



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



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IES



UPSC CAPF



SSC Stenogr..



RRB NTPC



SSC GD



RBI GRADE B



RBI Assistant



DSSSB

SSC CHSL Previous Paper 42 (Held On: 22 March 2018 Shift 2)

Total Time: 1 Hour

Total Marks: 200

Instructions

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

English Language

1. In the following question, four words are given out of which one word is correctly spelt. Select the correctly spelt word. (+2, -0.5)

- a. intellijent
- b. intelligent
- c. inteligent
- d. intelijent

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

So apart from having

A- colleagues would go out for tea at periodic intervals

B- the routine coffee served

C- from the cafeteria my

- a. BAC
- b. BCA
- c. ACB
- d. ABC

3. In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select 'no improvement'. (+2, -0.5)

My father (were standing) in the balcony, his face clenched in a storm of emotions.

- a. was standing
- b. was stand
- c. was stood
- d. no improvement

-
4. In the following question, out of the four alternatives, select the alternative which will improve the bracketed part of the sentence. In case no improvement is needed, select 'no improvement'. (+2, -0.5)

Many countries and States (is debating) a ban on plastic bags or taxing their use.

- a. are debating
- b. are debated
- c. is debated
- d. no improvement

-
5. In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence. (+2, -0.5)

Carry out a task clumsily or incompetently

- a. Bungle
- b. Adept
- c. Apt

d. Adroit

6. In the following question, out of the four alternatives, select the alternative which is the best substitute of the words/sentence. (+2, -0.5)

A person who moves stealthily about or loiters near a place with a view to committing a crime

- a. Scrupulous
 - b. Prowler
 - c. Veracious
 - d. Unfeigned
-

7. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. (+2, -0.5)

A lot on your plate

- a. A greedy person will collect more food than he can eat.
 - b. A hungry person will devour if presented with food.
 - c. To have a large number of problems to deal with.
 - d. To be an expert in multi-tasking.
-

8. In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. (+2, -0.5)

Heave a sigh of relief

- a. To suddenly feel very happy because something unpleasant has not happened or has ended.
- b. Be exhausted after a gruelling physical task.
- c. Get trapped in a tricky situation which you could have escaped easily.
- d. Feel sad that the good times have ended.

9. 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. (+2, -0.5)

In a dynamic society everything is provided for by law and only a few things are _____ to politicians. The universe is governed _____ law. The inverse square law _____ the earth in its orbit and the law of atomic fusion keeps the sun shining _____ the whole earth. Likewise, the law should govern a nation where the judge, the police and the civil servant dispense _____ to the citizen.

servant dispense _____ to the citizen.

- a. justify
- b. justly
- c. justice
- d. justifies

10. 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. (+2, -0.5)

In a dynamic society everything is provided for by law and only a few things are _____ to politicians. The universe is governed _____ law. The inverse square law _____ the earth in its orbit and the law of atomic fusion keeps the sun shining _____ the whole earth. Likewise, the law should govern a nation where the judge, the police and the civil servant dispense _____ to the citizen.

the sun shining _____ the whole earth.

- a. for
- b. of
- c. from
- d. form

-
11. 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. (+2, -0.5)

In a dynamic society everything is provided for by law and only a few things are _____ to politicians. The universe is governed _____ law. The inverse square law _____ the earth in its orbit and the law of atomic fusion keeps the sun shining _____ the whole earth. Likewise, the law should govern a nation where the judge, the police and the civil servant dispense _____ to the citizen.

square law _____ the earth in its

- a. keep
- b. keeping
- c. keeps
- d. kept

12. 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. (+2, -0.5)

In a dynamic society everything is provided for by law and only a few things are _____ to politicians. The universe is governed _____ law. The inverse square law _____ the earth in its orbit and the law of atomic fusion keeps the sun shining _____ the whole earth. Likewise, the law should govern a nation where the judge, the police and the civil servant dispense _____ to the citizen.

The universe is governed _____ law.

- a. at
- b. to
- c. by
- d. so

13. 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. (+2, -0.5)

In a dynamic society everything is provided for by law and only a few things are _____ to politicians. The universe is governed _____ law. The inverse square law _____ the earth in its orbit and the law of atomic fusion keeps the sun shining _____ the whole earth. Likewise, the law should govern a nation where the judge, the police and the civil servant dispense _____ to the citizen.

a few things are _____ to politicians.

- a. right

b. leave

c. with

d. left

14. 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. (+2, -0.5)

a. Promunciation

b. Prononciation

c. Pronunciation

d. Pronuncieation

15. A sentence has been given in Direct/Indirect Speech. Out of the four given alternatives, select the one which best expresses the same sentence in Indirect/Direct Speech. (+2, -0.5)

He replied, "I cannot do so."

a. He said he could not do so.

b. He replied that he could not do so.

c. He replied that he cannot did so.

d. He replied that he could never do so.

16. A sentence has been given in Active/Passive Voice. Out of the four given alternatives, select the one which best expresses the same sentence in Passive/Active Voice. (+2, -0.5)

They selected the red car.

- a. The red car is select.
 - b. The red car is chosen by them.
 - c. The red car by them is selected.
 - d. The red car was selected by them.
-

17. Rearrange the parts of the sentence in correct order.

(+2, -0.5)

Most of

P: had urban backgrounds

Q: Ministers of Japan

R: the erstwhile Prime

- a. QPR
- b. RQP
- c. PQR
- d. RPQ

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

(+2, -0.5)

Analogous

- a. Similar
- b. Parallel
- c. Related

d. Disagreeing

19. In the following question, out of the given four alternatives, select the one which is opposite in meaning of the given word. (+2, -0.5)

Delectation

- a. Sorrow
 - b. Delight
 - c. Elation
 - d. Rapture
-

20. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word. (+2, -0.5)

Levity

- a. Gravity
 - b. Funniness
 - c. Beloved
 - d. Baleful
-

21. In the following question, out of the given four alternatives, select the one which best expresses the meaning of the given word. (+2, -0.5)

Consternation

- a. Dismay

- b. Happiness
 - c. Composure
 - d. Assurance
-

22. 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. (+2, -0.5)

God has created all human beings and _____ them with certain qualities.

- a. disapproved
 - b. rejected
 - c. vested
 - d. uncovered
-

23. 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. (+2, -0.5)

He has not submitted his assignment _____.

- a. now
 - b. yet
 - c. then
 - d. until then
-

24. 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'. (+2, -0.5)

From the perspective of positive psychology, mental (1)/ health may include an individual's ability to create a balance (2)/ between life activities and efforts to achieve psychology resilience. (3)/ No error (4)

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

-
25. 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'. (+2, -0.5)

The few crowd (1)/ was not surprising (2)/ considering the publicity involved. (3)/ No error (4)

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

General Intelligence

26. In the following question, select the related word pair from the given alternatives. (+2, -0.5)

Circumference : Circle :: ? : ?

- a. Perimeter : Volume
- b. Square : Area
- c. Sphere : Circle
- d. Perimeter : Rectangle

-
27. In the following question, select the related number from the given alternatives. (+2, -0.5)

13 : 23 :: 37 : ?

- a. 40
- b. 46
- c. 47
- d. 43

-
28. In the following question, select the related letter/letters from the given alternatives. (+2, -0.5)

ACE : KMO :: BDF : ?

- a. LNO

- b.** MPO
 - c.** LNP
 - d.** NPQ
-

29. In the following question, select the odd word pair from the given alternatives. (+2, -0.5)

- a.** Vehicle - Car
 - b.** Scooter - Vehicle
 - c.** Truck - Vehicle
 - d.** Bus - Vehicle
-

30. In the following question, four number pairs are given. The number on left side of (-) is related to the number on the right side of (-) with some Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives. (+2, -0.5)

- a.** 7 - 49
 - b.** 9 - 81
 - c.** 11 - 121
 - d.** 15 - 215
-

31. In the following question, select the odd letter/letters from the given alternatives. (+2, -0.5)

- a.** ABDG

- b. PQSV
 - c. JKMQ
 - d. NOQT
-

32. Arrange the given words in the sequence in which they occur in the dictionary. (+2, -0.5)

1. Peanut 2. Peaceful 3. Personal 4. Photograph 5. Picture

- a. 43125
 - b. 21345
 - c. 13245
 - d. 32451
-

33. In the given series, one number is missing. Select the correct alternative from the given options that will complete the series. (+2, -0.5)

9, 11, 14, 16, 19, 21, ?

- a. 24
 - b. 26
 - c. 25
 - d. 27
-

34. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series. (+2, -0.5)

AL, EP, IT, MX, ?

- a. RC
 - b. QB
 - c. QV
 - d. TV
-

35. Six books are kept one above the other. Hindi is just above Sanskrit. The English is between Mathematics and Science. Law is between Hindi and Mathematics. Which book is at the fourth position from the top? (+2, -0.5)

- a. Mathematics
 - b. Law
 - c. Hindi
 - d. English
-

36. From the given alternatives, select the word which **CANNOT** be formed using the letters of the given word. (+2, -0.5)

Abettor

- a. Bettor
 - b. Wrote
 - c. Rot
 - d. Abet
-

37. In a certain code language, " TRAVEL " is written as " WVFIQ ". How is " **TABLET** " written in that code language? (+2, -0.5)

- a. EWOGYN
- b. NYOGYW
- c. YGWPQM
- d. WEGOYIY

38. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series. (+2, -0.5)

RIP, TLT, VOX, XRB, ?

- a. ZTE
- b. AUF
- c. ZUF
- d. ATE

39. In the following question, select the missing number from the given series. (+2, -0.5)

24, 26, 28, ?, 32, 34

- a. 29
- b. 30
- c. 31
- d. 36

40. In the following question, four groups of three numbers are given. In each group the second and third number are related to the first number by a Logic/Rule/Relation. Three are similar on basis of same Logic/Rule/Relation. Select the odd one out from the given alternatives. (+2, -0.5)

- a. (4, 8, 16)
- b. (9, 18, 36)
- c. (6, 12, 24)
- d. (5, 10, 25)

41. In a certain code language, '-' represents '+', '+' represents 'x', 'x' represents '÷' and '÷' represents '-'. Find out the answer to the following question. (+2, -0.5)

$$13 - 14 + 15 \times 70 \div 14 = ?$$

- a. 4
- b. 2
- c. 47
- d. 6

42. The following equation is incorrect. Which two signs should be interchanged to correct the equation? (+2, -0.5)

$$8 \div 2 - 50 \times 6 + 16 = 50$$

- a. + and ÷
- b. and +

c. + and $\times$

d. $\div$ and $\times$

43. If $60 \# 40 = 10$, $40 \# 20 = 6$ and $60 \# 90 = 15$, then find the value of $40 \# 30$ (+2, -0.5)
= ?

a. 15

b. 12

c. 18

d. 7

44. Which of the following terms follows the trend of the given list? (+2, -0.5)

ZYXYXYXY, XWXYXYXY, XYZYXYXY, XYXWXYXY, XYXYZYXY, -----

a. XYXYXWXY

b. XYXYXYXY

c. ZYXYXYXY

d. XWXYXYXY

45. Two aeroplanes start from the same strip. Aeroplane P flies 65 miles North, (+2, -0.5)
then turns left, and flies 45 miles and then lands. In the meanwhile
aeroplane Q flies 80 miles West, then flies 40 miles South, then turns to its
left, flies 35 miles and lands. Where is aeroplane Q with respect to
aeroplane P?

a. 25 miles South

- b. 105 miles North
- c. 25 miles North
- d. 105 miles South

-
46. In the question, two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if it seems to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements. (+2, -0.5)

Statement I: All bins are baskets

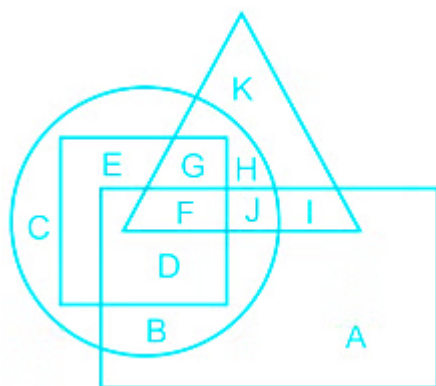
Statement II: No buckets are bins

Conclusion I: All baskets are buckets

Conclusion II: All buckets are baskets

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

-
47. In the following figure, the rectangle represents Editors, the circle represents Choreographers, the triangle represents Jugglers and square represents Football players. Which set of letters represents Editors who are neither Jugglers nor Football players? (+2, -0.5)



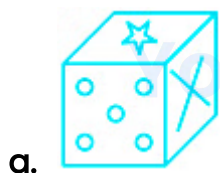
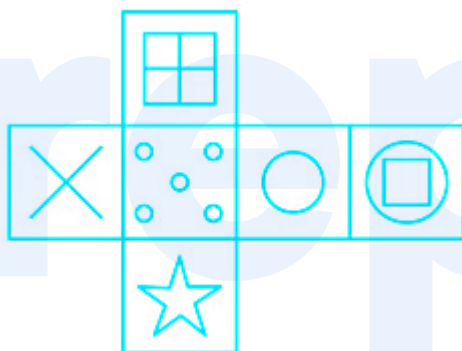
- a. DF
- b. FJI
- c. DB
- d. AB

48. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure? (+2, -0.5)





49. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure? (+2, -0.5)





d.

50. A word is represented by only one set of numbers as given in any one of the alternatives. The set 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, 'M' can be represented by, 31, 43 etc and 'W' can be represented by 78, 97 etc. Similarly, you have to identify the set for the word 'BODY'. (+2, -0.5)

Matrix - I					
	0	1	2	3	4
0	J	K	H	M	A
1	E	H	E	F	A
2	G	L	H	K	K
3	D	M	B	A	L
4	H	G	K	M	E

Matrix - II					
	5	6	7	8	9
5	Z	T	X	S	R
6	O	O	U	Z	Q
7	T	Z	S	W	O
8	O	O	Y	S	P
9	Q	S	W	V	Q

- a. 41, 77, 14, 89
- b. 11, 67, 34, 67
- c. 13, 75, 42, 67
- d. 32, 65, 30, 87

Your Personal Exams Guide

Quantitative Aptitude

51. If $\frac{196}{0.196} = \frac{19.6}{x}$ then what will be the value of x ? (+2, -0.5)

- a. 1.96
- b. 10.96
- c. 0.0196
- d. 0.196

52. $\frac{1}{33}$ of $\frac{1}{66}$ of $\frac{1}{3}$ of $\frac{1}{66}$ of 10000 of a number will be what percentage of that number? (+2, -0.5)

- a. 2.32
- b. 1.32
- c. 0.232
- d. 0.0232

53. What is the value of $(6x^2 - 5y^2)(6x^2 + 5y^2)$, if $x = \frac{1}{\sqrt{3}}$ and $y = \frac{1}{\sqrt{5}}$? (+2, -0.5)

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

54. If $a \otimes b = (a + b)(a \times b)$, then find the value of $6 \otimes 5$. (+2, -0.5)

- a. 110
- b. 220
- c. 330
- d. 440

55. Angles of the triangle are in the ratio of 1 : 2 : 3. Choose the correct triangle for the given ratio. (+2, -0.5)

- a. Equilateral
- b. Isosceles
- c. Right angle
- d. Obtuse angled

56. If the diameter of the two circles is 6 units and 10 units and a centre distance of 8 units. Calculate the number of common tangents that can be drawn to both the circle. (+2, -0.5)

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

57. A mixture of 240 litres of juice and contains 15% water. How much more water (in litres) should be added to this so that the strength of water will become 25% in the new mixture? (+2, -0.5)

- a. 28
 - b. 32
 - c. 26
 - d. 34
-

58. The sum of the present ages of a father and his son is 126 years. 8 years ago their respective ages were in the ratio of 7 : 4. After 7 years what will be the ratio of ages of father and son? (+2, -0.5)

- a. 23 : 19
 - b. 17 : 11
 - c. 27 : 20
 - d. 34 : 23
-

59. The ratio of spirit and water in the two vessels is 5 : 1 and 3 : 7 respectively. In what ratio the liquid of both the vessels should be mixed such that a new mixture containing half spirit and half water is obtained? (+2, -0.5)

- a. 3 : 5
 - b. 5 : 7
 - c. 1 : 1
 - d. 4 : 7
-

60. 10 Consecutive numbers are given. If the average of the two numbers given in the middle is 13.5, then what is the sum of the first 6 numbers? (+2, -0.5)

- a. 65
- b. 59
- c. 69
- d. 80

61. A sum of Rs 4000 becomes Rs 7000 in 6 years at simple interest. If the rate of interest becomes double of itself, then what will be the amount (in Rs) after 6 years? (+2, -0.5)

- a. 8500
- b. 9000
- c. 8000
- d. 10000

62. If the selling price of 39 articles is equal to the cost price of 42 articles, then what will be the profit percentage? (+2, -0.5)

- a. 8.33
- b. 7.69
- c. 9.09
- d. 11.33

63. The marked price of a trouser is twice of the cost price. To earn 36% profit, what should be the value of discount (in percentage)? (+2, -0.5)

- a. 33
- b. 32
- c. 34
- d. 36

64. What is the simplified value of $\frac{\sqrt{5} + \sqrt{4}}{\sqrt{5} - \sqrt{4}} + \frac{\sqrt{5} - \sqrt{4}}{\sqrt{5} + \sqrt{4}}$? (+2, -0.5)

- a. 9
- b. 10
- c. 18
- d. 20

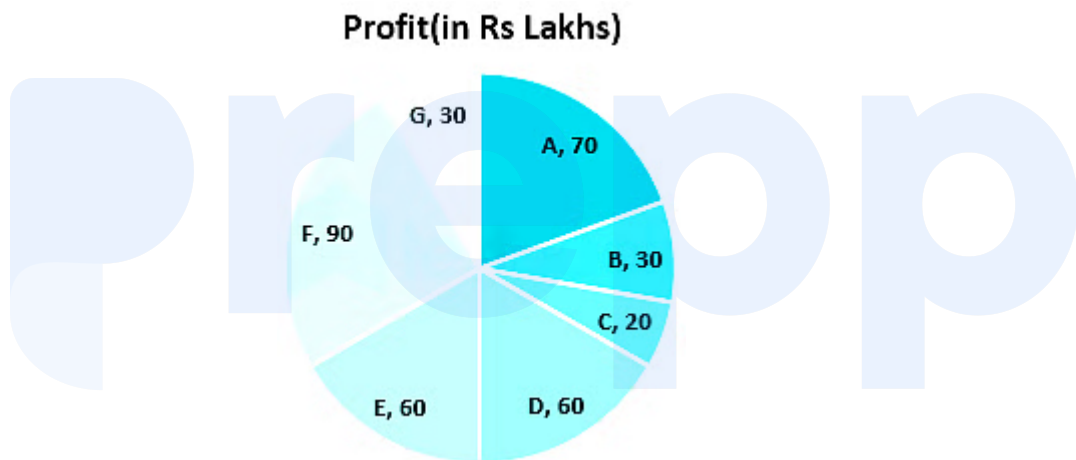
65. P can make a table in 16 days while Q can make it in 20 days. Q started the work and did that work for 5 days. In how many days P can complete the remaining work? (+2, -0.5)

- a. 10
- b. 12
- c. 15
- d. 18

66. A boat covers a distance of 14 km upstream and 16 km downstream in 9 hours. It covers a distance of 12 km upstream and 40 km downstream in 11 hours. What is the speed (in km/hr) of the boat in still water? (+2, -0.5)

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

67. **Direction:** The pie chart shows the share in profits of the year 2017 of seven partners in a business. Study the diagram and answer the following questions. (+2, -0.5)

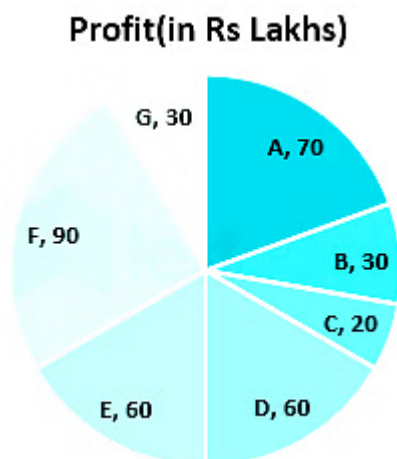


Which partner got the second highest share in profits?

- a. C
- b. A
- c. E
- d. F

68. **Direction:** The pie chart shows the share in profits of the year 2017 of seven partners in a business. Study the diagram and answer the following (+2, -0.5)

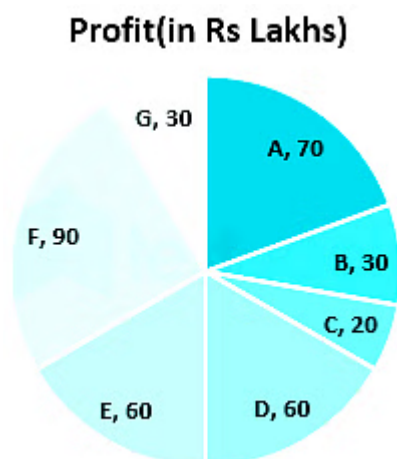
questions.



What is the total Profit (in Rs. lakhs) of the business of the year 2017?

- a. 400
- b. 300
- c. 360
- d. 350

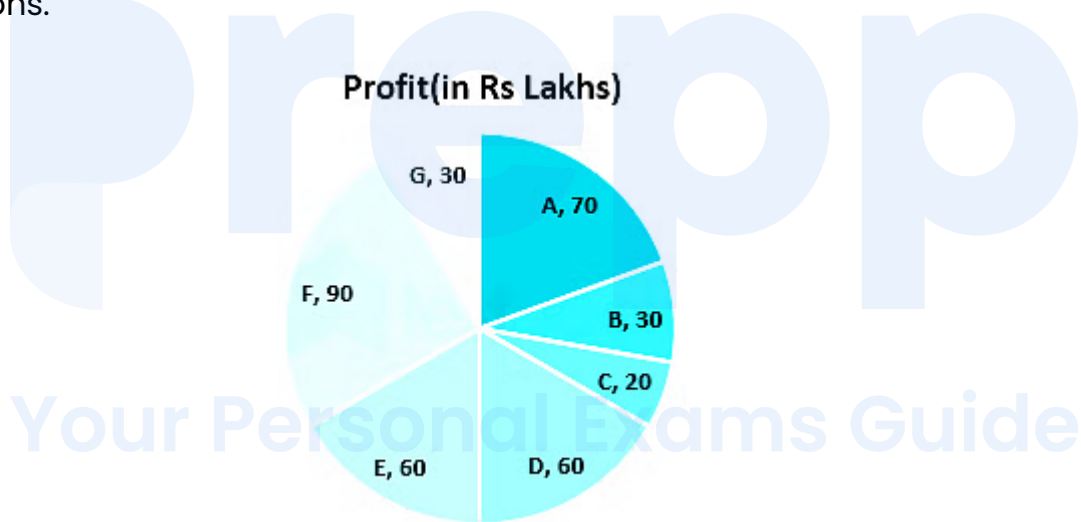
69. **Direction:** The pie chart shows the share in profits of the year 2017 of seven partners in a business. Study the diagram and answer the following questions. (+2, -0.5)



The measure of the central angle of the sector representing share in profits of partner E is _____ degrees.

- a. 30
- b. 60
- c. 45
- d. 90

70. **Direction:** The pie chart shows the share in profits of the year 2017 of seven partners in a business. Study the diagram and answer the following questions. (+2, -0.5)



If the business makes Rs. 45 lakh profit which is distributed between the partners how much does C get (in Rs lakhs)?

- a. 3
- b. 2.5
- c. 4
- d. 2

71. The length and breadth of a rectangle are 15 cm and 8 cm respectively. Calculate its perimeter (in cm). (+2, -0.5)

- a. 46
- b. 92
- c. 35
- d. 70

72. If the area of a semi-circle is 693 cm^2 , then find its radius (in cm). (+2, -0.5)

- a. 42
- b. 27
- c. 21
- d. 54

73. Find the curved surface area (in cm^2) of a right circular cone of diameter 28 cm and slant height 12 cm. (+2, -0.5)

- a. 792
- b. 728
- c. 528
- d. 493

74. ΔPQR is right angled at Q. If $m\angle R = 30^\circ$, then find the value of $(\cos P - 1/3)$. (+2, -0.5)

- a. $1/6$
- b. $(2\sqrt{2}-1) / \sqrt{2}$
- c. $-1/\sqrt{3}$
- d. $(\sqrt{3}-4) / 2\sqrt{3}$

75. In $\triangle ABC$ measure of angle B is 90° . If $\cot A = 8/15$, and $AB = 0.8$ cm, then what is the length (in cm) of side BC? (+2, -0.5)

- a. 1.7
- b. 2
- c. 1.5
- d. 2.5

prepp

Your Personal Exams Guide

General Awareness

76. Which of the following is necessary for a natural monopoly? (+2, -0.5)

- a. Economies of scale
- b. A high proportion of the total cost as the cost of capital goods
- c. Very small market
- d. All options are correct.

77. In which of the following areas is the public sector most dominant in India? (+2, -0.5)

- a. Organised term lending financial institutions
- b. Transport
- c. Commercial Banking
- d. Steel production

78. The deepest lake of the world is _____. (+2, -0.5)

- a. Aral Sea
- b. Caspian Sea
- c. Baikal
- d. Dead Sea

79. Which of the following is correctly matched? (+2, -0.5)

- a. Lonar – Madhya Pradesh
 - b. Nikki – Gujarat
 - c. Kolleru – Andhra Pradesh
 - d. Pulicat – Kerala
-

80. Where is the tomb of Sher Shah located? (+2, -0.5)

- a. Sasaram
 - b. Delhi
 - c. Kalinger
 - d. Sonargaon
-

81. Which of the following governor generals used to call himself as Bengal Tiger? (+2, -0.5)

- a. Lord Clive
 - b. Warren Hastings
 - c. Lord Cornwallis
 - d. Lord Wellesley
-

82. Syadvada was the fundamental basis of which religion? (+2, -0.5)

- a. Buddhism
- b. Jainism

- c. Vaishnavism
 - d. Shaivism
-

83. According to the latest report by UN Women and the UN Development Programme (UNDP), released in November 2017, which region has been ranked as the world's most violent region for women? **(+2, -0.5)**

- a. Latin America and the Caribbean countries
 - b. Sudan
 - c. Gulf Countries
 - d. South East Asian Countries
-

84. Who won the title of Miss World 2017? **(+2, -0.5)**

- a. Stephanie Hill
 - b. Andrea Meza
 - c. Manushi Chhillar
 - d. Stephanie Del Valle
-

85. What is the national animal of Bangladesh? **(+2, -0.5)**

- a. Royal Bengal Tiger
- b. Python
- c. Goat

d. Buffalo

86. In the modern periodic table while going from top to bottom in a group ----- (+2, -0.5)

- a. the size of an atom increases
 - b. the size of an atom decreases
 - c. ionisation energy of an atom increases
 - d. size and ionisation energy of an atom increases
-

87. Which of the following is **NOT** a compound? (+2, -0.5)

- a. Ammonia
 - b. Milk
 - c. Sodium chloride
 - d. Chalk
-

88. According to Article 75 of Indian Constitution, the ministers are collectively responsible to the Parliament in general and to the _____ in particular. (+2, -0.5)

- a. People
 - b. Lok Sabha
 - c. Rajya Sabha
 - d. President
-

89. Which among the following comes under Concurrent List of Indian Constitution? (+2, -0.5)

I. Marriage and Divorce

II. Electricity

III. Labour Welfare

a. Only I

b. Only II

c. Both I and II

d. All I, II and III

90. Which are the special proteins in muscles that contract and relax to cause movement? (+2, -0.5)

a. Contractile protein

b. Receptor protein

c. Structural protein

d. Enzymatic protein

91. Plants having a body that is differentiated into roots, stems and leaves and have a specialized tissue for the conduction of water and other substances, fall in which group? (+2, -0.5)

a. Bryophyta

b. Thallophyta

- c. Pteridophyta
 - d. All options are correct.
-

92. In January 2018, 'Electoral Bonds' Scheme was launched. Under this scheme, the electoral bonds will be available at specified branches of -----.

(+2, -0.5)

- a. Bank of Baroda
 - b. State Bank of India
 - c. Punjab National Bank
 - d. Bank of India
-

93. By using which foam the Researchers from Indian Institute of Technology – Bombay have made a low-cost piezoresistive vibration sensor?

(+2, -0.5)

- a. Only Polyurethane
 - b. Only Polyethylene
 - c. Both Polyurethane and Polyethylene
 - d. Neither Poly urethane nor Polyethylene
-

94. SEBI is evaluating whether ICO (Initial Coin Offerings) can be brought under its purview. ICO is related to -----.

(+2, -0.5)

- a. Dollars
- b. Pounds

- c. Rupees
 - d. Cryptocurrency
-

95. What was India's rank in the Educational Attainment pillar as per the Global Gender Gap report 2017? (+2, -0.5)

- a. 139
 - b. 112
 - c. 141
 - d. 15
-

96. A body is initially moving with a velocity of 10 m/s. It undergoes an acceleration of 2 m/s^2 for 5 seconds. Find the displacement (in m) of this body in these 5 seconds. (+2, -0.5)

- a. 25
 - b. 37.5
 - c. 50
 - d. 75
-

97. 1 watt is equal to 1 _____. (+2, -0.5)

- a. J s^{-1}
- b. J s
- c. J s^{-2}

d. $J s^2$

98. Air _____ are the substances which contaminate the air. (+2, -0.5)

- a. Reactants
 - b. Irritants
 - c. Resistants
 - d. Pollutants
-

99. Which of the statements given below are correct? (+2, -0.5)

- A) Rafael Nadal won the Tennis 2017 French Open Men's Singles.
- B) In 2017, Valentino Rossi raced in MotoGP for Ducati.
- C) In 2017, Marc Márquez raced in MotoGP for Honda.

- a. Only A
 - b. Only B
 - c. Both A and C
 - d. A, B and C
-

100. In HTML, _____ is at the bottom of the page and usually contains disclaimers, copyright information etc. (+2, -0.5)

- a. Header area
- b. Menu bar

- c. Body of the page
- d. Footer area

Prepp

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Answers

1. Answer: b

Explanation:

The correct answer is **intelligent**.

★ Key Points

Let's look at the meaning of the correct word.

- **Intelligent** : Having or showing intelligence; especially of a higher degree.
- **Example** : *Labradors are highly **intelligent** dogs.*

Thus from the given points and example, it is clear that the correct answer is **intelligent**.

2. Answer: b

Explanation:

The correct answer is **BCA**

★ Key Points

Reading the above question we find that:

- Clearly, a sentence does not end with the possessive pronoun **my**.
- Therefore we can eliminate options **1** and **4**.
- In option 3 **CB** is the incorrect sequence. A possessive pronoun is used directly with a noun and not an article.

Therefore from the given options, the correct option is **BCA**.

3. Answer: a

Explanation:

The correct answer is **was standing** .

★ Key Points

Reading the given sentence we find that:

- **My father** is a **singular** noun.
- The **helping verb 'were'** is used only with **plural nouns** .
- Therefore we should replace **were standing** with **was standing** .
- The **helping verb 'was'** is used with **singular nouns**

★ Additional Information

- In the given sentence the father was performing a **continuous action** in the **past** .
- Hence the **-ing** form of the **verb** is used here, and the tense is **past continuous** tense.

4. Answer: a

Explanation:

The correct answer is **are debating** .

★ Key Points

Reading the above sentence we find that:

- **Many countries and states** denote many individual countries and states, making it **plural** .
- Therefore the **verb** in use should also be **plural** .
- Hence we have to change **is debating** to **are debating** .

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Therefore the correct answer is **are debating** .

5. Answer: a

Explanation:

The correct answer is **Bungle**

★ Key Points

Let's look at the meaning of the words given below.

- **Bungle** - carry out a task clumsily or incompetently; mismanage; mishandle.
- **Adept** - very skilled or proficient at something.
- **Apt** - appropriate or suitable in the circumstances.
- **Adroit** - clever or skillful.

Thus from the given meaning, it is clear that the correct answer is **Bungle** .

6. Answer: b

Explanation:

The correct answer is **Prowler** .

★ Key Points

Let's find out the meaning of following words :-

- **Scrupulous** - a person or process which is careful, thorough, and extremely attentive to details.
- **Prowler** - a person who moves stealthily about or loiters near a place with a view to committing a crime.
- **Veracious** - speaking or representing the truth.
- **Unfeigned** - genuine; sincere.

Thus from the given points it is clear that the correct answer is **Prowler**.

7. Answer: c

Explanation:

The correct answer is **To have a large number of problems to deal with**.

★ Key Points

Let's look at the meaning of the given idiom.

- **A lot on your plate** : To have a large number of problems to deal with and have barely enough time to deal with other things.
- **Example** : I can't take that on now; I've got too much on my plate already.

Thus from the given meaning, we can conclude that the correct answer is **To have a large number of problems to deal with**.

8. Answer: a

Explanation: Your Personal Exams Guide

The correct answer is: **To suddenly feel very happy because something unpleasant has not happened or has ended**.

★ Key Points

Let's look at the meaning of the given idiom:

- **Heave a sigh of relief** : to relax because something one has been worrying about is not a problem or danger anymore.
- **Example** : We both heaved a sigh of relief when she left.

Thus, from the given points we can conclude that the answer is '**To suddenly feel very happy because something unpleasant has not happened or has ended**'.

★ Additional Information

- Heave means to breathe; to gasp.

9. Answer: c

Explanation:

The correct answer is **justice** .

★ Key Points

Reading the above sentence we find that:

- The **verb 'dispense'** is already given which according to **sub + verb + obj** should be followed by an **object** i.e a noun or a pronoun.
- In the given options.
- **Justly** : Is an adverb and cannot be used in the place of a noun/pronoun.
- **Justify** and **Justifies** both are verbs and cannot be used in place of a **noun** .

Therefore the correct answer is **justice** .

★ Additional Information

- An **adverb** is a word that modifies a **verb** or an **adjective** .

10. Answer: a

Explanation:

Correct option – 1

Here, option 4 is clearly eliminated. Because 'form' is a noun which does not provide meaning to the context. Let's find out the uses of following prepositions :-

for – Used to indicate the use of something.

of – Used for belonging to, relating to, or connected with.

from – used to separate; one place to another.

Here, use of sun is defined. That sun keeps on shining the whole earth. Hence, **for** is the correct answer.

11. Answer: c

Explanation:

Correct option – 3

The context has subject "the inverse law" is a singular noun, hence according to sub-verb agreement, singular verb **keeps** should be used. Thus, option 3 is the correct answer.

12. Answer: c

Explanation:

The correct option is 3.

- 'By' is the most appropriate preposition for the sentence.
 - Other prepositions make the sentence grammatically incorrect and hence are not the right fit.
-

13. Answer: d

Explanation:

- Correct option – 4

- **to leave something to someone** means to give someone an authority or responsibility
- Hence, left is the most suitable choice.
- Thus, the correct sentence is: ' *a few things are left to politicians.* '

14. Answer: c

Explanation:

The correct answer is **Pronunciation** .

★ Key Points

Let's look at the meaning of the correct option.

- **Pronunciation** : The way in which a word is pronounced.
- **Example** : My friend's pronunciation is similar to that of a native speaker.

Thus the correct answer is **Pronunciation** .

15. Answer: b

Explanation:

Correct option – 2

Here, direct speech is given. So, we convert it into indirect speech. The reporting verb "replied" is in simple past tense and modal verb **can** is used in inverted commas. So, it changes into simple past of **can**, i.e. **could**. Subject I changes into **he**. Rest of the sentence remains the same. Hence, option 2 is the correct answer.

16. Answer: d

Explanation:

Correct option – 4

The tense used in active voice is simple past tense. So, while changing it into passive voice form, following pattern is used :-

Object + was/were + V3 + by + Subject.

Hence, option 4 is the correct answer.

17. Answer: b

Explanation:

The correct answer is **RQP**

★ Key Points

Reading the given segments we find that:

- The fixed part of the sentence ends with the preposition **of**.
- Therefore it should be followed by a noun or a pronoun.
- Thus we can eliminate options **3** and **4** as **P** starts with a verb.
- Adding the part **Q** to the fixed part does not yield a coherent and meaningful sentence.
- Thus option **1** can be eliminated.

Therefore the correct answer will be **RQP**.

The correct sentence is: *Most of the erstwhile Prime Ministers of Japan had urban backgrounds.*

18. Answer: d

Explanation:

The correct answer is Disagreeing .

★ Key Points

Let's look at the meaning of the given word and the correct option.

- Analogous : Comparable in certain respects; agreeing to something.
- Disagreeing : Having or expressing a different opinion.

Thus from the given meanings, it is clear that both the words express the opposite meaning.

★ Additional Information

Let's look at the meanings of the other given options.

- Similar : Having resemblance in appearance.
- Parallel : Occurring or co-existing at the same time.
- **Related** : Belonging to the same family, group or type.

19. Answer: a

Explanation:

The correct answer is **Sorrow**

★ Key Points

Let's look at the meaning of the given word and the correct option.

- **Delectation** : Pleasure and delight; elation.
- **Sorrow** : Deep distress; sadness or regret.

Thus from the given meanings, it is clear that both the words express the opposite meanings.

★ Additional Information

Let's look at the meanings of the other given words.

- **Delight** : To be happy and in a state of elation.
 - **Elation** : Great happiness and exhilaration.
 - **Rapture** : A feeling of intense pleasure or joy.
-

20. Answer: b

Explanation:

The correct answer is **Funniness** .

★ Key Points

Let's look at the meaning of the given word and the correct option.

- **Levity** : the treatment of a serious matter with humour or lack of due respect.
- **Funniness** : the quality of being laughable and comical.

Thus from the given meanings, we find that both the words express similar meanings.

Therefore the correct answer is **Funniness** .

★ Additional Information

Let's look at the meaning of the other given options.

- **Gravity** : the force that attracts a body towards the centre of the earth, or towards any other physical body having mass.
 - **Baleful** : having a harmful or destructive effect.
-

21. Answer: a

Explanation:

The correct answer is **Dismay** .

★ Key Points

Let's look at the meaning of the given word and the correct option.

- **Consternation** : a feeling of anxiety or dismay, typically at something unexpected.
- **Dismay** : Concern and distress caused by something unexpected.

Thus from the given meanings, we find that both words express the same meanings.

★ Additional Information

Let's look at the meaning of the other given options.

- **Composure** : The state of being calm and in control of oneself.
- **Assurance** : A positive declaration intended to give confidence.

22. Answer: c

Explanation:

The correct answer is **vested** .

★ Key Points

Reading the above sentence we find that:

It is talking about something God gave human beings.

Now let's look at the meaning of the correct option.

- **Vested** : to give someone the power, property etc.

- **Example** : *The judicial power is **vested** in a high court and many subordinate courts.*

Thus from the given points, we find that the correct answer is **vested** .

★ Additional Information

Let's look at the meaning of the other given options.

Rejected : Dismiss as inadequate or faulty.

23. **Answer: b**

Explanation:

Correct option – 2

There are certain adverbs which are specifically used in case of present perfect tense. Such as, just now, already, yet, etc. 'Yet' means till now.

Hence, option 2 is the correct answer.

24. **Answer: c**

Explanation:

Correct option – 3

Since, word "psychology" is a noun which is directly followed by another noun "resilience". So, replace it with adjective **psychological** to give a meaningful sentence. Hence, option 3 is the correct answer.

25. **Answer: a**

Explanation:

Correct option – 1

Quantifier "the few" is used for countable noun. For e.g.:- There were the few mangoes on the table.

But, "crowd" is a uncountable noun. Hence, replace **the few** with **the little**.

So, part 1 has the grammatical error.

26. Answer: d

Explanation:

'Circumference' forms the boundary of a 'circle', similarly, 'Perimeter' forms a 'Rectangle'.

Hence, the answer is 'Perimeter : Rectangle'.

27. Answer: c

Explanation:

The logic followed here is:

$$13 + 10 = 23$$

Similarly, $37 + 10 = 47$

Hence, the correct answer is '47'.

28. Answer: c

Explanation:

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

The logic followed here is:

$$A + 10 = K$$

$$C + 10 = M$$

$$E + 10 = O$$

Similarly,

$$B + 10 = L$$

$$D + 10 = N$$

$$F + 10 = P$$

Hence, answer is 'LNP'.

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29. Answer: a

Explanation:

Here the pattern of relation followed is (Example of Vehicle - Vehicle)

All except 'Vehicle - Car' follows the above pattern of relationships.

Hence, 'Vehicle - Car' is the odd one out.

30. Answer: d

Explanation:

Here the pattern of relation followed is (Number – Square of the number)

All except '15 – 215' follows the above pattern of relationships.

Square of 15 is 225.

Hence, '15 – 215' is the odd one out.

31. Answer: c

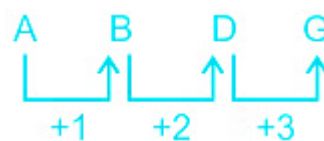
Explanation:

The table shows the place value of the alphabet from A to Z and Z to A.

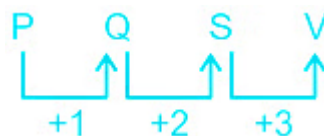
Alphabets	A	B	C	D	E	F	G	H	I	J	K	L	M
Positional value	1	2	3	4	5	6	7	8	9	10	11	12	13
Positional value	26	25	24	23	22	21	20	19	18	17	16	15	14
Alphabets	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

The pattern/logic/rule followed here is:

1) ABDG →



2) PQSV →



3) JKMQ →



4) NOQT →



Clearly, 'JKMQ' does not follow the same pattern/logic/rule as other three options.

Hence, the correct answer is "JKMQ".

32. Answer: b

Explanation:

2. Peaceful

1. Peanut

3. Personal

4. Photograph

5. Picture

Hence, '21345' is the answer.

33. Answer: a

Explanation:

The logic/rule followed here is:



Hence, the correct answer is "24".

34. Answer: b

Explanation:

The logic/rule followed here is:



Hence, the answer is 'QB'.

35. Answer: b

Explanation:

Six books are kept one above the other.

1) Hindi is just above Sanskrit.

HINDI
SANSKRIT

2) The English is between Mathematics and Science.

Case I	Case II
SCIENCE	MATHEMATICS
ENGLISH	ENGLISH
MATHEMATICS	SCIENCE

3) Law is between Hindi and Mathematics.

Case I	Case II
HINDI	MATHEMATICS
LAW	LAW
MATHEMATICS	HINDI

On combining 1 and 3 we get:

MATHEMATICS
LAW
HINDI
SANSKRIT

Case I of point 3 is not possible because from point 1 we know Sanskrit is below Hindi and hence Law book can't be below Hindi.

Therefore, Case I of statement 3 is eliminated as it violates statement 1.

Again combining the output of statement 1 and 3 with statement 2 we get:

SCIENCE
ENGLISH
MATHEMATICS
LAW
HINDI
SANSKRIT

Case II of statement 3 is eliminated because Law book is below Mathematics and hence due to position crisis we eliminate the case.

Final Solution:

SCIENCE
ENGLISH
MATHEMATICS
LAW
HINDI
SANSKRIT

Hence, Law book is at the fourth position from the top.

36. Answer: b

Explanation:

Wrote cannot be formed using word 'Abettor' because there is no 'w' in it.

37. Answer: d

Explanation:

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

The pattern followed here is:

T R A V E L
 ↓ +3 ↓ +4 ↓ +5 ↓ +3 ↓ +4 ↓ +5
 W V F Y I Q

Similarly,

T A B L E T
 ↓ +3 ↓ +4 ↓ +5 ↓ +3 ↓ +4 ↓ +5
 W E G O I Y

Hence, the answer is 'WEGOIY'.

38. Answer: c

Explanation:

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

The pattern that follows here is:

R	I	P
↓+2	↓+3	↓+4
T	L	T
↓+2	↓+3	↓+4
V	O	X
↓+2	↓+3	↓+4
X	R	B
↓+2	↓+3	↓+4
Z	U	F

Hence, the answer is ZUF.

39. Answer: b

Explanation:

The logic/rule followed here is:

$$24 + 2 = 26;$$

$$26 + 2 = 28;$$

$$28 + 2 = 30;$$

$$30 + 2 = 32;$$

$$32 + 2 = 34$$

Hence, answer is '30'.

40. Answer: d

Explanation:

The logic/rule/relation followed here is:

1) $(4, 8, 16) \rightarrow 4 \times 2 = 8; 8 \times 2 = 16$

2) $(9, 18, 36) \rightarrow 9 \times 2 = 18; 18 \times 2 = 36$

3) $(6, 12, 24) \rightarrow 6 \times 2 = 12; 12 \times 2 = 24$

4) $(5, 10, 25) \rightarrow 5 \times 2 = 10; 10 \times 2 = 20 \neq 25$

Hence, $(5, 10, 25)$ is the odd one out.

41. Answer: b

Explanation:

Symbol	-	+	$\times$	$\div$
Meaning	+	$\times$	$\div$	-

Given equation: $13 - 14 + 15 \times 70 \div 14 = ?$

On replacing the symbol:

$$13 + 14 \times 15 \div 70 - 14 = ?$$

$$\rightarrow 13 + 210 \div 70 - 14$$

$$\rightarrow 13 + 3 - 14$$

$$\rightarrow 16 - 14$$

$$\rightarrow 2$$

Hence, answer is '2'.

42. Answer: c

Explanation:

Given equation:

$$8 \div 2 - 50 \times 6 + 16 = 50$$

After interchanging '+' and '×' we get:

$$\text{L.H.S of equation: } 8 \div 2 - 50 + 6 \times 16$$

$$\rightarrow 4 - 50 + 96$$

$$\rightarrow 100 - 50$$

$$\rightarrow 50 = \text{R.H.S}$$

Hence, answer is '+' and '×'.

43. Answer: d

Explanation:

The logic/rule followed here is:

$$60 \# 40 = 10 \rightarrow 6 + 0 + 4 + 0 = 10$$

$$40 \# 20 = 6 \rightarrow 4 + 0 + 2 + 0 = 6$$

$$60 \# 90 = 15 \rightarrow 6 + 0 + 9 + 0 = 15$$

$$40 \# 30 \rightarrow 4 + 0 + 3 + 0 = 7$$

Hence, answer is '7'.

44. Answer: a

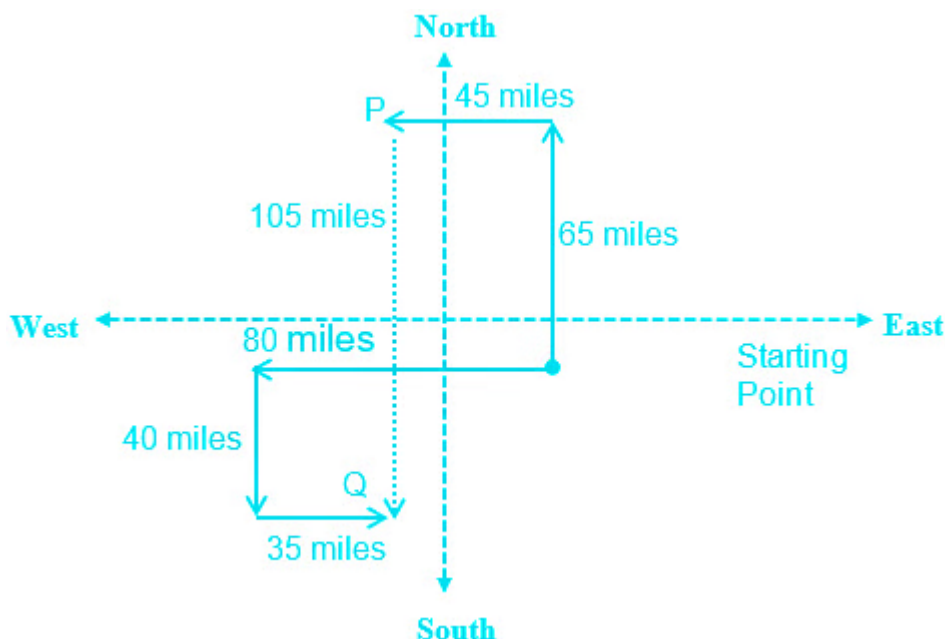
Explanation:

<u>Z</u>	Y	X	Y	X	Y	X	Y
X	<u>W</u>	X	Y	X	Y	X	Y
X	Y	<u>Z</u>	Y	X	Y	X	Y
X	Y	X	<u>W</u>	X	Y	X	Y
X	Y	X	Y	<u>Z</u>	Y	X	Y
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>X</u>	<u>W</u>	<u>X</u>	<u>Y</u>

Hence, answer is 'XYXYXWXY'.

45. Answer: d

Explanation:



Hence, aeroplane Q is 105 miles South with respect to aeroplane P.

46. Answer: d

Explanation:

The least possible Venn diagram is as follows:



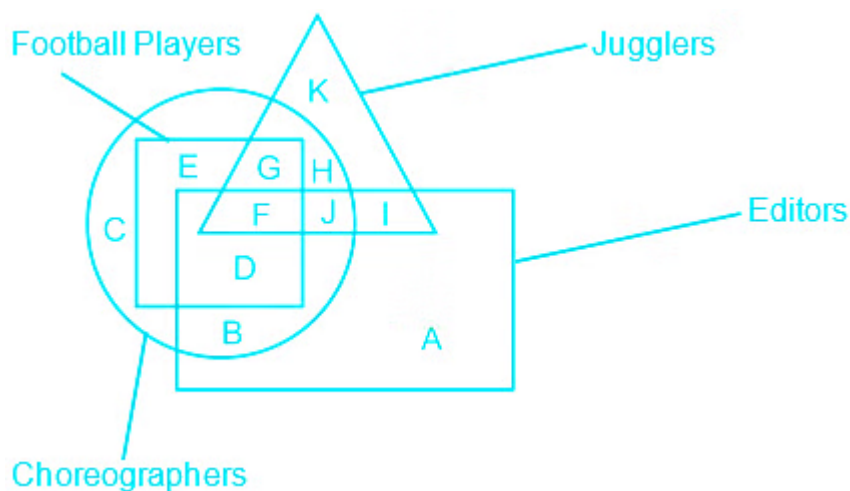
Conclusion I: All baskets are buckets → False (No buckets are bins)

Conclusion II: All buckets are baskets → False (It is possible but not definite)

Hence, neither conclusion I nor conclusion II follows.

47. Answer: d

Explanation:



Hence, the answer is 'AB'.

48. Answer: d

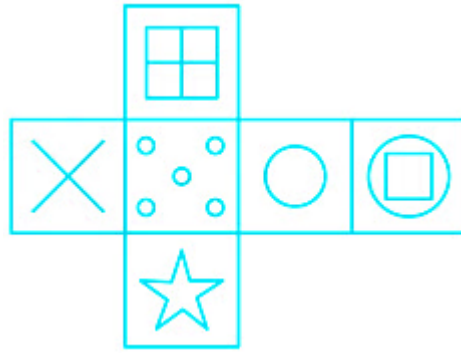
Explanation:



Hence, option '4' is the correct answer.

49. Answer: d

Explanation:



From the figure we can conclude:

- 1) The face of dice with a star will be opposite to the side with four square.
- 2) The side with cross will be opposite the side with a circle.
- 3) The side with five small circles will be opposite to the side with circle and square.



Here in the figure above the face of dice with star and side with four square are adjacent to each other. Hence, it cannot be made based on the unfolded cube in the question figure.

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50. Answer: d

Explanation:

- 1) 41, 77, 14, 89 → G, S, A, P
- 2) 11, 67, 34, 67 → H, U, L, U
- 3) 13, 75, 42, 67 → F, T, K, U
- 4) 32, 65, 30, 87 → B, O, D, Y

Hence, answer is '32, 65, 30, 87'.

51. Answer: c

Explanation:

Calculation:

$$\frac{196}{0.196} = \frac{19.6}{x}$$

$$\Rightarrow 196x = 19.6 \times 0.196$$

$$\Rightarrow x = \frac{(19.6 \times 0.196)}{196}$$

$$\Rightarrow x = \frac{(196 \times 196)}{1960000}$$

$$\Rightarrow x = 0.0196$$

$\therefore$ The correct answer is 0.0196

52. Answer: a

Explanation:

Let the number be x

$$\frac{1}{33} \times \frac{1}{66} \times \frac{1}{3} \times \frac{1}{66} \times 10000 \times x$$

$$\Rightarrow (10000/431244) \times x$$

$$\Rightarrow 0.0232x$$

$$\therefore \text{Percentage} = (0.0232x/x) \times 100 = 2.32\%$$

53. Answer: b

Explanation:

$$(6x^2 - 5y^2)(6x^2 + 5y^2)$$

$$\because x = 1/\sqrt{3} \text{ and } y = 1/\sqrt{5}$$

$$\Rightarrow [6(1/\sqrt{3})^2 - 5(1/\sqrt{5})^2][6(1/\sqrt{3})^2 + 5(1/\sqrt{5})^2]$$

$$\Rightarrow [6(1/3) - 5(1/5)][6(1/3) + 5(1/5)]$$

$$\Rightarrow [2 - 1][2 + 1]$$

$$\Rightarrow 3$$

$$\therefore (6x^2 - 5y^2)(6x^2 + 5y^2) = 3$$

54. Answer: c

Explanation:

$$\because a \otimes b = (a + b)(a \times b)$$

$$\Rightarrow 6 \otimes 5 = (6 + 5)(6 \times 5)$$

$$\Rightarrow 6 \otimes 5 = 11 \times 30$$

$$\therefore 6 \otimes 5 = 330$$

55. Answer: c

Explanation:

Let the angles of triangle are x , $2x$ and $3x$

Angles sum properties of triangle,

$$x + 2x + 3x = 180$$

$$\Rightarrow 6x = 180$$

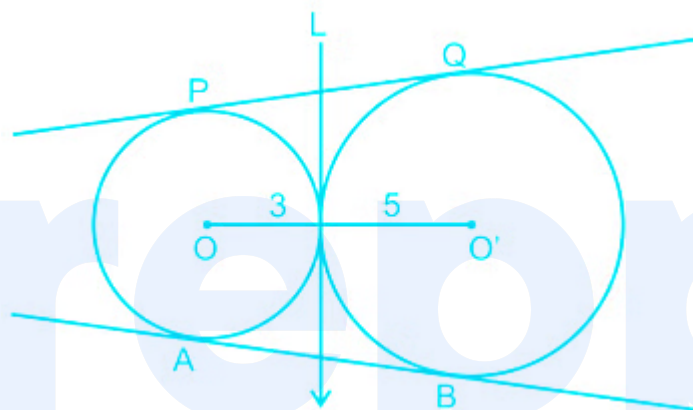
$$\Rightarrow x = 30$$

Angles of triangle are 30, 60 and 90

$\therefore$ Triangles is the Right angle triangle

56. Answer: b

Explanation:



$\therefore$ The diameter of the two circles is 6 units and 10 units and center distance is 8 units

Then, the radius of the two circles is 3 units and 5 units

According to given conditions, both circles just touches each other at a point

Number of common tangents that can be drawn to both the circle = PQ and AB (2 direct tangent) and line L (1 common tangent)

$\therefore$ Number of common tangents that can be drawn to both the circle = 3

57. Answer: b

Explanation:

$\therefore$ Quantity of water in the mixture of 240 litres = 15% of 240 = 36 litres

Let the extra water added be x

So, water become $(36 + x)$ litres and mixture become $(240 + x)$ litres

According to question,

$$(36 + x) / (240 + x) = 25/100$$

$$\Rightarrow (36 + x) / (240 + x) = 1/4$$

$$\Rightarrow 4 \times (36 + x) = (240 + x)$$

$$\Rightarrow 144 + 4x = 240 + x$$

$$\Rightarrow 3x = 240 - 144 = 96$$

$$\Rightarrow x = 32$$

$\therefore$ Extra water should be added to make water 25% = 32 litres

58. Answer: b

Explanation:

$\therefore$ 8 year ago the ratio of age of father and his son was 7 : 4

Let the father and son age be $7x$ and $4x$ respectively

Present age of father and son is $(7x + 8)$ and $(4x + 8)$ respectively

According to question,

$$(7x + 8) + (4x + 8) = 126$$

$$\Rightarrow 11x + 16 = 126$$

$$\Rightarrow x = 10$$

Present age of father = $(7x + 8) = 78$ years and present age of son = $(4x + 8) = 48$ years

After 7 years, father = $78 + 7 = 85$ years and son = $48 + 7 = 55$ years

$\therefore$ After 7 years the ratio of ages of father and son = $85 : 55 = 17 : 11$

59. Answer: a

Explanation:

Let x litre of the first mixture and y litre of the second mixture are mixed.

Quantity of spirit in x litre of the first mixture = $5x/6$

Quantity of spirit in y litre of second mixture = $3y/10$

The total quantity of the resultant mixture = $(x + y)$

Quantity of spirit in $(x + y)$ litre of the resultant mixture = $(x + y) / 2$

$$5x/6 + 3y/10 = (x + y) / 2$$

$$\Rightarrow (25x + 9y) / 30 = (x + y) / 2$$

$$\Rightarrow 25x + 9y = 15 \times (x + y)$$

$$\Rightarrow 25x + 9y = 15x + 15y$$

$$\Rightarrow 10x = 6y$$

$$\Rightarrow x/y = 3/5$$

$\therefore$ required ratio = $3 : 5$

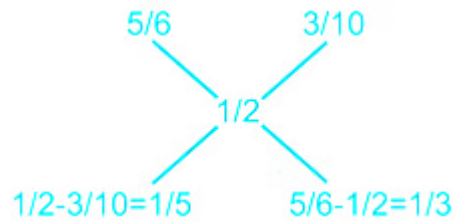
Alternative method :

Concentration of spirit in the first mixture = $5/6$

Concentration of spirit in the second mixture = $3/10$

Concentration of spirit in the resultant mixture = $\frac{1}{2}$

By rule of allegation,



$\therefore$ Required ratio = $(\frac{1}{5}) : (\frac{1}{3}) = 3 : 5$

60. Answer: c

Explanation:

$\therefore$ 5th and 6th numbers are in the middle of 10 consecutive numbers

Let the 5th and 6th number be x and $(x + 1)$ respectively

$\therefore$ Average of the two numbers given in the middle is 13.5

Sum of two number = 13.5×2

$\Rightarrow x + (x + 1) = 13.5 \times 2$

$\Rightarrow 2x + 1 = 27$

$\Rightarrow x = 13$

The 5th and 6th number is 13 and 14 respectively

The first 6 numbers are 9, 10, 11, 12, 13 and 14

$\therefore$ The sum of the first 6 numbers = $9 + 10 + 11 + 12 + 13 + 14 = 69$

61. Answer: d

Explanation:

Let the rate of interest be $r\%$

$\therefore$ principle (P) = Rs. 4000, time (t) = 6 years

According to question,

Simple Interest (SI) = Amount – principle amount = 7000 – 4000 = Rs. 3000

$\Rightarrow$ Simple Interest (SI) = $(P \times r \times t)/100$

$\Rightarrow 3000 = (4000 \times r \times 6)/100$

$\Rightarrow r = (25/2) \%$

Now, rate become double ie. 25% for 6 years

Amount = $SI + P$

$\Rightarrow$ Amount = $(4000 \times 25 \times 6)/100 + 4000$

$\therefore$ Amount = 6000 + 4000 = Rs. 10000

62. Answer: b**Explanation:**

Selling price (SP) of 39 articles = Cost price (CP) of 42 articles

$SP \times 39 = CP \times 42$

$\Rightarrow SP/CP = 14/13$

Profite = $14 - 13 = 1$

$\therefore$ Profit % = $(1/13) \times 100 = 7.69\%$

63. Answer: b

Explanation:

$\therefore$ Marked price (MP) of a trouser = $2 \times$ the cost price (CP)

$$\Rightarrow \text{MP/CP} = 2/1$$

Let MP is $m\%$ more than the CP

$$m = \left[\frac{(\text{MP} - \text{CP})}{\text{CP}} \right] \times 100$$

$$\Rightarrow m = 100\%$$

$\therefore p = m - d - (m \times d) / 100$ [$\therefore p = \text{profit\%}$ and $d = \text{discount\%}$]

$$\Rightarrow 36 = 100 - d - (100 \times d) / 100$$

$$\Rightarrow 36 = 100 - 2d$$

$$\Rightarrow d = 64/2 = 32\%$$

$\therefore$ discount = 32%

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64. Answer: c

Explanation:

$$\begin{aligned} & \frac{\sqrt{5} + \sqrt{4}}{\sqrt{5} - \sqrt{4}} + \frac{\sqrt{5} - \sqrt{4}}{\sqrt{5} + \sqrt{4}} \\ \Rightarrow & \frac{\sqrt{5} + \sqrt{4}}{\sqrt{5} - \sqrt{4}} \times \frac{\sqrt{5} + \sqrt{4}}{\sqrt{5} + \sqrt{4}} + \frac{\sqrt{5} - \sqrt{4}}{\sqrt{5} + \sqrt{4}} \times \frac{\sqrt{5} - \sqrt{4}}{\sqrt{5} - \sqrt{4}} \\ \Rightarrow & \frac{(\sqrt{5} + \sqrt{4})^2}{(\sqrt{5})^2 - (\sqrt{4})^2} + \frac{(\sqrt{5} - \sqrt{4})^2}{(\sqrt{5})^2 - (\sqrt{4})^2} \\ \Rightarrow & \frac{5 + 4 + 2\sqrt{20} + 5 + 4 - 2\sqrt{20}}{5 - 4} \\ \Rightarrow & 18 \end{aligned}$$

$$\therefore \frac{\sqrt{5} + \sqrt{4}}{\sqrt{5} - \sqrt{4}} + \frac{\sqrt{5} - \sqrt{4}}{\sqrt{5} + \sqrt{4}} = 18$$

65. Answer: b

Explanation:

P and Q can make a table in 16 days and 20 days respectively

P's single day work = $1/16$

Q's single day work = $1/20$

Q's single 5 day work = $(1/20) \times 5 = 1/4$

Remaining work to do = $1 - 1/4 = 3/4$

$\therefore$ P can complete the remaining work = $(3/4) \div (1/16) = 12$ days

66. Answer: a

Explanation:

Given:

A boat covers a distance of 14 km upstream and 16 km downstream in 9 hours.

It covers a distance of 12 km upstream and 40 km downstream in 11 hours.

Concept Used:

Upstream Speed = $B - S$

Downstream Speed = $B + S$

Time (T) = Distance (D)/Speed(S)

B = Speed of Boat

S = Speed of Stream

Calculation:

Let the speed of boat in still water = B km/hr and current flow = R km/hr

Speed in upstream = $(B - R) = x$

Speed in downstream = $(B + R) = y$

According to question,

$$14/x + 16/y = 9$$

$$\Rightarrow 16x + 14y = 9xy \text{ ---- (1)}$$

$$12/x + 40/y = 11$$

$$\Rightarrow 40x + 12y = 11xy \text{ ---- (2)}$$

Divide equation (1) by (2)

$$(16x + 14y) / (40x + 12y) = 9/11$$

$$\Rightarrow 176x + 154y = 360x + 108y$$

$$\Rightarrow 184x = 46y$$

$$\Rightarrow x = y/4 \text{ ---- (3)}$$

Putting value of 'x' in equation (1)

$$16y/4 + 14y = 9y \times y/4$$

$$\Rightarrow y = 8$$

From equation (3), $x = 2$

$$\therefore x = (B - R) = 2 \text{ ---- (4)}$$

$$y = (B + R) = 8 \text{ ---- (5)}$$

Adding equation (4) and (5)

$$2B = 10$$

$$\Rightarrow B = 5$$

$\therefore$ The speed of the boat in still water is 5 km/hr.

67. Answer: b

Explanation:

$\therefore$ A' share in the business = Rs. 70 lakhs

B' share in the business = Rs. 30 lakhs

C' share in the business = Rs. 20 lakhs

D' share in the business = Rs. 60 lakhs

E' share in the business = Rs. 60 lakhs

F' share in the business = Rs. 90 lakhs

G' share in the business = Rs. 30 lakhs

$\therefore$ A got the second highest share in the profit

68. Answer: c

Explanation:

$\therefore$ A' share in the business = Rs. 70 lakhs

B' share in the business = Rs. 30 lakhs

C' share in the business = Rs. 20 lakhs

D' share in the business = Rs. 60 lakhs

E' share in the business = Rs. 60 lakhs

F' share in the business = Rs. 90 lakhs

G' share in the business = Rs. 30 lakhs

$\therefore$ The total Profit of the business of the year 2017 = $(70 + 30 + 20 + 60 + 60 + 90 + 30)$
= Rs. 360 lakhs

69. Answer: b

Explanation:

$\therefore$ Complete angle pie chart = 360°

The total Profit of the business of the year 2017 = $(70 + 30 + 20 + 60 + 60 + 90 + 30)$
= Rs. 360 lakhs

The central angle of the sector representing share in profits of partner E = $(60/360) \times 360$

$\therefore$ The central angle of the sector representing share in profits of partner E = 60°

70. Answer: b

Explanation:

$\therefore$ The total Profit of the business of the year 2017 = $(70 + 30 + 20 + 60 + 60 + 90 + 30)$
= Rs. 360 lakhs

According to question,

C's share in the profit of Rs. 45 lakhs = $(20/360) \times 45$

$\therefore$ C's share = Rs. 2.5 lakhs

71. Answer: a

Explanation:

$$\therefore \text{Perimeter of rectangle} = 2(\text{length} + \text{breadth})$$

$$\therefore \text{Perimeter of rectangle} = 2(15 + 8) = 46 \text{ cm}$$

72. Answer: c

Explanation:

$$\therefore \text{Area of semi-circle} = \frac{1}{2}(\text{area of circle})$$

$$\text{Area of semi-circle} = \frac{(\pi r^2)}{2}$$

$$\Rightarrow 693 = \frac{(22/7) \times r^2}{2}$$

$$\Rightarrow r^2 = \frac{(693 \times 7 \times 2)}{22}$$

$$\Rightarrow r = 21$$

$$\therefore \text{Radius of semi-circle} = 21 \text{ cm}$$

73. Answer: c

Explanation:

$$\therefore \text{diameter of circular cone} = 28 \text{ cm and slant height (l)} = 12 \text{ cm}$$

$$\text{So, radius} = 14 \text{ cm}$$

$$\text{Curved surface area of a right circular cone} = \pi r l$$

$$\Rightarrow \text{Curved surface area of a right circular cone} = \frac{(22}{7}) \times 14 \times 12$$

$\therefore$ Curved surface area of a right circular cone = 528 cm^2

74. Answer: a

Explanation:

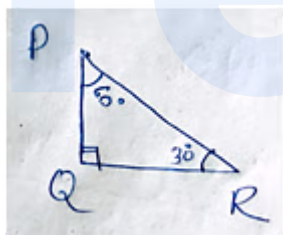
Given:

ΔPQR is right angled triangle with $\angle R = 30^\circ$ and $\angle Q = 90^\circ$

Concept used:

- Sum of three angles of a triangle is 180°
- $\cos 60^\circ = 1/2$

Calculation:



By angle sum property, $\angle P = 60^\circ$

$$\cos P - 1/3$$

$$= \cos 60^\circ - 1/3$$

$$= \frac{1}{2} - \frac{1}{3}$$

$$= \frac{1}{6}$$

$\therefore$ The value of $(\cos P - 1/3) = 1/6$

75. Answer: c

Explanation:

$\therefore \triangle ABC$ measure of angle B is 90°

Ratio of trigonometry, $\cot A = AB/BC$

$8/15 = 0.8/BC$ [$\therefore \cot A = 8/15$, and $AB = 0.8$ cm]

$\therefore BC = 1.5$ cm

76. Answer: d**Explanation:**

- A natural monopoly is a monopoly that exists because of the cost of producing the product i.e. a good or a service is lower due to economies of scale.
 - A natural monopoly occurs whenever an industry is high, and its market shared among two or more rival plants owning duplicate distribution networks.
 - A natural monopoly can also appear in smaller local markets for products that are difficult to transport.
-

77. Answer: c**Explanation:**

- In India, the Public Sector is most dominant in Commercial Banking
 - A Commercial Bank can accept deposits, offers to check account services and makes business, personal and mortgage loans.
 - It can also issue the financial product such as Certificates of Deposit and Savings Accounts to individuals and small businesses.
-

78. Answer: c

Explanation:

- The deepest Lake in the world is Baikal Lake.
- It is the largest freshwater lake by volume in the world, containing 22–23% of the world's fresh surface water.
- It contains more water than the North American Great Lakes combined with a maximum depth of 1,642 mt.
- It is also the world's deepest lake.

79. Answer: c

Explanation:

- *Kolleru Lake* is one of the largest freshwater lakes in India located in the state of *Andhra Pradesh*.
- *It* makes the largest shallow freshwater lake in Asia.
- There is also Kolleru Bird Sanctuary that covers mainly two districts of Andhra Pradesh namely - Krishna and West Godavari districts.

Lake	State
Lonar	Maharashtra
Nakki	Mountabu, Rajasthan
Kolleru	Andhra Pradesh
Pulicat	Coromandel Coast

80. Answer: a

Explanation:

- The tomb of Sher Shah Suri is in the Sasaram town, state of Bihar.
- The tomb was built in memory of Emperor Sher Shah Suri.
- He was a Pathan from Bihar who defeated the Mughal Empire and founded the Suri Empire in Northern India.

81. Answer: d

Explanation:

The correct answer is Lord Wellesley.

★ Key Points

- Lord Wellesley (1798 AD–1803 AD):
 - He introduced the system of the Subsidiary alliance.
 - Madras Presidency was formed during his tenure.
 - The fourth Anglo-Mysore War was fought by him in 1799 AD, and Tipu Sultan died.
 - He signed the first subsidiary treaty with Nizam of Hyderabad.
 - He set up Fort William College in Calcutta in 1800 AD.
 - He was also known as *Bengal Tiger*.
 - He brought the censorship of the Press Act, 1799 AD.
 - Treaty of Bassein was signed during his tenure in 1802 AD.

★ Additional Information

- Lord Cornwallis started the permanent settlement of Bengal.
- The first governor-general in India (of Bengal) was Warren Hastings in 1773.
- The Dual System of Government in Bengal was introduced by **Lord Clive**.
 - Clive served twice as Governor of Bengal.

- He was the Governor of Bengal from 1757–60 and from 1765–67.
-

82. Answer: b

Explanation:

- Syadvada was the fundamental basis of Jainism.
 - It is the teaching of the relativism of judgments states that all actual and possible statements regarding an object are respective.
 - The fundamental way of living is Non-Violence, Non-hurting, Non-harming, Non-hating, Truthfulness, Non-stealing, Celibacy, and Non-Possessiveness of things, people and thoughts.
-

83. Answer: a

Explanation:

- Latin America and the Caribbean countries have been ranked as the world's most violent region for women.
 - In this region, the rate of sexual violence against women outside of relationships is the highest in the world.
 - The second-highest for those who are in or were in a relationship.
-

84. Answer: c

Explanation:

- Manushi Chillar won the title of Miss World 2017.
- She is the sixth Indian woman to win Miss World title.
- She was also the winner of Miss India 2017.
- She was inaugurated by Miss World 2016, Miss Stephanie Del Valle.

85. Answer: a

Explanation:

- The Royal Bengal tiger is the national animal of Bangladesh.
 - Royal Bengal tiger is the symbol of bravery and sharp intelligence.
 - They are also representing the power as they are very strong.
 - As they are such a powerful, intelligent and majestic animal, Royal Bengal tiger is regarded as the national animal of Bangladesh.
-

86. Answer: a

Explanation:

- In the modern periodic table while going from top to bottom in a group the size of an atom increases.
- From left to right in a periodic table, the atomic volume first decreases due to the increase of nuclear charge .
- The number of electrons in the valence shell keeps increasing, results in a decrease of effective nuclear charge due to the shielding effect .Due to this atomic radius increases and thus atomic volume increases

Table: Modern Periodic table

Legend:

- Alkali metals
- Alkaline Earth Metals
- Halogens
- Nobel gases

The zig zag line separates the metals from the non metals

GROUP NUMBER		GROUP NUMBER																GROUP NUMBER					
1	2																	13	14	15	16	17	18
1	2																	5	6	7	8	9	10
2	3																	6	7	8	9	10	
3	4																	7	8	9	10	11	
4	5																	8	9	10	11	12	
5	6																	9	10	11	12	13	
6	7																	10	11	12	13	14	
7	8																	11	12	13	14	15	
8	9																	12	13	14	15	16	
9	10																	13	14	15	16	17	
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157	158																	161	162	163	164	165	
158	159																	162	163	164	165	166	
159	160																	163	164	165	166	167	
160	161																	164	165	166	167	168	
161	162																	165	166	167	168	169	
162	163																	166	1				

- According to Article 75 of Indian Constitution, the ministers are collectively responsible to the Parliament in general and to the Lok Sabha in particular.
- Lok Sabha is the bridge between the Executive and the Legislature.
- The Lok Sabha is the lower house of bicameral Parliament.
- The total number of Ministers, including the Prime Minister, in the Council of Ministers, shall not exceed fifteen per cent of the total number of members of Lok Sabha.

89. Answer: d

Explanation:

- The marriage differs around the world between cultures and religions. Divorce requires the sanction of a court or other authority in a legal process, which may involve issues of maintenance.
- India has excess power generation capacity, but it lacks in appropriate infrastructure for supplying electricity to all needful people.
- Labour welfare improves physical, mental and moral conditions of the worker.
- It includes housing, medical, educational, restrooms, recreation, canteen, games and sports club facilities, adequate wages, reasonable working hours, insurance etc.

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90. Answer: a

Explanation:

- Contractile protein is the special proteins in muscles that contract and relax to cause movement.
- The cytoplasm of cells is a colloidal network of contractile proteins.
- Actin filaments are the major components of this network.
- Other contractile proteins interact with this filament to create structural rigidity and movement.

91. Answer: c

Explanation:

- A Pteridophyte is a plant having a body that is differentiated into roots, stems and leaves and has a specialized tissue for the conduction of water and other substances.
- It is a sensulato is a vascular plant with xylem and phloem that reproduces through spores.
- It contains the ferns, horsetails, and the lycophytes clubmosses, spike mosses, and quillworts.

92. Answer: b

Explanation:

- In January 2018, 'Electoral Bonds' Scheme was launched. Under this scheme, the electoral bonds will be available at specified branches of State Bank of India.
- It is the only approved bank to issue such type of bonds.
- A person being an individual can buy electoral bonds, either singly or jointly, with other individuals.
- Electoral bonds were issued at SBI branches in New Delhi, Mumbai, Kolkata and Chennai.

93. Answer: a

Explanation:

- By using Polyurethane foam the Researchers from Indian Institute of Technology – Bombay has made a low-cost piezoresistive vibration sensor.

- It is a polymer made up of biotic units joined by carbamate links.
- They are thermosetting polymers that do not melt when heated.
- Conventional piezoelectric and microelectromechanical systems-based vibration sensors developed for this type of applications.

94. Answer: d

Explanation:

- ICO (Initial Coin Offering) is related to *Cryptocurrency*.
- It is a digital asset designed to work as a medium of exchange that uses strong cryptography to secure financial transactions, control the creation of additional units, and it also verifies the transfer of assets.

95. Answer: b

Explanation:

- As per the Global Gender Gap report, India's rank in the Educational Attainment pillar was 112. India scores 0.952.
- India's overall literacy rate shows difference between men with eighty percent and women with fifty-nine percent.

96. Answer: d

Explanation:

Correct answer is **75**

CONCEPT:

- Equation of motion : The mathematical equations used to find the final velocity, displacements, time, etc of a moving object without considering force acting on it are called equations of motion.
- These equations are only valid when the acceleration of the body is constant and they move on a straight line.

There are three equations of motion :

$$V = u + at$$

$$V^2 = u^2 + 2as$$

$$S = ut + \frac{1}{2}at^2$$

Where, V = final velocity, u = initial velocity, s = distance traveled by the body under motion, a = acceleration of body under motion, and t = time taken by the body under motion.

CALCULATION:

Given that:

Initial velocity (u) = 10 m/s

Acceleration (a) = 2 m/s²

Time (t) = 5 sec

$$S = ut + \frac{1}{2}at^2$$

$$\text{Displacement (S)} = 10 \times 5 + \frac{1}{2} \times 2 \times 5^2 = 75 \text{ m}$$

Hence option 4 is correct.

97. **Answer: a**

Explanation:

- The 1 W unit measure equals to 1.00 J/s as the equivalent measure for the same power type.
 - Energy is measured in Joules while power is measured in watts.
 - 1 watt is defined as 1 joule/sec. The joules per second unit number 1.00 J/s converts to 1 watt.
-

98. Answer: d

Explanation:

- Air pollutants are the substances which contaminate the air.
 - It is a material in the air that can have harmful effects on humans and the ecosystem.
 - The substance can be solid particles, liquid droplets, or gases.
 - Examples include carbon monoxide gas from motor vehicle exhaust and the sulphur dioxide released from factories and industries.
-

99. Answer: c

Explanation:

- Rafael Nadal won Tennis 2017, 10th French Open title and 15th Grand Slam singles title by defeating Stan Wawrinka in the final.
 - In 2017, Marc Marquez raced in MotoGP for Honda.
 - He started the 2017 season with a 4th-place finish in Qatar, followed by a crash while leading in Argentina.
 - His current MotoGP victory places him in the top ten in wins all time and second for Honda in the premier class.
-

100. Answer: d

Explanation:

- In HTML, a footer area is at the bottom of the page and usually contains disclaimers, copyright information etc.
- A footer is an area at the bottom of a document page that contains data common to other pages.
- The information in footers consists of things like page numbers, creation dates, copyrights, or references.

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