che'? (+2, -0.5)

- a. Chetan Bhagat
- b. Amish Tripathi
- c. Durjoy Datta
- d. Ravinder Singh

29. _____ became the most successful doubles player in the history of Davis Cup as on 2018. (+2, -0.5)

- a. Leon Smith
- b. Henri Leconte
- c. Mark Woodforde
- d. Leander Paes

30. The Indus Water Treaty was signed between India and _____. (+2, -0.5)

- a. China
- b. Afghanistan
- c. Pakistan
- d. Bangladesh

31. The 'Friendship Highway' is a road that connects China to _____. (+2, -0.5)

- a. India
- b. Pakistan
- c. Nepal
- d. Myanmar

32. Which Indian author wrote the book 'The English Teacher'?' (+2, -0.5)

- a. Khushwant Singh
 - b. R. K Narayan
 - c. Ruskin Bond
 - d. Vikram Seth
-

33. In which province of China is the Huangguoshu National Park located which houses the world's largest waterfall cluster. (+2, -0.5)

- a. Guizhou
 - b. Jiangsu
 - c. Shandon
 - d. Yunnan
-

34. Who among the following is the only Indian to have won the Amateur World title in both, snooker and billiards? (+2, -0.5)

- a. Pankaj Advani
 - b. Michael Ferreira
 - c. Geet Sethi
 - d. Subhash Agarwal
-

35. _____ assumed the title of 'Gangaikondachola', or the conqueror of the river Ganga. (+2, -0.5)

- a. Rajaraja Chola I

- b. Rajadhiraja Chola
 - c. Rajendra Chola I
 - d. Vijayalaya Chola
-

36. Night Blindness is caused by the deficiency of Vitamin _ _ _ _ _ . (+2, -0.5)

- a. B₁₂
 - b. A
 - c. C
 - d. K
-

37. When was the Constitution of Pakistan enforced? (+2, -0.5)

- a. 1952
 - b. 1973
 - c. 1965
 - d. 1947
-

38. Which of the following was a port city of the Indus Valley Civilization? (+2, -0.5)

- a. Kalibangan
- b. Dholavira
- c. Lothal

d. Rakhigarhi

39. In which year was the 'Battle of Goda' fought? (+2, -0.5)

a. 1510

b. 1514

c. 1524

d. 1502

40. In which part of the flower does fertilisation take place? (+2, -0.5)

a. Filament

b. Ovary

c. Stigma

d. Style

41. About 70% of the sun is made up of _____. (+2, -0.5)

a. Helium

b. Carbon

c. Oxygen

d. Hydrogen

42. The former princely state of Tripura in the north-eastern part of India was ruled by _____ Dynasty. (+2, -0.5)

- a. Haihaya
- b. Ahom
- c. Manikya
- d. Nagvanshi

43. DNA is stored majorly in _____ of the cell. (+2, -0.5)

- a. cytoplasm
- b. golgi body
- c. nucleus
- d. plasma membrane

44. The 'Tanakh' is the sacred text of which religion/sect? (+2, -0.5)

- a. Confucianism
- b. Judaism
- c. Taoism
- d. Zen Buddhism

45. In 2019, Harsh Vardhan, the union minister for Environment, Forest and Climate Change launched the India Cooling Action Plan (ICAP). On which

day was ICAP released?

- a. 26th January
- b. 15th February
- c. 8th March
- d. 27th February

46. The phrase 'Survival of the fittest' as a way of describing the mechanism of natural selection was coined by _____. (+2, -0.5)

- a. Herbert Spencer
- b. Louis Pasteur
- c. Marie Curie
- d. Charles Babbage

47. The interest rate charged by banks on short-term loans to their largest, most secure and most creditworthy customers is called _____. (+2, -0.5)

- a. Amortised Rate
- b. Discount Rate
- c. Prime Lending Rate
- d. Variable Rate

48. World Water Day is annually celebrated on _____. (+2, -0.5)

- a. 13th August
 - b. 15th January
 - c. 22nd March
 - d. 2nd June
-

49. Which one of the following is the highest altitude lake of Pakistan? (+2, -0.5)

- a. Attabad Lake
 - b. Paristan Lake
 - c. Rush Lake
 - d. Satpara Lake
-

50. The Constitution of India was amended for the first time in which year? (+2, -0.5)

- a. 1961
- b. 1954
- c. 1951
- d. 1960

Your Personal Exams Guide

Quantitative Aptitude

51. The radii of the two circular faces of the frustum of a cone of height 14 cm are 5 cm and 2 cm. What is its volume in cm^3 ? ($\pi = 22/7$) (+2, -0.5)

- a. 520
- b. 540
- c. 572
- d. 560

52. **Direction :** This table shows the number of students studying in various streams in different colleges. (+2, -0.5)

Streams	College				
	A	B	C	D	E
Arts	580	460	320	470	370
Science	620	680	540	360	400
Commerce	480	520	350	520	330

The number of students in the science stream of college C is approximately what percentage of students studying in that college?

- a. 42%

b. 43%

c. 44%

d. 45%

53. **Direction :** This table shows the number of students studying in various streams in different colleges. (+2, -0.5)

Streams	Collage				
	A	B	C	D	E
Arts	580	460	320	470	370
Science	620	680	540	360	400
Commerce	480	520	350	520	330

What is the ratio of the number of students studying science in collages A and B together to the number of students studying commerce in colleges D and E together?

a. 26 : 17

b. 13 : 8

c. 23 : 15

d. 21 : 17

54. A train without stoppage travels with an average speed of 80 km/h and (+2, -0.5)
with stoppage, it travels with an average speed of 72 km/h. For how many
minutes does the train stop on an average per hour?

- a. 8
- b. 7
- c. 9
- d. 6

55. The price of sugar is increased by 21%. A person wants to increase his (+2, -0.5)
expenditure by 12% only. By what percent, correct to one decimal place,
should he reduce his consumption?

- a. 7.4%
- b. 7.8%
- c. 7.6%
- d. 7.2%

56. In a circle with centre O, AB is the diameter and CD is a chord such that (+2, -0.5)
ABCD is a trapezium. If $\angle BAC = 24^\circ$, then $\angle CAD$ is equal to:

- a. 48
- b. 42
- c. 24
- d. 36

57. **Direction :** This table shows the number of students studying in various streams in different colleges.

(+2, -0.5)

Streams	Collage				
	A	B	C	D	E
Arts	580	460	320	470	370
Science	620	680	540	360	400
Commerce	480	520	350	520	330

If the data about students of the commerce stream in all colleges is represented by a pie-chart, what is the central angel of the sector representing college D, to the nearest degree?

- a. 80°
- b. 85°
- c. 88°
- d. 82°

58. The difference between the compound interest and simple interest on Rs. X at 12% per annum for 2 years is Rs. 18. What is the value of x?

(+2, -0.5)

- a. 1,340

b. 1,250

c. 1,300

d. 1,280

59. In $\triangle ABC$, P is a point on BC such that $BP : PC = 1 : 2$ and Q is the midpoint of BP. Then, $\text{ar}(\triangle ABQ) : \text{ar}(\triangle ABC)$ is (+2, -0.5)

a. 1 : 5

b. 1 : 4

c. 1 : 6

d. 1 : 3

60. The value of $\sin^2 48^\circ + \sin^2 42^\circ - \sec^2 30^\circ + \tan^2 60^\circ$ is equal to: (+2, -0.5)

a. $8/3$

b. $7/3$

c. 2

d. $5/3$

61. A is 50% more efficient than B and C is 40% less efficient than B. Working together, they can complete a task in 10 days. In how many days will A alone complete 150% of that task? (+2, -0.5)

a. 33

b. 28

c. 35

d. 31

62. $\triangle ABC \sim \triangle QPR$ and $AB = 8$ cm, $BC = 12$ cm and $AC = 6$ cm. If $ar(\triangle ABC) : ar(\triangle PQR) = 16 : 25$, then RQ is equal to (+2, -0.5)

a. 7.5 cm

b. 12.5 cm

c. 10 cm

d. 15 cm

63. If $\sec \theta = 13/5$, then $\tan \theta - \sin \theta + \cos \theta$ is equal to: (+2, -0.5)

a. $118/65$

b. $23/13$

c. $124/65$

d. $121/65$

64. If $\sin 5\theta = \cos (50^\circ - 3\theta)$, then θ is equal to (+2, -0.5)

a. 20°

b. 30°

c. 25°

d. 15°

65. Two chords AB and CD of a circle when produced, meet at a point P outside the circle. If AB = 6 cm, PB = 5 cm, PD = 5 cm, then CD is equal to: (+2, -0.5)

- a. 7.5 cm
- b. 9 cm
- c. 6 cm
- d. 8.25 cm

66. Two articles are sold for Rs. 2508 each. On one, there is a gain of 14% and on the other, there is a loss of 12%. What is the overall gain or loss percent to nearest one decimal place? (+2, -0.5)

- a. 0.5% loss
- b. 0.7% loss
- c. 0.7% gain
- d. 0.5% gain

67. If $\sqrt{x} + \frac{1}{\sqrt{x}} = \sqrt{7}$, then $x^3 + \frac{1}{x^3}$ is equal to: (+2, -0.5)

- a. 120
- b. 130
- c. 110
- d. 140

68. Find the value of $5.8 + (7.4 \div 3.7 \times 5) - 6 \times 2 \div 2.5$ (+2, -0.5)

- a. 11
- b. 12
- c. 9
- d. 10

69. If $a + b = 8$ and $ab = 32/3$, then $(a^3 + b^3)$ is equal to: (+2, -0.5)

- a. 320
- b. 256
- c. 384
- d. 128

70. An article is sold for Rs. 535.50 after two successive discounts of 25% and 15%. What is the marked price of the article? (+2, -0.5)

- a. Rs. 820
- b. Rs. 840
- c. Rs. 800
- d. Rs. 830

71. If $a + b + c = 4$ and $ab + bc + ca = 2$, then $a^3 + b^3 + c^3 - 3abc$ is equal to: (+2, -0.5)

- a. 32
- b. 36
- c. 40
- d. 48

72. **Direction :** This table shows the number of students studying in various streams in different colleges. (+2, -0.5)

Streams	Collage				
	A	B	C	D	E
Arts	580	460	320	470	370
Science	620	680	540	360	400
Commerce	480	520	350	520	330

What is the average of the number of students in the arts stream in all the colleges taken together?

- a. 450
- b. 440
- c. 460
- d. 470

73. For what value of x is the seven digit number $46393x8$ divisible by 11? (+2, -0.5)

- a. 5
- b. 2
- c. 7
- d. 3

74. In a class of 50 students, 46% are girls and the remaining are boys. The average of the boys' marks is 58 and that of the girls is 62. What are the average marks of the whole class? (+2, -0.5)

- a. 60.65
- b. 59.84
- c. 60.12
- d. 60.38

75. If $a : b = 5 : 8$ and $c : b = 4 : 3$, then $a : b : c$ is equal to: (+2, -0.5)

- a. 15 : 24 : 28
- b. 5 : 8 : 6
- c. 15 : 24 : 32
- d. 5 : 6 : 8

English Comprehension

76. Select the most appropriate option to substitute the underlined segment in the given sentence. If no substitution is required, select No improvement. (+2, -0.5)

He made a desperate but also partial successful effort to change the ghastly topic.

- a. No improvement
- b. though part successful effort
- c. yet also partial successful effort
- d. but a partially successful effort

-
77. Select the correctly spelt word. (+2, -0.5)

- a. manipulete
- b. manipulate
- c. menipulate
- d. manepulate

-
78. Select the most appropriate antonym of the given word. (+2, -0.5)

EXTRAVAGANT

- a. generous
- b. deficit

- c. thrifty
- d. pauper

79. Select the most appropriate option to substitute the underlined segment (+2, -0.5)
in the given sentence. If no substitution is required, select No improvement.

She was so tired to work any longer.

- a. No improvement
- b. so tired to not work
- c. too tired to work
- d. so tiring to work

80. The question below consists of a set of labelled sentences. Out of the four (+2, -0.5)
options given, select the most logical order of the sentences to form a
coherent paragraph.

- A. The first of these states that the only way to have a friend is to be one.
- B. Like all relationships, it is also governed by some well-defined principles.
- C. Friendship is one of the most coveted relationships on earth.
- D. Thus, one must be reliable as a friend to expect reliability in others.

- a. CBAD
- b. BDAC
- c. ACBD
- d. CDBA

81. In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

The Bhopal gas tragedy has been described as the world's (1) _____ industrial disaster. Forty two tonnes of methyl isocyanate (2) _____ from the steel containers (3) _____ the Union Carbide factory and released a cloud of (4) _____ gas. It left a legacy of instant and (5) _____ death.

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

- a. along
- b. across
- c. at
- d. beside

82. In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

The Bhopal gas tragedy has been described as the world's (1) _____ industrial disaster. Forty two tonnes of methyl isocyanate (2) _____ from the steel containers (3) _____ the Union Carbide factory and released a cloud of (4) _____ gas. It left a legacy of instant and (5) _____ death.

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

- a. emitted
- b. leaked

c. flowed

d. released

-
83. Select the most appropriate meaning of the underlined idiom in the given sentence. (+2, -0.5)

His success at such a young age speaks volumes for his talent.

a. showers praise

b. gives enough proof

c. publically announces

d. boasts a lot

-
84. Select the correct passive form of the given sentence (+2, -0.5)

It is time to serve dinner.

a. It is time that dinner is serve.

b. It is time for dinner to be served.

c. It is time so dinner should be served.

d. It is dinner serving time.

-
85. Select the most appropriate synonym of the given word. (+2, -0.5)

CONCISE

a. brief

b. lengthy

- c. complex
 - d. detailed
-

86. Select the most appropriate option to fill in the blank. (+2, -0.5)

The accident victim _ _ _ _ _ to his injuries before he could be taken to the hospital.

- a. subscribed
 - b. succumbed
 - c. submitted
 - d. surrendered
-

87. Given below are four jumbled sentences. Select the option that gives their correct order. (+2, -0.5)

- A. But that is for an emotional reason.
- B. Learning our mother tongue is important and everyone should start there.
- C. This is because proficiency in the language can lead to better opportunities.
- D. Learning English, however, is important for practical reasons.

- a. DBAC
- b. BADC
- c. DACB

d. BDCA

88. Select the correct active form of the given sentence. (+2, -0.5)

Superstitions are still believed in by people.

- a. People still believed in superstitions.
 - b. People have still believed in superstitions.
 - c. People still believe in superstitions
 - d. People are still believing in superstitions.
-

89. In the sentence identify the segment which contains the grammatical error. (+2, -0.5)

He is more smarter than his brother though he does not earn much money.

- a. though he does not earn
 - b. He is more smarter
 - c. much money
 - d. than his brother
-

90. Select the word which means the same as the group of words given. (+2, -0.5)

That which cannot be satisfied

- a. impossible
- b. incredible

- c. insatiable
- d. improbable

91. In the sentence identify the segment which contains the grammatical error. (+2, -0.5)

The child along with his parents were waiting for the programme to begin.

- a. along with his parents
- b. were waiting for the
- c. programme to begin
- d. The child

92. In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each blank. (+2, -0.5)

The Bhopal gas tragedy has been described as the world's (1) _____ industrial disaster. Forty two tonnes of methyl isocyanate (2) _____ from the steel containers (3) _____ the Union Carbide factory and released a cloud of (4) _____ gas. It left a legacy of instant and (5) _____ death.

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

- a. bad
- b. worse
- c. best
- d. worst

93. Select the most appropriate meaning of the underlined idiom in the given sentence. (+2, -0.5)

One must learn to prioritize in life. It never pays to put the cart before the horse.

- a. postpone till the last moment
- b. do things spontaneously
- c. do last things first
- d. perform many tasks simultaneously

94. Select the word which means the same as the group of words given. (+2, -0.5)

The act of looking back on past time

- a. circumspection
- b. introspection
- c. inspection
- d. retrospection

95. Select the most appropriate antonym of the given word. (+2, -0.5)

VIGILANT

- a. visible
- b. elusive
- c. careless

d. careful

-
96. In the following passage some words have been deleted. Fill in the blanks (+2, -0.5) with the help of the alternatives given. Select the most appropriate option for each blank.

The Bhopal gas tragedy has been described as the world's (1) _____ industrial disaster. Forty two tonnes of methyl isocyanate (2) _____ from the steel containers (3) _____ the Union Carbide factory and released a cloud of (4) _____ gas. It left a legacy of instant and (5) _____ death.

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

- a. abominable
- b. deadly
- c. merciless
- d. incurable

-
97. Select the most appropriate synonym of the given word. (+2, -0.5)

EXALT

- a. extract
 - b. challenge
 - c. condemn
 - d. praise
-

98. Select the most appropriate option to fill in the blank. (+2, -0.5)

We should never _ _ _ _ _ with the rules of driving.

- a. reckon
- b. trifle
- c. tamper
- d. temper

99. Select the correctly spelt word. (+2, -0.5)

- a. arguement
- b. argument
- c. argeument
- d. arguemant

100. In the following passage some words have been deleted. Fill in the blanks (+2, -0.5)
with the help of the alternatives given. Select the most appropriate option
for each blank.

The Bhopal gas tragedy has been described as the world's (1) _ _ _ _ _
industrial disaster. Forty two tonnes of methyl isocyanate (2) _ _ _ _ _
from the steel containers (3) _ _ _ _ _ the Union Carbide factory and
released a cloud of (4) _ _ _ _ _ gas. It left a legacy of instant and (5)
_ _ _ _ _ death.

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

- a. averted

- b. detained
- c. momentary
- d. deferred

Prepp

Your Personal Exams Guide

Answers

1. Answer: a

Explanation:

If we look closely, figure is hidden in option figure 1 as shown below.



Hence, answer should be "Option 1".

2. Answer: d

Explanation:

Pattern followed here is,

Taking 1st column,

$$4^2 + 5^2 \Rightarrow 16 + 25 = 41;$$

Similarly for 2nd column,

$$6^2 + 3^2 \Rightarrow 36 + 9 = 45;$$

For 3rd column,

$$7^2 + x^2 = 58,$$

$$x^2 = 58 - 49,$$

$$x^2 = 9,$$

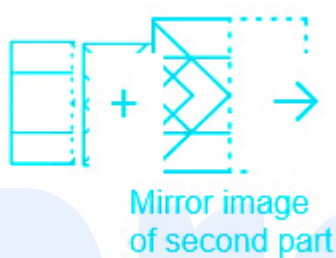
$x = \text{Either } +3 \text{ or } -3,$

Here all the terms and the given options are positive integers.

Hence, "3" is the correct answer.

3. Answer: c

Explanation:



Hence, the above figure will be the final figure.

4. Answer: a

Explanation:

These organs are to be arranged on the basis of position of organs in the body from top to bottom.

So, correct arrangement will be Brain > Thyroid gland > Heart > Liver > Kidney.

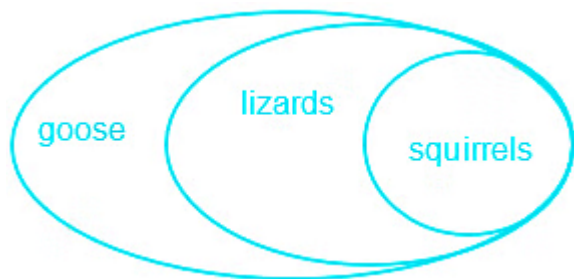
Hence, the correct order will be 3, 4, 2, 5, and 1.

5. Answer: a

Explanation:

Statement I: All squirrels are lizards.

Statement II: All lizards are goose.



Conclusion:

I: Some squirrels are not goose $\rightarrow$ False.

II: Some lizards are squirrels $\rightarrow$ True.

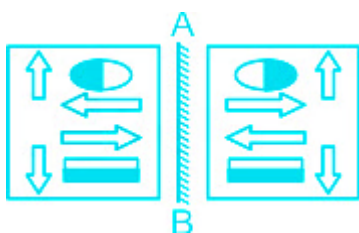
III: Some goose are squirrels $\rightarrow$ True.

Hence, "Conclusion II and III" follows.

6. Answer: c

Explanation:

The image I flipped horizontally



Hence, "Option 3" is the correct answer

7. Answer: a

Explanation:

The pattern follow here is,

$$120 + 8 = 128;$$

$$128 + 16 = 144;$$

$$144 + 24 = 168;$$

$$168 + 32 = \mathbf{200};$$

$$200 + 40 = 240;$$

Hence, "200" is a term which will complete the series.

8. Answer: d

Explanation:

Logic follow here is,

In case of 16 : 240,

$$16 : ((16)^2 - 16) \rightarrow 16 : (256 - 16)$$

$$= 16 : 240;$$

Similarly,

$$6 : ((6)^2 - 6) \rightarrow 6 : (36 - 6)$$

$$= \mathbf{6 : 30}$$

Hence, "30" is the correct answer.

9. Answer: a

Explanation:

The pattern follow here is,

Taking 1st column,

$$\sqrt{9} + 6 \Rightarrow 3 + 6 = 9;$$

Similarly for 2nd column,

$$\sqrt{25} + 11 \Rightarrow 5 + 11 = 16;$$

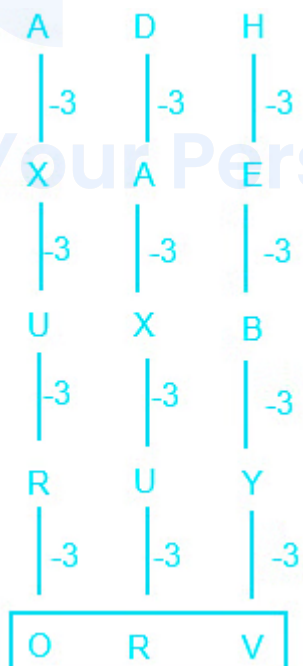
For 3rd row,

$$\sqrt{49} + 13 \Rightarrow 7 + 13 = 20 ;$$

Hence, "20" is the correct answer.

10. Answer: b

Explanation:



Hence, "ORV" is the correct answer.

11. Answer: d

Explanation:

Given Equation: $27 \div 3 - 18 + 3 \times 2 = 18$

Let's check each option,

1) Interchanging $\div$ and $\times$

Equation will become: $- 27 \times 3 - 18 + 3 \div 2$

$$81 - 18 + 1.5 \neq 18$$

2) Interchanging $\times$ and $+$

Equation will become: $- 27 \div 3 - 18 \times 3 + 2$

$$9 - 54 + 2 \neq 18$$

3) Interchanging $+$ and $-$

Equation will become: $- 27 \div 3 + 18 - 3 \times 2$

$$8 + 18 - 6 \neq 18$$

4) Interchanging $+$ and $\div$

Equation will become: $- 27 + 3 - 18 \div 3 \times 2$

$$27 + 3 - 6 \times 2$$

$$30 - 12 = 18$$

Thus, interchanging “+ and $\div$ ” we get the correct answer.

12. Answer: a

Explanation:

The symbol # appears in 2 dice position i.e. 1st and 2nd from which it is evident that \$, &, + and * are adjacent to it and cannot be opposite to #. From this we can conclude that # will face opposite to %.

Similarly, + appears in 2 dice positions i.e. 2nd and 3rd from which it is evident that #, *, &, % are adjacent to it and cannot be opposite to +. So, + will face opposite to \$.

From the above conclusions we can conclude that * and & will face each other.

Hence, "&" is the correct answer.

13. Answer: a

Explanation:

Pattern follow here is,



Similarly for word NOSTALGIA,



Hence, NOSTALGIA can be coded as "ONT SBGLAI".

14. Answer: d

Explanation:

According to given coding language,

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

P	I	C	T	U	R	E
16	9	3	20	21	18	5

Similarly for FUNCTION,

F	U	N	C	T	I	O	N
6	21	14	3	20	9	15	14

Hence, "FUNCTION" can be coded as "6211432091514".

15. Answer: a

Explanation:

Circle represents 'Ladies', Triangle represents 'Constables' and Square represents 'Married persons'.

Number of lady constable not married i.e. number which represent the intersection of Circle and Triangle but not Square, which is number "12".

Hence, "12" is the correct answer.

16. Answer: c

Explanation:

In the above series dot in the circle is positioned at the edges and is moving clockwise. Plus is positioned at the side of the hexagon and is moving in anticlockwise direction. Both the symbols are moving positions in increasing order consecutively i.e. in +1 in figure 2, +2 in figure three and +3 in figure 4. Hence, in figure 5 (missing figure) they will move + 4 in respective directions.



Hence, the above figure is the correct answer.

17. Answer: c

Explanation:

Checking each option,

1) PUYBD →

P $\xrightarrow{+5}$ U $\xrightarrow{+4}$ Y $\xrightarrow{+3}$ B $\xrightarrow{+2}$ D

2) JOSVX $\rightarrow$

J $\xrightarrow{+5}$ O $\xrightarrow{+4}$ S $\xrightarrow{+3}$ V $\xrightarrow{+2}$ X

3) TYBEG $\rightarrow$

T $\xrightarrow{+5}$ Y $\xrightarrow{+3}$ B $\xrightarrow{+3}$ E $\xrightarrow{+2}$ G

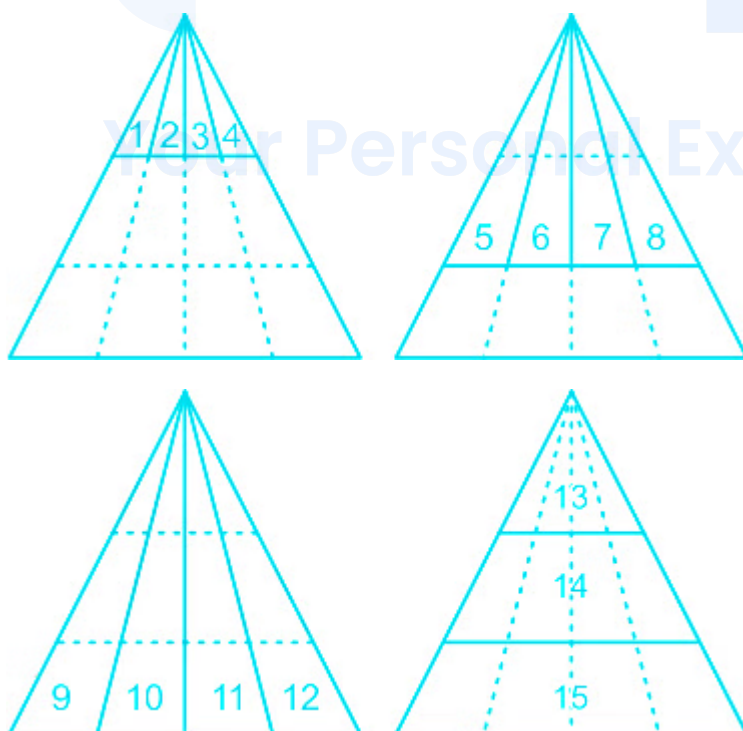
4) EJNQS $\rightarrow$

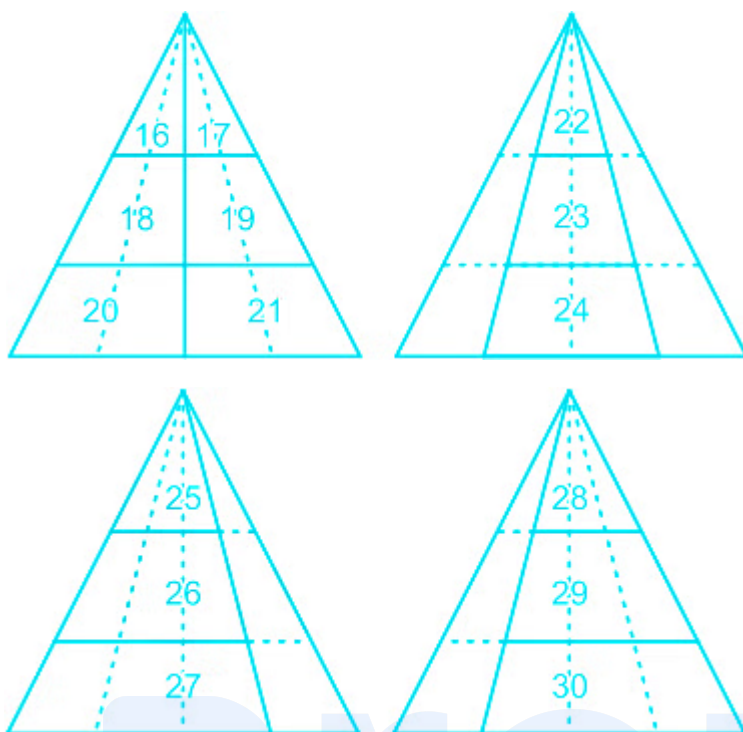
E $\xrightarrow{+5}$ J $\xrightarrow{+4}$ N $\xrightarrow{+3}$ Q $\xrightarrow{+2}$ S

Hence, "TYBEG" is the odd one among the following options.

18. Answer: a

Explanation:





Hence, "30" is the correct answer.

19. Answer: b

Explanation:

The pattern follow here is,

$$14 : (14)^2 \Rightarrow 14 : 196,$$

$$12 : (12)^2 \Rightarrow 12 : 144 ,$$

$$4 : (4)^2 \Rightarrow 4 : 16,$$

$$2 : (2)^2 \Rightarrow 2 : 4,$$

Hence, "12 : 244" is the odd one out from the given option.

20. Answer: b

Explanation:

Insulin is a hormone. Similarly, Pepsin is an enzyme.

Hence, Enzymes is the correct answer.

21. Answer: b**Explanation:**

The pattern follow here is,

A $\xrightarrow{+6}$ G $\xrightarrow{+5}$ L $\xrightarrow{+4}$ P $\xrightarrow{+3}$ S $\xrightarrow{+2}$ U $\xrightarrow{+1}$ V

Hence, "P" is the correct answer.

22. Answer: d**Explanation:**

Integrity, Honesty and Truthfulness are positive qualities in the personality of a person whereas Hypocrisy is a negative quality in the personality of a person. Hence, Hypocrisy is the odd word out.

23. Answer: d**Explanation:**

Let the age of Natasha be "x" and age of Krishna be "y".

As per statement given in question:

$$x + y = 50 \quad \dots(i) \text{ and}$$

Ten years ago:

$$\text{Natasha} = x - 10 \text{ years old}$$

$$\text{Krishna} = y - 10 \text{ years old}$$

$$\rightarrow y - 10 = 2(x - 10)$$

$$\rightarrow 2x - y = 20 - 10 \quad \dots(ii)$$

From both the equations (i) and (ii)

$$\rightarrow 2x + 2y = 100$$

$$\rightarrow 2x - y = 10$$

$$\rightarrow 3y = 90 \rightarrow y = 30$$

And $x = 20$.

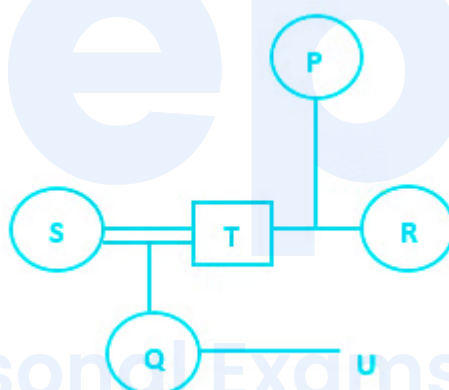
Hence, Krishna's age is 30 years.

24. Answer: c

Explanation:

Symbol in Diagram	Meaning
○	Female
□	Male
==	Married Couple
—	Siblings
	Difference of A Generation

According to the question, $P + R \times T - Q \div S + U$ can be decoded as P is mother of R, R is sister of T, T is father of Q, Q is daughter of S, S is mother of U.



From the above arrangement, S is wife of T.

Hence, "Wife" is the correct answer.

25. Answer: d

Explanation:

Here, Walnut and Fig both are fruits of a tree. In the pair Raisin and Apricot, also both are fruits of a tree. In all other pairs first is type of second element of the pair or not related as in the given pair. Hence, Raisin and Apricot is the related pair.

26. Answer: c

Explanation:

- Bhawai is performed with enormous skill this dance is an exciting pot balancing dance of the snake charmer tribe.
- It demonstrates the art of dancing and revolving even while balancing many articles and items on one's head.

Folk Dances	States
Dhimsa	Andhra Pradesh
Giddha Parhaun	Himachal Pradesh
Bhavai	Rajasthan
Phaag	Haryana

27. Answer: d

Explanation:

The correct answer is Option 4 i.e. net demand and time liabilities

★ Key Points

- **The cash reserve ratio (CRR)** is the mandatory deposit to be held by banks with the Reserve Bank of India.
- It is calculated daily on the basis of the bank's net demand and time liabilities with the objective to ensure the liquidity and solvency of the banks.
- The current rate of CRR is 4.50% (**As of December 2022**).

28. Answer: a

Explanation:

- The bollywood film ' **Kai Po Che** ' was based on **Chetan Bhagat's** novel 'The 3 **Mistakes of My Life**' released in 2013.
- It was **directed** by **Abhishek Kapoor** and **Pubali Chaudhari**, **Supratik Sen**, **Abhishek Kapoor** and **Chetan Bhagat** were the **screenplay writers** of the film.
- The film had **received 6 nominations** at the **59th Filmfare Awards** and it **won two awards** , including **Best Screenplay for Kapoor** and **Best Background Score** for **Hitesh Sonik** .

29. Answer: d

Explanation:

- India's **Leander Paes** after winning his **43rd Davis Cup doubles** rubber **against China in April 2018** became the **most successful player** in the history of Davis Cup.
- **Leander Paes** teamed up with **Rohan Bopanna** broke the record of **Italy's Nicola Pietrangeli** with the **most doubles wins** in **Davis Cup history** .
- He is one of the most experienced tennis players in the world.
- He made his **Davis Cup debut in 1990** and has since **competed in 56 ties** , amassing a total win-loss record in **singles** and **doubles of 91-35** .

30. Answer: c

Explanation:

The correct answer is **Pakistan**.

★ Key Points

- The Indus Water Treaty (IWT) is a water-distribution treaty between **India and Pakistan** which was signed on **September 19, 1960**.
- The treaty was signed by **Prime Minister Jawaharlal Nehru** and **Pakistan's President Ayub Khan**.
- The treaty deals with river Indus and its five tributaries.

These are divided into two categories -

Eastern Rivers:

- Sutlej
- Beas
- Ravi

Western Rivers:

- Jhelum
- Chenab
- Indus

According to the treaty, all the water of the eastern rivers shall be available for unrestricted use in India, and India must allow unrestricted flow of water from the western rivers to Pakistan.

31. **Answer: c**

Explanation:

- The '**Friendship Highway**' also known as the **China-Nepal Highway**, connects the **capital of Tibet, Lhasa** with the **Nepalese-Chinese border** between **Zhangmu and Kodari**.
- The 800-kilometre long '**Friendship Highway**' goes through the Himalayan mountains and along the **Yarlung valley** upto **Shigatse**, **Tibet's second-largest city** and formerly the **home of the Panchen Lamas**.

32. Answer: b

Explanation:

- The **English Teacher** is a 1945 novel written by **R. K. Narayan**. It is the third and final part in the 'Malgudi Days' series, preceded by *Swami and Friends* (1935) and *The Bachelor of Arts* (1937).
- This novel, dedicated to Narayan's wife Rajam is not only autobiographical but also poignant in its intensity of feeling.
- The story is a series of experiences in the life of Krishna, an English teacher, and his quest towards achieving inner peace and self - development.

33. Answer: a

Explanation:

- **Huangguoshu National Park** of China is located in west Guizhou province .
- It is 128 km from **Guiyang** and 45 km from **Anshun** , a tourist destination in West China .
- **Huangguoshu** is also the largest waterfalls in China and East Asia located on the Baishui River in Anshun in the same province .

34. Answer: a

Explanation:

- **Pankaj Advani** is the only Indian to have won the Amateur World title in both ,snooker and billiards .
- He is the only snooker player to ever win professional world titles in both the long and short formats of snooker and both formats of English billiards.
- Pankaj Advani has also won country's most prestigious awards **Padma Shri** in 2009 ,**Rajiv Gandhi Khel Ratna** in 2006 and **Arjuna Award** in 2004 .

35. Answer: c

Explanation:

- Indian king Rajendra Chola-I used naval powers to conquer parts of East Asia.
- He defeated Sri Vijaya or the Kadaram kingdom in East Asia and bore the title Kadaramkonda.
- He belongs to the Imperial Chola Dynasty.
- His reign was from 1012–1044 A.D.
- He built a city called Gangaikonda Cholapuram to commemorate his victory in his northern India campaign which spanned up to Ganges River, where he defeated Bengal king Mahipala-I.
- Therefore, he assumed the title of 'Gangaikondachola' or the conqueror of the river Ganga.

36. Answer: b

Explanation:

- Night blindness results in loss of vision in the dark and is caused by the deficiency of Vitamin A.
- Nyctalopia (night blindness) is one of the first signs of Vitamin A deficiency.
- Xerophthalmia, Keratomalacia, and complete blindness can also occur since vitamin A has a major role in phototransduction.

Vitamin B 12	Affects the nervous system and weakness	Weak muscles and energy loss
Vitamin C	Scurvy	Bleeding gums and slow reparation of wounds
Vitamin K	Excessive bleeding	Blood doesn't clot and the wounds keep on bleeding

37. Answer: b

Explanation:

- The **National Assembly of Pakistan** passed it's **Constitution on 10th April, 1973** .
- The **President of the constituent Assembly** authenticated it on **12th April 1973** and the Assembly published the Constitution of the Islamic Republic of Pakistan.
- After partitioned from India, Pakistan was **declared as an Islamic Republic** and it was made **mandatory** that **only a Muslim could become the President of the country** .

38. Answer: c

Explanation:

- **Lothal** is a port city in Gujarat, located on the banks of the Bhogava River, a right tributary of the Sabarmati River.
- It had the earliest known dock in the world, used mainly for trade purposes in the Indus Valley Civilization.
- Lothal is situated in the Ahmedabad District in modern Gujarat.

- It is considered a port town according to the Archaeological Survey of India.
-

39. Answer: a

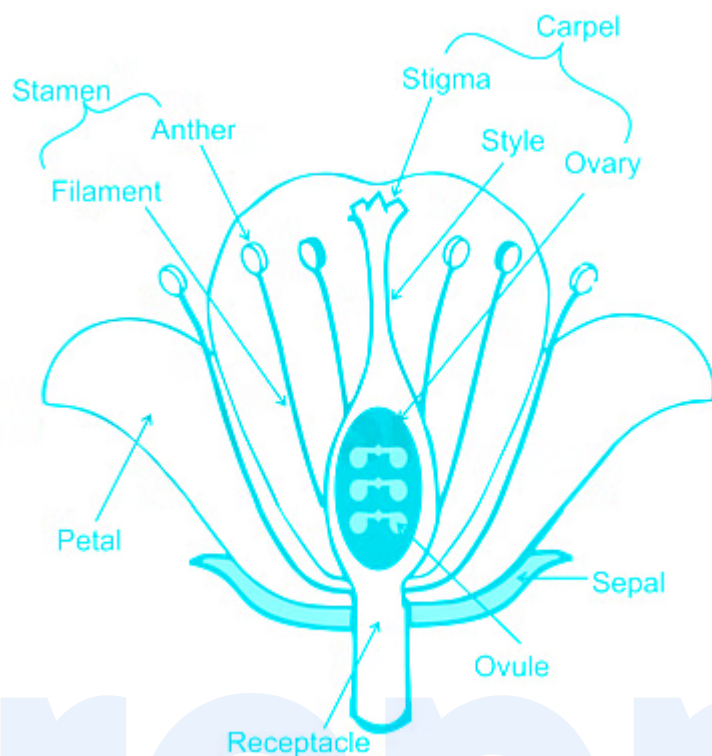
Explanation:

- Afonso de Albuquerque succeeded Dom Francisco de Almeida as Governor of the Portuguese State of India on November 4, 1509.
 - The Marshal of Portugal Dom Fernando Coutinho, sent by King Manuel had been ordered to enforce the orderly succession of Albuquerque to office.
 - In 1510, the governor of Portuguese India Afonso de Albuquerque captured the city of Goa.
-

40. Answer: b

Explanation:

- **Carpels**, present in the centre of a flower, form the female reproductive part. It is surrounded by male reproductive structures called stamens.
- The carpels and stamens are surrounded by petals.
- The petals are protected by sepals, which are green.
- The carpels are the female reproductive part of the flower. It is divided into three parts namely- ovary, style and stigma.
- The **ovary contains ovules and the style acts as a passage for the pollen tubes** carrying the male gametes.
- The stigma is the terminal part of the carpel which is receptive and it receives the pollen grains and provides nutrition for the growth and development of the pollen tube which carries male gametes through style and reaches the ovules to fertilise an egg.



41. Answer: d

Explanation:

- Sun is the most **hot glowing sphere of Plasma** at the **centre of the solar system** .
- It is made of gases and most of it is **hydrogen (about 70%)** and **helium (about 28%)**.
- While **carbon, nitrogen and oxygen** make up **1.5%** and the **other 0.5%** is made up of other elements like **neon, iron, silicon, magnesium and sulfur** .
- It is one of most **important sources of energy for life on earth** .

42. Answer: c

Explanation:

- The former **princely state of Tripura** in the north-eastern part of India was ruled by **Manikya dynasty** .
 - **Ratna Fa** was the **145th king of Twipra** and he was the **first to assume the title Manikya** and as such can be considered the **founder of the Manikya dynasty** .
 - The **first king of Twipra is Chandra** , the moon himself but the **list of historical begins with Ratna Fa only** .
-

43. Answer: c

Explanation:

- DNA – **deoxyribonucleic acid** is a form of a double helix carrying genetic **instructions** in **humans** and **almost all other organisms** .
 - DNA is mostly located in the **cell nucleus** but it **also found in mitochondria** in a small amount.
 - The **DNA strands** are composed of monomeric units called **nucleotides** which is composed of **four nitrogen-containing nucleobases** like **cytosine, guanine, adenine, thymine** are called deoxyribose.
-

44. Answer: b

Explanation:

- The Torah is part of the larger text known as the Tanakh or the Hebrew Bible.
 - 'The Torah' is the central reference of Judaism. It has a range of meanings. It can most specifically mean the first five books of the 24 books of the Tanakh, and it usually includes the rabbinic commentaries.
 - It is supplemental oral tradition represented by later texts such as the Midrash and the Talmud.
 - With between 14.5 and 17.4 million adherents worldwide, Judaism is the tenth largest religion in the world.
-

45. Answer: c

Explanation:

- Ministry for Environment, Forest and Climate Change launched 'India Cooling Action Plan' (ICAP) on 8 March 2019.
- ICAP is a 20-year road map (2018 to 2038) to address the cooling requirements for all sectors such as buildings, cold chain, transport and refrigeration.
- It aims to reduce cooling demand across sectors by 20% to 25% and reduce refrigerant demand by 25% to 30% by 2037-38.

46. Answer: a

Explanation:

- 'Survival of the fittest' is a phrase that comes from the principle of natural selection which was given by Charles Darwin.
- The phrase was actually **used first by Herbert Spencer** after reading Darwin's book 'On the Origin of Species'.
- It originated from the Darwinian Evolutionary theory and reproductive success is the biological concept of it.
- In simpler terms, it means, that the form which will leave the most copies of itself in the successive generations will survive.

47. Answer: c

Explanation:

- Benchmark prime lending rate or prime rate is the interest rate that commercial banks charge their most creditworthy customers.
- Prime lending rate, is largely determined by the federal funds rate, which is the overnight rate that banks use to lend to one another.

- The prime rate is also important for individual borrowers, as the prime rate directly affects the lending rates available for a mortgage, small business loan or personal loan.
- Generally, the prime rate is reserved for only the most qualified customers, determined as those who pose the least amount of risk of default.
- RBI's REPO rate and CRR affect the benchmark prime lending rate.

48. Answer: c

Explanation:

- World Water Day is celebrated annually on **22nd March**.
- The day aims to draw attention to the importance of universal access to clean water, sanitation and hygiene (WASH) facilities in developing countries.
- The day also focuses on advocating for the sustainable management of freshwater resources.
- Theme: "Leaving no one behind".
- This is an adaptation of the central promise of the 2030 Agenda for Sustainable Development: as sustainable development progresses, everyone must benefit.

49. Answer: c

Explanation:

- The **highest lake in Pakistan** is the **Rush Lake** located in **Nagar Valley ,Gilgit – Baltistan** at an **altitude of over 4,700 meters** near the **Rush Pari Peak** .
- It is also the **25th highest lake is the world** .
- The **second highest lake in Pakistan** is the **Karambar Lake** , which at an **altitude of 4,272 meters** , is the **31st highest lake in the world** .
- It is also **one of the highest alpine lakes in the world** .

50. Answer: c

Explanation:

- The **Constitution of India** was amended for the **first time on 10th May 1951**.
- The **Statement of Objects and Reasons** appended to the **Constitution (First Amendment) Bill, 1951** was **enacted as the Constitution (First Amendment) Act, 1951**.
- The **first amendment added Article 15(4) and Article 19(6)** and also brought **changes in the right to property** in pursuance after the decision of Supreme Court **regarding Fundamental Right of the Citizens**.

51. Answer: c

Explanation:

Radii of two circular faces of the frustum of a cone are 5 cm and 2 cm

Height of the circular frustum of cone $H = 14$ cm

As we know,

Volume of the frustum of cone $= \frac{1}{3} \times \pi [R^2 + r^2 + Rr] H$

$$\Rightarrow \frac{1}{3} \times \frac{22}{7} \times [5^2 + 2^2 + 5 \times 2] \times 14$$

$$\Rightarrow \frac{22}{3} \times [25 + 4 + 10] \times 2$$

$$\Rightarrow \frac{22}{3} \times 39 \times 2$$

$$\Rightarrow 572$$

52. Answer: d

Explanation:

Total number of students of college C = $320 + 540 + 350 = 1210$

Number of students in science stream of college C = 540

Required percentage = $[540/1210] \times 100 = 44.66\% = 45\%$ (approx)

53. Answer: a**Explanation:**

Total number of students studying science in collages A and B together = $620 + 680 = 1300$

Total number of students studying commerce in colleges D and E together = $520 + 330 = 850$

Required ratio = $1300 : 850 = 26 : 17$

54. Answer: d**Explanation:**

Without stoppage average speed = 80 km/h

With stoppages average speed = 72 km/h

As we know,

Time of rest per hour equal to the difference in average speed divided by the speed without stoppage.

Required time = $[(80 - 72)/80] \times 60 = 6$

So, A train stops on an average 6 minute/hr

55. Answer: a

Explanation:

Given:

The price of sugar is increased by 21%. A person wants to increase his expenditure by 12%.

Calculation:

Let the initial price of sugar be $100x$

Price of sugar after increased = $100x \times [121 / 100] = 121x$

Person wants his expenditure increase by 12% only,

So, his expenditure should be = $100x \times [112 / 100] = 112x$

Required percentage = $[(121x - 112x) / 121x] \times 100 = 7.43\% \approx 7.4\%$

★ **Alternate Method**

NOTE– This is a short trick method to solve these type of questions.

Expenditure = Price $\times$ Consumption

$$112/100 = 121/100 \times y$$

$$y = 112/121$$

Therefore, the reduction in consumption = $121 - 112 = 9$

Therefore, Percentage reduction = $9/121 \times 100 = 7.43\% \approx 7.4\%$

56. Answer: b

Explanation:

Given, $\angle BAC = 24^\circ$

$\Rightarrow \angle ACB = 90^\circ$ [Angle in a semicircle is 90°]

In $\triangle ACB$

$\Rightarrow \angle ACB + \angle CBA + \angle BAC = 180^\circ$

$\Rightarrow \angle CBA = 180^\circ - 90^\circ - 24^\circ = 66^\circ$

$\Rightarrow \angle BDC = \angle CAB = 24^\circ$ [Alternate interior angle]

$\Rightarrow \angle DCA = \angle ABD = 24^\circ$ and $\angle CAD = \angle DBC$

$\therefore$ Two inscribed angles forming the same arc or forming two equal arcs are equal.

$\Rightarrow \angle CBA = \angle DBC + \angle ABD$

$\Rightarrow 66^\circ = \angle DBC + 24^\circ$

$\Rightarrow \angle DBC = 66^\circ - 24^\circ = 42^\circ$

$\Rightarrow \angle CAD = \angle DBC = 42^\circ$

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57. Answer: b

Explanation:

Number of students of the commerce stream in all colleges = $480 + 520 + 350 + 520 + 330 = 2200$

Number of students of college D in commerce stream = 520

2200 students represents = 360°

520 students will represent = $[360^\circ/2200] \times 520 = 85^\circ$ (approx)

58. Answer: b

Explanation:

As we know,

Difference between the compound interest and simple interest for 2 years formula,

Given, $r = 12\%$, time = 2 years and $P = x$

$$\Rightarrow Pr^2 / (100)^2 = \text{difference}$$

$$\Rightarrow (P \times 12 \times 12) / 100 \times 100 = 18$$

$$\Rightarrow P = 1250$$

59. Answer: c

Explanation:

Given, $BP : PC = 1 : 2$ or $BP : PC = 2 : 4$

Let PB be 2 units and PC be 4 units

$$BC = BP + PC = 2 + 4 = 6 \text{ unit}$$

If Q is the midpoint of BP, then $BQ = QP$

$$BQ = BP / 2 = 2 / 2 = 1 \text{ unit}$$

$$\text{ar}\Delta ABQ : \text{ar}\Delta ABC = BQ : BC$$

$$\text{ar}\Delta ABQ : \text{ar}\Delta ABC = 1 : 6$$

60. Answer: a

Explanation:

$$\sin^2 48^\circ + \sin^2 42^\circ - \sec^2 30^\circ + \tan^2 60^\circ$$

$$\Rightarrow \sin^2 48^\circ + \cos^2 (90^\circ - 42^\circ) - (2/\sqrt{3})^2 + (\sqrt{3})^2$$

$$\Rightarrow \sin^2 48^\circ + \cos^2 48^\circ - 4/3 + 3 [\sin(90 - \theta) = \cos \theta \text{ and } \sin^2 \theta + \cos^2 \theta = 1]$$

$$\Rightarrow 1 - 4/3 + 3$$

$$\Rightarrow 4 - 4/3$$

$$\Rightarrow 8/3$$

61. Answer: d

Explanation:

Let the efficiency of B be 100.

Efficiency of A will be = $100 \times [150/100] = 150$

Efficiency of C will be = $100 \times [60/100] = 60$

Efficiency ratio of A, B and C = $150 : 100 : 60 = 15 : 10 : 6$

Total work = $(15 + 10 + 6) \times 10 = 310$

150% of total work = $310 \times [150/100] = 465$

150% of total work A will complete in = $465/15 = 31$ days

62. Answer: a

Explanation:

⇒ Given $\Delta ABC \sim \Delta QPR$,

⇒ $AB = 8 \text{ cm}$, $BC = 12 \text{ cm}$, $AC = 6 \text{ cm}$ and $\text{ar}(\Delta ABC)/\text{ar}(\Delta PQR) = 16/25$

As we know,

⇒ $(AC/RQ)^2 = \text{ar}(\Delta ABC)/\text{ar}(\Delta PQR)$

⇒ $6^2/RQ^2 = 16/25$

⇒ $RQ^2 = 6^2 \times 25/16$

⇒ $RQ = 6 \times 5/4 = 7.5 \text{ cm}$

★ Mistake Points

Here $\Delta ABC \sim \Delta QPR$, not $\Delta ABC \sim \Delta PQR$,

63. Answer: d

Explanation:

$\sec \theta = \text{hypotenuse}/\text{Base} = 13/5$

Using Pythagoras theorem

$(\text{Hypotenuse})^2 = (\text{Base})^2 + (\text{Perpendicular})^2$

$13^2 = (\text{Perpendicular})^2 + 5^2$

$\text{Perpendicular} = \sqrt{169 - 25} = 12$

$\tan \theta = \sin \theta + \cos \theta$

$12/5 = 12/13 + 5/13$ $[\sin \theta = P/H, \cos \theta = B/H \text{ and } \tan \theta = P/H]$

⇒ $(156 - 60 + 25)/65$

⇒ $121/65$

64. Answer: a

Explanation:

$$\Rightarrow \sin 5\theta = \cos(50^\circ - 3\theta),$$

$$\Rightarrow \sin 5\theta = \sin[90^\circ - (50^\circ - 3\theta)] \quad [\cos(90^\circ - \theta) = \sin \theta]$$

$$\Rightarrow 5\theta = 90^\circ - 50^\circ + 3\theta$$

$$\Rightarrow 2\theta = 40^\circ$$

$$\Rightarrow \theta = 20^\circ$$

65. Answer: c

Explanation:

Given, AB = 6 cm, PB = 5 cm, PD = 5 cm

Let the length of CD be x, PA = (5 + 6) = 11 and PC = (5 + x)

As we know,

$$PB \times PA = PD \times PC$$

$$\Rightarrow 5 \times 11 = 5 \times (5 + x)$$

$$\Rightarrow (5 + x) = 11$$

$$\Rightarrow x = 11 - 5 = 6 \text{ cm}$$

66. Answer: b

Explanation:

SP of each article = Rs. 2508

CP of first article = $2508 \times [100/114] = 2,200$

CP of second article = $2508 \times [100/88] = 2,850$

Total SP of both article = $2508 \times 2 = 5,016$

Total CP of both article = $2,200 + 2,850 = 5,050$

Total loss = $5,050 - 5,016 = 34$

Loss percentage = $[34/5,050] \times 100 = 0.673\% = 0.7\%$ (approx)

67. Answer: c

Explanation:

As we know,

$$\Rightarrow (x + 1/x)^2 = x^2 + 1/x^2 + 2$$

Given, $\sqrt{x} + 1/\sqrt{x} = \sqrt{7}$

$$\Rightarrow (\sqrt{x} + 1/\sqrt{x})^2 = (\sqrt{x})^2 + (1/\sqrt{x})^2 + 2$$

$$\Rightarrow \sqrt{7}^2 = x + 1/x + 2$$

$$\Rightarrow x + 1/x = 7 - 2 = 5$$

As we know,

$$\Rightarrow (x + 1/x)^3 = x^3 + 1/x^3 + 3(x + 1/x)$$

$$\Rightarrow 5^3 = x^3 + 1/x^3 + 3 \times 5$$

$$\Rightarrow x^3 + 1/x^3 = 125 - 15 = 110$$

68. Answer: a

Explanation:

Follow BODMAS rule to solve this question, as per the order given below:

Step-1: Parts of an equation enclosed in 'Brackets' must be solved first, and in the bracket,

Step-2: Any mathematical 'Of' or 'Exponent' must be solved next,

Step-3: Next, the parts of the equation that contain 'Division' and 'Multiplication' are calculated,

Step-4: Last but not least, the parts of the equation that contain 'Addition' and 'Subtraction' should be calculated.

$$\Rightarrow 5.8 + (7.4 \div 3.7 \times 5) - 6 \times 2 \div 2.5$$

$$\Rightarrow 5.8 + (2 \times 5) - 6 \times 0.8$$

$$\Rightarrow 5.8 + 10 - 4.8$$

$$\Rightarrow 11$$

69. Answer: b

Explanation:

$$\Rightarrow (a + b)^3 = a^3 + b^3 + 3ab(a + b)$$

$$\text{Given, } a + b = 8 \text{ and } ab = 32/3$$

$$\Rightarrow 8^3 = (a^3 + b^3) + 3 \times 32/3 \times 8$$

$$\Rightarrow (a^3 + b^3) = 512 - 256 = 256$$

70. Answer: b

Explanation:

MP of the article Rs. x

According to the question

$$\Rightarrow x \times [75/100] \times [85/100] = 535.50$$

$$\Rightarrow x = 840$$

MP of the article = Rs. 840

71. Answer: c

Explanation:

Given:

$$a + b + c = 4 \text{ and } ab + bc + ca = 2$$

Formula used:

$$a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$$

$$(a + b + c)^2 = a^2 + b^2 + c^2 + 2ab + 2bc + 2ca$$

Calculation:

$$\Rightarrow a^3 + b^3 + c^3 - 3abc = (a + b + c)[(a + b + c)^2 - 3(ab + bc + ca)]$$

$$\Rightarrow 4[4^2 - 3 \times 2]$$

$$\Rightarrow 4(16 - 6)$$

$$\Rightarrow 4 \times 10$$

$$\Rightarrow 40$$

★ Additional Information

$$a^3 + b^3 + c^3 - 3abc = (a + b + c)(a^2 + b^2 + c^2 - ab - bc - ca)$$

$$a^2 + b^2 + c^2 = (a + b + c)^2 - 2(ab + bc + ca)$$

$$\Rightarrow (a + b + c)\{(a + b + c)^2 - 2(ab + bc + ca) - (ab + bc + ca)\}$$

$$\Rightarrow a^3 + b^3 + c^3 - 3abc = (a + b + c)[(a + b + c)^2 - 3(ab + bc + ca)]$$

72. Answer: b

Explanation:

Total number of students in the arts stream = $580 + 460 + 320 + 470 + 370 = 2200$

Required average = $2200/5 = 440$

73. Answer: d

Explanation:

As we know,

Divisibility law of 11: If the difference of the alternating sum of digits of the number is a multiple of 11 (e.g. 2343 is divisible by 11 because $2 - 3 + 4 - 3 = 0$, which is a multiple of 11).

$\Rightarrow 46393x8$ divisible by 11 if $x = 3$

Or

$\Rightarrow 4 - 6 + 3 - 9 + 3 - x + 8 = 0$

$\Rightarrow x = 18 - 15 = 3$

74. Answer: b

Explanation:

$$\text{Number of girls in class} = 50 \times 46/100 = 23$$

$$\text{Number of boys in class} = 50 - 23 = 27$$

$$\text{Average marks of girls} = 62$$

$$\text{Sum of marks of girls} = 62 \times 23 = 1426$$

$$\text{Average marks of boys} = 58$$

$$\text{Sum of marks of boys} = 58 \times 27 = 1566$$

$$\text{Total sum of marks of all class} = 1426 + 1566 = 2992$$

$$\text{Average marks of whole class} = 2992/50 = 59.84$$

75. Answer: c

Explanation:

$$\Rightarrow a : b = 5 : 8 \quad \text{-----(1)}$$

$$\Rightarrow c : b = 4 : 3 \quad \text{-----(2)}$$

Multiply by 3 in equation (1) and multiply by 8 in equation (2)

$$\Rightarrow a : b : c = 15 : 24 : 32$$

76. Answer: d

Explanation:

Option 4 is the correct solution.

also is not required in the above sentence as only one thing is mentioned.

77. Answer: b

Explanation:

Option 2 is the correct solution.

manipulate is the correctly spelt word while the rest all are wrongly spelt.

'manipulate' means to handle or control (a tool, mechanism, information, etc.) in a skilful manner.

78. Answer: c

Explanation:

Here the correct answer is **Thrifty**.

★ Key Points

:-

- Let's look at the **meaning** of the given word:-
 - **Extravagant** (*adjective*) - lacking restraint in spending money or using resources.
 - For Example - It was rather **extravagant** to buy both.
- Let's look at the meaning of the correct answer:-
 - **Thrifty** (*adjective*) - using money and other resources carefully and not wastefully.
 - For Example - He had been brought up to be **thrifty** and careful.

Thus, the correct antonym for the given word is *Thrifty*.

★ Mistake Points

- You may think that '**pauper**' is an **antonym** of **extravagant** but the correct antonym of extravagant is **Thrifty** because it is not obvious that a poor man may be spending less money.
- **Pauper** means a poor man. It is a **noun**.

79. Answer: c

Explanation:

Option 3 is the correct solution.

The sentence is a positive sentence so **option 2 and 1** are wrong. **Option 4** does not form an appropriate formation. So, **option 3** is the correct solution.

80. Answer: a

Explanation:

The correct answer is **CBAD**

★ **Key Points**

- The given sentence is an example of a Sentence Jumble.
- The first statement of a sentence jumbled question is usually an independent general statement, a noun, a universal fact, the starting of an incident, or it starts with 'most' or 'once'.
- Part C will be the first sentence because it an independent general statement. It establishes the theme for the passage.
- **Part B** will be the next in sequence. It has the pronoun 'it', referring back to 'friendship'.
- **Part A** will be the next in sequence. It mentions the first principle the friendship is governed.
- **Part D** is the conclusive statement, so should be kept at the last.

The sequence in which sentences are arranged is: *Friendship is one of the most coveted relationships on earth. Like all relationships, it is also governed by some well-defined principles. The first of these states that the only way to have a friend is to be one. Thus, one must be reliable as a friend to expect reliability in others.*

81. Answer: c

Explanation:

Option 3 is the correct solution.

at is used to show location or place.

82. Answer: b

Explanation:

Option 2 is the correct solution.

It was a gas so it will be **leaked**.

83. Answer: b

Explanation:

Option 2 is the correct solution.

speaks volume means to provide a lot of information about something. So, the sentence would be **His success at such a young age gives enough proof for his talent.**

84. Answer: b

Explanation:

Option 2 is the correct solution.

The order of the passive form is object+verb+subject. So, the passive form of the given sentence would be **It is time for dinner to be served.**

85. Answer: a

Explanation:

Option 1 is the correct solution.

Concise means brief but comprehensive. So, the synonym for **Concise** is **brief**.

86. Answer: b

Explanation:

Option 2 is the correct solution.

succumb means to fail to resist pressure. So, the sentence would be The accident victim **succumbed** to his injuries before he could be taken to the hospital.

87. Answer: b

Explanation:

Option 2 is the correct solution.

The correct order is BADC. **B** is an independent sentence so it should be first. **A** is the continuation of **B** because it's still speaking about mother tongue. **C** is the continuation of **D**.

88. Answer: c

Explanation:

Option 3 is the correct solution.

The order of the active form is subject+verb+object. Here, the verb used is **believed** which is the past participle of the verb **believes**. So, the active form of the sentence would be **People still believe in superstitions**

89. Answer: b

Explanation:

Option 2 is the correct solution.

He is more smarter is grammatically wrong because **smarter** is already in a comparative degree, and adding **more** would make it a double comparative

90. Answer: c

Explanation:

Option 3 is the correct solution.

insatiable means impossible to satisfy.

91. Answer: b

Explanation:

Option 2 is the correct solution.

It should be was waiting for the because here **was** refers to the subject **child** which is singular.

92. Answer: d

Explanation:

Option 4 is the correct solution.

Superlative degree must be used in a negative sense because **disaster** is used. So, **worst** is the solution.

93. Answer: c

Explanation:

Option 3 is the correct solution.



Explanation:

- Put the cart before the horse means to reverse the proper order or procedure of something

Example: *Aren't you putting the cart before the horse by deciding what to wear for the wedding before you've even been invited to it?*

94. Answer: d

Explanation:

Option 4 is the correct solution.

Here, **Retrospection** means the action of looking back on or reviewing past events or situations.

95. Answer: c

Explanation:

Option 3 is the correct solution.

vigilant means keeping a careful watch for possible danger or difficulties. So, the most appropriate antonym for **vigilant** would be **careless**.

96. Answer: b

Explanation:

Option 2 is the correct solution.

deadly is the proper adjective used for clouds.

97. Answer: d

Explanation:

Option 4 is the correct solution.

exalt means think or speak very highly of (someone or something). So, the synonym of **exalt** will be **praise**

98. Answer: c

Explanation:

Option 3 is the correct answer.

★ Key Points

- Here, **tamper** means to **interfere with something**. In the sentence given, it says about not to do something. So, **tamper** is the appropriate answer.

★ Additional Information

- **Reckon:** consider or regard in a specified way
 - **Trifle:** treat without seriousness or respect
 - **Temper:** a person's state of mind seen in terms of their being angry or calm
-

99. Answer: b

Explanation:

Option 2 is the correct solution.

argument is the correctly spelt word.

100. Answer: d

Explanation:

Option 4 is the correct solution.

deferred means to delay or postpone. So, deferred is the most appropriate word to be used, as people died from its poison for a long time afterwards.

prepp

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