



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 CHSL 2017 (Tier-I) Previous Year Paper (26-Mar-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, 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)

Industries should regularly check (1)/ if their machines are emitting (2)/ smoke within permission limits. (3)/ No error (4)

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

2. In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'. (+2, -0.5)

"Our focus is to develop and nurture a democratic (1)/ and accommodative space/platform wherever we go, (2)/ so that all kind of arts can flourish. (3)/ No error (4)

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

3. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option. (+2, -0.5)

The old man was _____ and poor.

- a. infirm
- b. infer
- c. confirm
- d. luxurious

-
4. In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option. (+2, -0.5)

She _____ all her money at one shop in the mall.

- a. ignored
- b. spent
- c. given
- d. lawned

-
5. 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)

Scurrility

- a. Godliness
 - b. Reverence
 - c. Atrocity
 - d. Piety
-

6. 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)

Sanguine

- a. Pale
- b. Vocalise
- c. Buoyant
- d. Foolish

-
7. 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)

Verdant

- a. Grassy
- b. Lush
- c. Dying
- d. Fresh

-
8. 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)

Tyro

- a. Beginner
- b. Recruit
- c. Virgin

d. Professional

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

(+2, -0.5)

"Make in India" is not a mere

P: accomplished by a single-minded

Q: slogan but a mission to be

R: commitment towards new processes

a. QRP

b. QPR

c. PQR

d. RPQ

10. 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)

George Orwell wrote 1984.

a. 1984 is wrote by George Orwell.

b. 1984 was wrote by George Orwell.

c. 1984 was written by George Orwell.

d. 1984 written by George Orwell.

11. 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)

Gopal said to his friends, "Are you angry?"

- a. Were they angry, asked Gopal.
- b. Gopal asked why they are angry.
- c. Gopal asked them whether they are angry.
- d. Gopal asked his friends whether they were angry.

12. 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. Intreupction
- b. Interruption
- c. Interruption
- d. Interuption

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)

A brain and nervous system that are poorly developed or insufficiently nourished means low grade of _____ in our mental processes, just as a poorly constructed or wrongly adjusted motor means loss of power in applying the electric current to its work. We will, _____, look upon the mind and the brain as counterparts of _____ other, each performing activities which correspond to activities in the other, _____ inextricably bound together at least so far as this life is concerned, and each getting its _____ by its union with the other. This view will lend interest to a brief study of the brain and nervous system.

nourished means low grade of _____ in our mental processes

- a. efficiently
- b. efficiencies
- c. efficiency
- d. efficient

14. 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)

A brain and nervous system that are poorly developed or insufficiently nourished means low grade of _____ in our mental processes, just as a poorly constructed or wrongly adjusted motor means loss of power in applying the electric current to its work. We will, _____, look upon the mind and the brain as counterparts of _____ other, each performing activities which correspond to activities in the other, _____ inextricably bound together at least so far as this life is concerned, and each getting its _____ by its union with the other. This view will lend interest to a brief study of the brain and nervous system.

We will, _____, look upon the mind

- a. if
- b. then
- c. than
- d. so

15. 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)

A brain and nervous system that are poorly developed or insufficiently nourished means low grade of _____ in our mental processes, just as a poorly constructed or wrongly adjusted motor means loss of power in applying the electric current to its work. We will, _____, look upon the mind and the brain as counterparts of _____ other, each performing activities which correspond to activities in the other, _____ inextricably bound together at least so far as this life is concerned, and each getting its _____ by its union with the other. This view will lend interest to a brief study of the brain and nervous system.

as counterparts of _____ other, each performing

- a. only
- b. every
- c. once
- d. each

16. 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)

A brain and nervous system that are poorly developed or insufficiently nourished means low grade of _____ in our mental processes, just as a poorly constructed or wrongly adjusted motor means loss of power in applying the electric current to its work. We will, _____, look upon the mind and the brain as counterparts of _____ other, each performing activities which correspond to activities in the other, _____ inextricably bound together at least so

far as this life is concerned, and each getting its _____ by its union with the other. This view will lend interest to a brief study of the brain and nervous system.

in the other, _____ inextricably bound together

- a. two
- b. them
- c. pair
- d. both

17. 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)

A brain and nervous system that are poorly developed or insufficiently nourished means low grade of _____ in our mental processes, just as a poorly constructed or wrongly adjusted motor means loss of power in applying the electric current to its work. We will, _____, look upon the mind and the brain as counterparts of _____ other, each performing activities which correspond to activities in the other, _____ inextricably bound together at least so far as this life is concerned, and each getting its _____ by its union with the other. This view will lend interest to a brief study of the brain and nervous system.

each getting its _____ by its union with

- a. significant
- b. significance
- c. significantly

d. significances

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

Cross that bridge when you come to it

- a. If you are brave then you can overcome all hurdles.
- b. A bridge is a path to a different world.
- c. It is always better to plan for an eventuality rather face it when you are unprepared.
- d. Deal with a problem when and if it arises.

-
19. 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 little bird told me

- a. Have a strong network of spies from where you get reliable information from which you can profit.
- b. Used to indicate that the speaker knows something but chooses to keep the identity of their informant secret.
- c. A secret which is known by everybody.
- d. A person unknowingly letting out a secret.

-
20. 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 is fanatical and uncompromising in pursuit of their religious, political, or other ideals

- a. Zealot
- b. Mezzo
- c. Medial
- d. Betwixt

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

Slow and careful movement or thought

- a. Vacuous
- b. Utter
- c. Deliberation
- d. Coherence

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

Husband (have retired) from service and the daughters had left home to pursue their dreams.

- a. had retired
- b. had retire
- c. had retiring
- d. no improvement

23. 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)

Certainly she (had been) under a lot of stress.

- a. was been
- b. have been
- c. had being
- d. no improvement

24. 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)

I am compelled to

A: being fully cognizant of the rich

B: effects of all languages on one another

C: call it an abomination despite

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

25. 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. neolithic

- b. neolithick
- c. neolethick
- d. neolethic

prepp

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General Intelligence

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

Apple : Fruit :: ? : ?

- a. Orange : Vegetable
- b. Table : Chair
- c. Fruit : Guava
- d. Scooter : Vehicle

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

39 : 66 :: 57 : ?

- a. 76
- b. 84
- c. 78
- d. 82

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

MZU : CPK :: QSP : ?

- a. GIH

- b. GIF
 - c. HJL
 - d. HJG
-

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

- a. Sun
 - b. Mercury
 - c. Mars
 - d. Venus
-

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 options. (+2, -0.5)

- a. 57 – 53
 - b. 47 – 41
 - c. 67 – 63
 - d. 71 – 67
-

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

- a. PLH

- b. MHD**
 - c. NJF**
 - d. KGC**
-

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

1. Earth 2. Each 3. Easily 4. Earnest 5. Early

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

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

14, 21, 42, 105, ?

- a. 285**
 - b. 315**
 - c. 305**
 - d. 215**
-

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)**

LT, MS, NR, OQ, ?

- a. LP
 - b. QP
 - c. PR
 - d. PP
-

35. Six persons P, A, V, K, J and C are sitting in a row facing north. C is to the immediate left of V who is third to the right of P. J is to the immediate left of K and is at one of the end. Who is to the immediate left of A? (+2, -0.5)

- a. C
 - b. P
 - c. K
 - d. J
-

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

Relinquished

- a. Line
 - b. Quite
 - c. Relied
 - d. Run
-

37. In a certain code language, "MOCKS" is written as "NNDJT". How is "FLAME" written in that code language? (+2, -0.5)

- a. KFBMA
- b. GKBLF
- c. LBHGK
- d. LBGHG

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

$$8 - 14 + 7 \times 10 \div 9 = ?$$

- a. 15
- b. 28
- c. 20
- d. 13

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

$$16 \times 8 - 4 \div 9 + 14 = 37$$

- a. + and ×
- b. + and ÷
- c. ÷ and -

d. and +

40. If $30\Omega 6 = -5$, $80\Omega 2 = -40$ and $20\Omega 4 = -5$, then find the value of $70\Omega 2 = ?$ (+2, -0.5)

- a. 10
- b. -35
- c. 15
- d. -20

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

YXXXXXX, YYXXXXX, YYYXXXX, YYYYXXX, YYYYYXX, -----.

- a. XXXXXXX
- b. YXXXXXX
- c. YYYYYXX
- d. YYXXXXX

42. A cyclist cycles 3.5 km West, then turns North and cycles 2.5 km North, then turns to his right and cycles 3.5 km, then turns North and cycles 4.5 km. Where is he now with respect to his starting position? (+2, -0.5)

- a. 2 km North
- b. 7 km South
- c. 7 km North

d. 2 km South

-
43. 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: No lighters are fire.

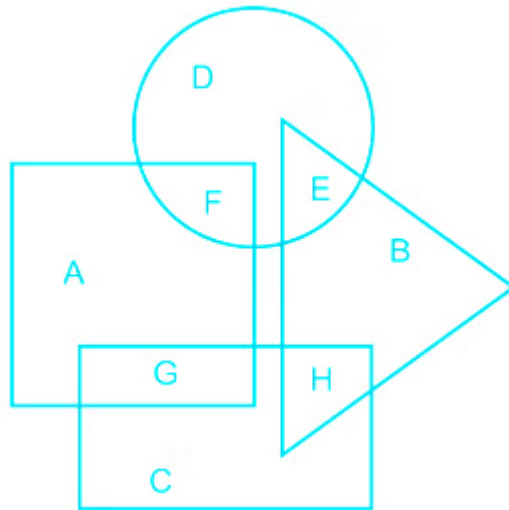
Statement II: All matchboxes are lighters.

Conclusion I: No fire are matchboxes.

Conclusion II: All matchboxes are fire.

- 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

-
44. In the following figure, rectangle represents Paramedics, circle represents Equestrians, triangle represents Photographers and square represents Fathers. Which set of letters represents Paramedics who are Photographers? (+2, -0.5)



- a. F
- b. E
- c. G
- d. H

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

RTM, QRJ, PPG, OND, ?

- a. NLZ
- b. MMZ
- c. MKB
- d. NLA

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

23, 19, 15, 11, ?

- a. 3
- b. 9
- c. 5
- d. 7

47. 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. (9, 18, 25)
- b. (7, 16, 23)
- c. (26, 35, 42)
- d. (19, 27, 35)

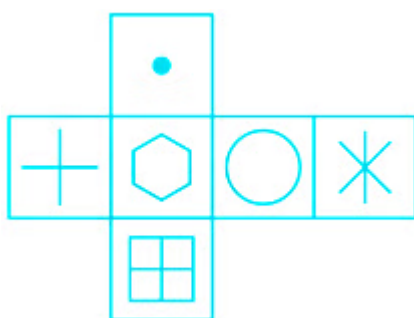
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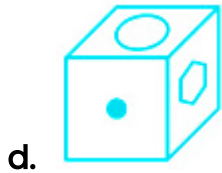
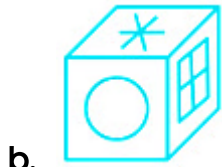
48. If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure? (+2, -0.5)





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)





50. A word is represented by only set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are 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 'E' can be represented by 10, 42 etc and 'T' can be represented by 59, 99 etc. Similarly, you have to identify the set for the word 'PEAK'.

(+2, -0.5)

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

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

- a. 43, 66, 33, 55
- b. 34, 76, 11, 87
- c. 41, 79, 31, 95
- d. 77, 42, 30, 41

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Quantitative Aptitude

51. The sum of squares of three consecutive natural numbers is 2702. What will be the middle number? (+2, -0.5)

- a. 29
- b. 30
- c. 31
- d. 32

52. Anuj runs $1\frac{2}{3}$ laps of 7 laps race, find the remaining laps to be run. (+2, -0.5)

- a. $16/3$
- b. $14/3$
- c. $11/3$
- d. $10/3$

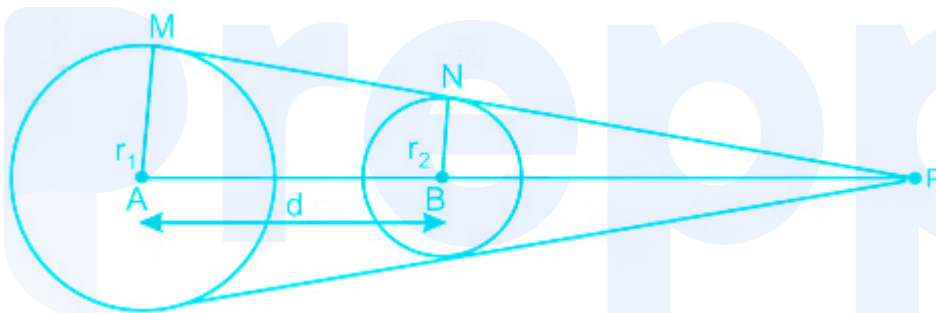
53. If $u + v = 10$ and $uv = 16$, then find the value of $(u^2 - v^2)/uv$. (+2, -0.5)

- a. 0
- b. $15/8$
- c. $15/4$
- d. $15/2$

54. If $x^2 + y^2 + z^2 - 8x + 6y - 4z + 29 = 0$, then find the value of $z(x + y)$. (+2, -0.5)

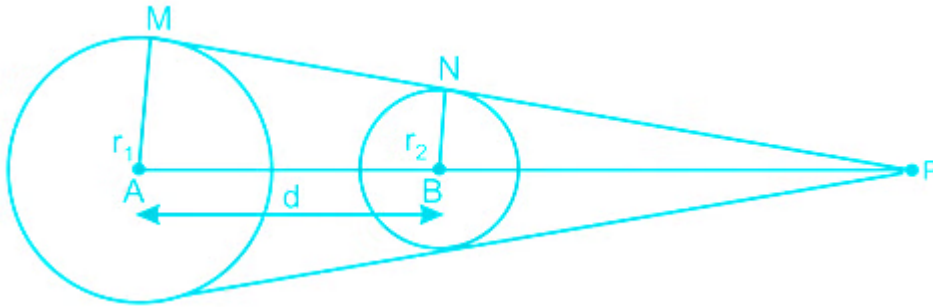
- a. 1
- b. 2
- c. 3
- d. 4

55. Consider the figure shown below and choose the **CORRECT** option for the length of MN. (+2, -0.5)



- a. $\sqrt{d^2 - (r_1 - r_2)^2}$
- b. $\sqrt{d^2 + (r_1 - r_2)^2}$
- c. $d^2 - (r_1 - r_2)^2$
- d. $d^2 + (r_1 - r_2)^2$

56. Consider the figure shown below and choose the **CORRECT** option for the ratio PA : PB. (+2, -0.5)



- a. $r_1 : r_2$ (internal)
- b. $r_1 : r_2$ (external)
- c. $r_2 : r_1$ (internal)
- d. $r_2 : r_1$ (external)

57. If the side of square is increased by 6%, then what will be the percentage increase in its area? (+2, -0.5)

- a. 13.5
- b. 12.04
- c. 12.12
- d. 12.36

58. The ratio of incomes of P and Q is 5 : 3. Ratio of income of Q and R is 5 : 2. If one-fourth of P's income is Rs. 500 more than the R's income, then what is the income (in Rs) of Q? (+2, -0.5)

- a. 7500
- b. 15000
- c. 30000

d. 18000

59. In a mixture, ink and water are in the ratio of 8 : 5. If 24 litres of water is added to the mixture, then the new ratio becomes 8 : 11. What is the total quantity (in litres) of water in the new mixture? (+2, -0.5)

a. 40

b. 42

c. 44

d. 48

60. Of the three numbers, the average of the first number and the second number is 37 more than the average of second number and third number. What is the difference between the first and the third number? (+2, -0.5)

a. 74

b. 73

c. 37

d. Cannot be determined

61. A certain sum of money becomes 4 times of itself in 30 years at a rate of simple interest. In how many years it will become double of itself at the same rate of simple interest (+2, -0.5)

a. 20

b. 15

c. 10

d. 12

62. A man sells an article at a profit of 35%. If he had bought it for 15% less price and sold it for Rs. 32 less, then he would have gained 40%. What is the initial cost price (in Rs) of the article? (+2, -0.5)

a. 250

b. 200

c. 300

d. 400

63. The marked price of a door is Rs. 1400. It is sold at a discount of 28%. If the cost price of the door is Rs. 700, then what is the profit (in Rs.)? (+2, -0.5)

a. 340

b. 428

c. 308

d. 368

64. If the value of $\sqrt{30}$ is approximately 5.477, then what is the approximate value of $\sqrt{(5/6)}$? (+2, -0.5)

a. 0.853

b. 0.891

c. 0.853

d. 0.891

e. 0.853

f. 0.891

g. 0.853

h. 0.891

i. 0.853

j. 0.891

k. 0.853

l. 0.891

m. 0.853

n. 0.891

o. 0.853

p. 0.891

q. 0.853

r. 0.891

s. 0.853

t. 0.891

u. 0.853

v. 0.891

w. 0.853

x. 0.891

y. 0.853

z. 0.891

aa. 0.853

ab. 0.891

ac. 0.853

ad. 0.891

ae. 0.853

af. 0.891

ag. 0.853

ah. 0.891

ai. 0.853

aj. 0.891

ak. 0.853

al. 0.891

am. 0.853

an. 0.891

ao. 0.853

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aq. 0.853

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bj. 0.891

bk. 0.853

bl. 0.891

bm. 0.853

bn. 0.891

bo. 0.853

bp. 0.891

bq. 0.853

br. 0.891

bs. 0.853

bt. 0.891

bu. 0.853

bv. 0.891

bw. 0.853

bx. 0.891

by. 0.853

bz. 0.891

ca. 0.853

cb. 0.891

cc. 0.853

cd. 0.891

ce. 0.853

cf. 0.891

cg. 0.853

ch. 0.891

ci. 0.853

cj. 0.891

ck. 0.853

cl. 0.891

cm. 0.853

cn. 0.891

co. 0.853

cp. 0.891

cq. 0.853

cr. 0.891

cs. 0.853

ct. 0.891

cu. 0.853

cv. 0.891

cw. 0.853

cx. 0.891

cy. 0.853

cz. 0.891

da. 0.853

db. 0.891

dc. 0.853

dd. 0.891

de. 0.853

df. 0.891

dg. 0.853

dh. 0.891

di. 0.853

dj. 0.891

dk. 0.853

dl. 0.891

dm. 0.853

dn. 0.891

do. 0.853

dp. 0.891

dq. 0.853

dr. 0.891

ds. 0.853

dt. 0.891

du. 0.853

dv. 0.891

dw. 0.853

dx. 0.891

dy. 0.853

dz. 0.891

ea. 0.853

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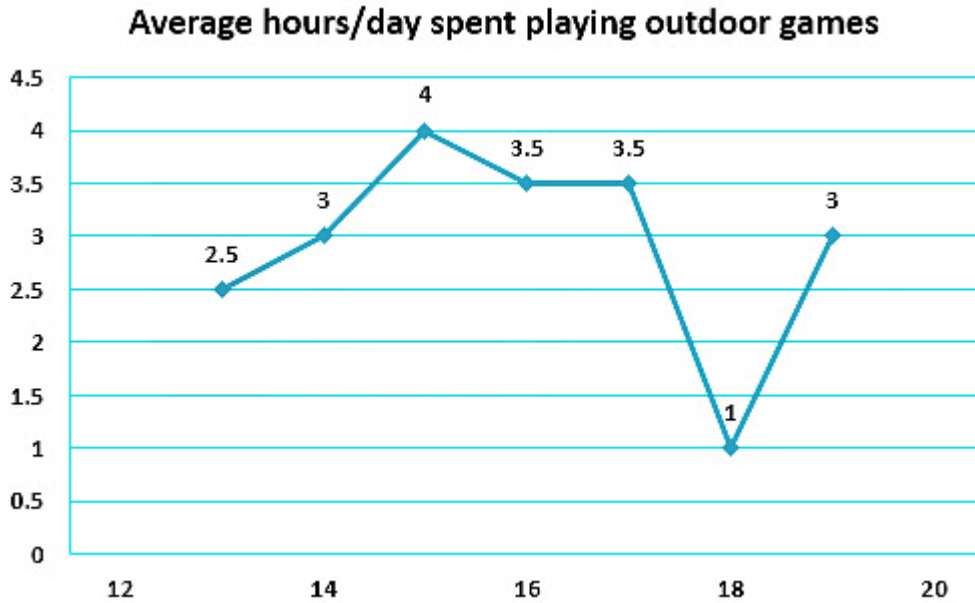
js. 0.853

- c. 0.913
 - d. 0.937
-

65. Vijay can do a work in 8 hours. Vijay and Puneet together can do the same work in 6 hours. Puneet and Sachin together can do the same work in 4 hours. Sachin alone can complete the same work in how many hours? (+2, -0.5)
- a. $22/5$
 - b. $28/5$
 - c. $24/5$
 - d. $26/5$
-

66. Two trains start moving from stations S and R. Both trains move towards each other at speeds of 35 km/hr and 42 km/hr respectively. When they meet each other, the second train has travelled 90 km more than the first. What is the distance (in km) between S and R? (+2, -0.5)
- a. 450
 - b. 990
 - c. 540
 - d. 1040
-

67. The line graph shows the average hours per day spent by teenagers in playing outdoors games. Study the diagram and answer the following questions. (+2, -0.5)



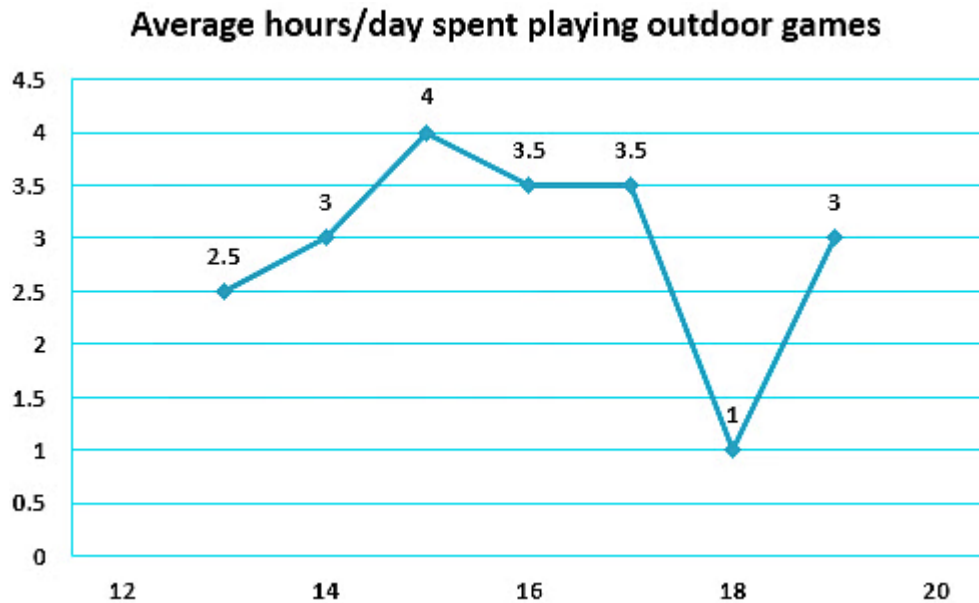
In which age do teenagers spend most number of hours playing outdoor games

- a. 15
- b. 16
- c. 17
- d. 13

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68. The line graph shows the average hours per day spent by teenagers in playing outdoors games. Study the diagram and answer the following questions.

(+2, -0.5)



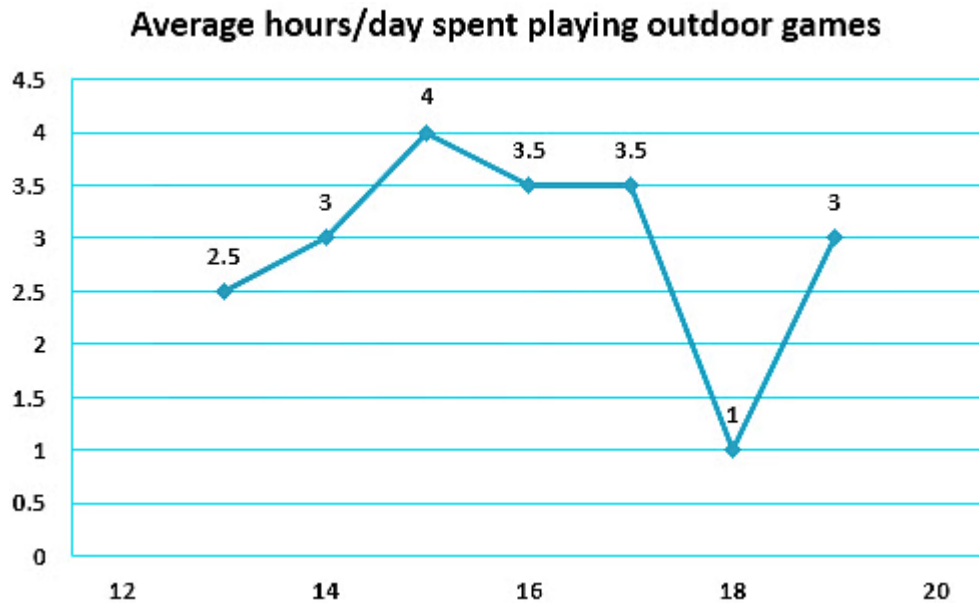
What is the ratio of hours per day spent in playing outdoor games by 13 year olds and 18 year olds?

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

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69. The line graph shows the average hours per day spent by teenagers in playing outdoors games. Study the diagram and answer the following questions.

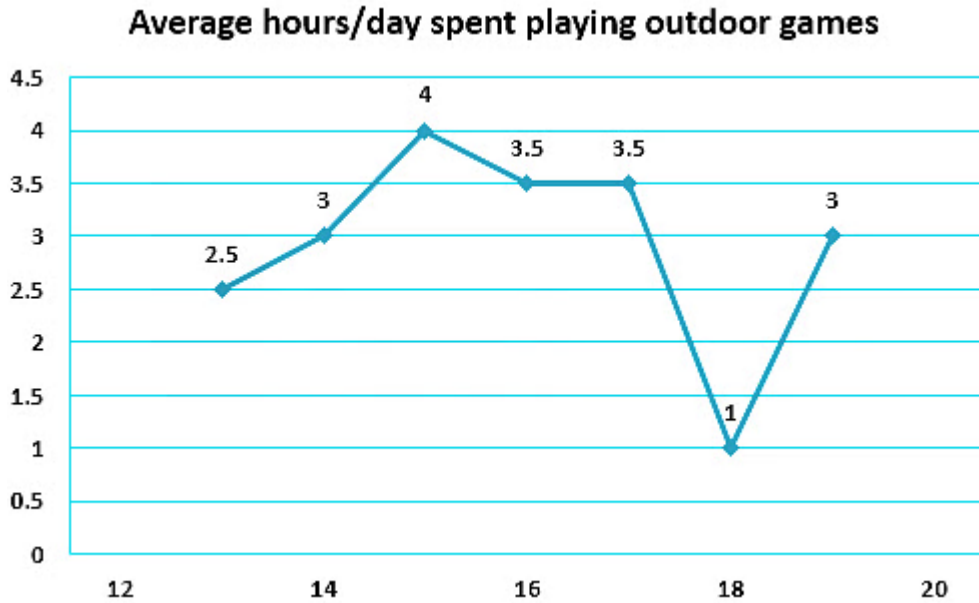
(+2, -0.5)



The number of hours per day spent in playing outdoor games is
 ----- more by 17 year old as compared to 14 year old.

- a. 14.28%
- b. 16.67%
- c. 12.65%
- d. 10.79%

70. The line graph shows the average hours per day spent by teenagers in playing outdoors games. Study the diagram and answer the following questions. (+2, -0.5)



How many hours does a 16 year old spend playing outdoor games in a week?

- a. 24.5
- b. 25.5
- c. 24
- d. 25

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71. The length and breadth of a rectangle are 21 cm and 20 cm respectively. Find its area (in cm^2). (+2, -0.5)

- a. 420
- b. 840
- c. 80
- d. 160

72. If the measure of the interior angle of a regular polygon is 100° greater than the measure of its exterior angle then how many sides does it have? (+2, -0.5)

- a. 10
- b. 12
- c. 9
- d. 15

73. The total surface area of a hemisphere is 4158 cm^2 . Find its diameter (in cm). (+2, -0.5)

- a. 21
- b. 84
- c. 42
- d. 63

74. What is the value of $(\frac{1}{3} + \operatorname{cosec} 30^\circ)$? (+2, -0.5)

- a. $(\sqrt{6} + 1)/\sqrt{3}$
- b. $7/3$
- c. $(4 + \sqrt{3})/2$
- d. $(\sqrt{3} + 1)/2$

75. In $\triangle DEF$ measure of angle E is 90° . If $\sin D = 15/17$, and $DE = 4$ cm, then what is the length (in cm) of side EF? (+2, -0.5)
- a. 8.5
 - b. 7.5
 - c. 5
 - d. 6

Prepp

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General Awareness

76. Which of the following is a function of money? (+2, -0.5)
- a. medium of exchange
 - b. store of value
 - c. unit of accounting
 - d. All options are correct.
-
77. The concept of 'Navratnas' was evolved in which of the following year's Union Budget? (+2, -0.5)
- a. 1990-91
 - b. 1999-2000
 - c. 1997-98
 - d. 1995-96
-
78. What is called the hot dry local winds blowing in the northern part of Alps (+2, -0.5) mountain?
- a. Foehn
 - b. Khamsin
 - c. Chinook
 - d. Sirocco
-

79. Ujjain is situated on the banks of which river? (+2, -0.5)

- a. Narmada
- b. Tawa
- c. Tapi
- d. Shipra

80. Buddhist texts have been mentioned in which of the following Ashoka's Inscriptions? (+2, -0.5)

- a. Dhauli
- b. Kalinga
- c. Jaugada
- d. Bhabru

81. Which of the following was the first thing that encouraged the Europeans for Indian business? (+2, -0.5)

- a. Muslin
- b. cotton clothes
- c. Spice
- d. Indigo

82. Bharhut is related to _____. (+2, -0.5)

- a. Islam
 - b. Buddhism
 - c. Jainism
 - d. Hinduism
-

83. Sri Lanka on 9 December, 2017 formally handed over the control of the southern deep sea port of Hambantota to which country for 99 year lease? (+2, -0.5)

- a. China
 - b. Pakistan
 - c. Japan
 - d. India
-

84. Which Indian origin actor was honoured with the 'Asian Game Changer Award-2017' by the Asia Society? (+2, -0.5)

- a. Nemko Katyal
 - b. Dev Patel
 - c. John Browne
 - d. Aziz Ansari
-

85. Who was the contemporary ruler of Emperor Asoka in Sri Lanka? (+2, -0.5)

- a. Mahasen

- b. Kasyapa
 - c. Tissa
 - d. Vijayabahu I
-

86. Isobars are atoms of different chemical elements that have _____. (+2, -0.5)

- a. Same atomic number but different mass number
 - b. Same mass number but different atomic number
 - c. Same mass number and same atomic number
 - d. Different mass number and different atomic number
-

87. Which of the following is based on the principle of nuclear fusion? (+2, -0.5)

- a. Atomic bomb
 - b. Hydrogen bomb
 - c. Both Atomic and Hydrogen bomb
 - d. No option is correct.
-

88. Gram Panchayat is composed of which of the following? (+2, -0.5)

- I. The ward panchs
- II. The sarpanch
- III. The district collector

Codes:

- a. Only I
 - b. Only II
 - c. Only I and II
 - d. All of the above
-

89. In Indian Parliamentary System, 'Member of Legislative Assembly (MLA)' are _____. (+2, -0.5)

- a. Nominated by Chief Minister of that state
 - b. Elected by the people
 - c. Elected by members of parliament
 - d. Nominated by President of India
-

90. The swollen bottom part of the carpel of a flower is called as _____. (+2, -0.5)

- a. Ovary
 - b. Style
 - c. Stigma
 - d. Anther
-

91. Which of the following is the correct decreasing order of intercellular space in various simple permanent tissues? (+2, -0.5)

- a. Parenchyma > Collenchyma > Sclerenchyma

- b. Sclerenchyma > Parenchyma > Collenchyma
 - c. Collenchyma > Parenchyma > Sclerenchyma
 - d. Parenchyma > Sclerenchyma > Collenchyma
-

92. In December 2017, which Ministry launched a pilot project 'Blue Flag'? (+2, -0.5)

- a. Ministry of Environment, Forest and Climate change
 - b. Ministry of Home Affairs
 - c. Ministry of Tourism
 - d. Ministry of Health and Family Welfare
-

93. What was the shape of the galaxy named A1689 B11 that existed 11 billion years ago? (+2, -0.5)

- a. No option is correct.
 - b. Spiral
 - c. Thin disc
 - d. Turbulent disc
-

94. In November 2017, a report titled 'Credit Suisse Global Wealth Report' was (+2, -0.5)

- a. \$ 10 Trillion
- b. \$ 5 Trillion
- c. \$ 1 Trillion

d. \$ 15 Trillion

95. Who is the singer and composer of official Anthem for “Bharat ke Veer” initiative? (+2, -0.5)

- a. Sukhwinder Singh
 - b. Kailash Kher
 - c. Sonu Nigam
 - d. Jagjit Singh
-

96. Find the work done (in J) when a charge of 24 C moves across a potential difference of 6 V. (+2, -0.5)

- a. 4
 - b. 72
 - c. 8
 - d. 144
-

97. When the vibrating object moves forward, it creates a region of high pressure in the medium called _____. (+2, -0.5)

- a. negation
- b. dilation
- c. relaxation
- d. compression

98. The _____ keeps the average temperature of the Earth fairly steady. (+2, -0.5)

- a. heliosphere
- b. biosphere
- c. photosphere
- d. atmosphere

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

- A) Netherlands won the 2017 Women's Cricket World Cup.
- B) Australia won the 2016–17 Men's FIH Hockey World League Final.
- C) Fan Zhendong won the Tennis 2017 US Open Men's Singles.

Codes:

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

100. In HTML, _____ attribute is used for merging of two or more adjacent rows. (+2, -0.5)

- a. COLSPAN
- b. ROWSPAN

c. CELLSPACING

d. CELLPADDING

Prepp

Your Personal Exams Guide

Answers

1. Answer: a

Explanation:

The correct answer is 3

★ Key Points

Reading the above sentence we find that:

- In the given sentence the word **permission** which is used is a noun.

★ Important Points

- Here the noun **permission** is used to describe another noun **limits**.
- This is not grammatically correct, as only an **adjective** can modify a **noun**.
- Therefore to modify the noun **limits** we should use an adjective.
- Therefore we should replace the noun **permission** with the adjective **permissible**
- Thus the error lies in the 3rd part of the sentence.

Therefore the correct answer is 3

The correct sentence will be: *Industries should regularly check if their machines are emitting smoke within **permissible** limits.*

2. Answer: b

Explanation:

The error is in 3). All = plural. Use **kinds** in place of **kind**.

3. Answer: a

Explanation:

The correct answer is **Infirm** .

★ Key Points

Reading the given sentence we find that it is talking about the old man.

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

- **confirm** : establish the truth or correctness.
- **infirm** : physically or mental weakness due to old age.
- **infer** : deduce or conclude from evidence and reasoning.
- **luxurious** : elegant, extremely comfortable, grand.

Thus from the given meaning, we find that the correct answer is **infirm** .

The correct sentence will be: *The old man was **infirm** and poor.*

4. Answer: b

Explanation:

The correct answer is **spent** .

★ Key Points

Reading the given sentence we find that:

- She did something with her money.
- From the context of the sentence, we understand that money can only be **spent** on things in a mall.
- All of the other options are grammatically and contextually incorrect.

Therefore the correct answer is **spent** .

Therefore the correct sentence will be: *She **spent** all her money at one shop in the mall.*

5. Answer: c

Explanation:

The correct answer is Atrocity .

★ Key Points

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

- Scurrility : abusing; insulting; offending.
- Atrocity : cruelty; offence.

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

Therefore the correct answer is Atrocity.

★ Additional Information

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

- **Godliness** : The quality of being religious.
- **Reverence** : Deep respect for someone or something.
- **Piety** : Devotion to God or religious practices.

6. Answer: c

Explanation:

The correct answer is **Sanguine** .

★ Key Points

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

- **Sanguine** : Optimistic or positive, especially in an apparently bad or difficult situation.
- **Buoyant** : Cheerful and optimistic.

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

Therefore the correct answer is **Buoyant** .

★ Additional Information

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

- **Plae** : Dull, colourless.
- **Vocalise** : Express in words.

7. Answer: c

Explanation:

The correct answer is Dying .

★ Key Points

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

- **Verdant** : Green with grass; lively.
- **Dying** : Cease to live, approaching death; dull.

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

Therefore the correct answer is **Dying** .

★ Additional Information

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

- Grassy : Covered with grass.
 - Lush : Full of vegetation.
-

8. Answer: d

Explanation:

The correct answer is **Tyro** .

★ Key Points

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

- **Tyro** : a beginner; an amateur.
- **Professional** : relating or belonging to a profession.

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

Therefore the correct answer is **Professional** .

★ Additional Information

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

- **Recruit** : To get someone to join something.
 - **Virgin** : A person with no experience in a particular activity.
-

9. Answer: b

Explanation:

The correct answer is **QPR** .

★ Key Points

Reading the given sentences we find that:

- **Mere** means **small** and is an **adjective** . So the next part of the sentence should start with a **noun** .
- Out of the given segments, **P** starts with the word **accomplished** which is a verb and cannot follow the adjective **mere** .
- Segment **P** cannot be the last one either as it ends with **single-minded** which is again an adjective.
- If segment **R** is considered as the starting segment then it will yield a sentence that is not contextually or grammatically coherent.
- Therefore segment **Q** can be the only starting segment that is contextually and grammatically correct.
- The adjective in part **P** should be followed by yet another **noun** .
- The adjective **single-minded** will be followed by the noun **commitment** making segment **R** the last part.

Therefore the correct answer is **QPR**.

The correct sentence will be: *Make in India is not a mere slogan but a mission to be accomplished by a single-minded commitment towards new processes.*

10. Answer: c

Explanation:

The sentence is in **simple past tense** (*wrote*). Thus, the sentence in passive voice will be of the form **was/were + past participle of write = written**. Option 2) *1984 was written by George Orwell* is the correct answer.

11. Answer: d

Explanation:

Are => were when we change it to reported speech. Option 4) *Gopal asked his friends whether they were angry* is the correct answer.

12. Answer: c

Explanation:

The correct answer is **Interruption**.

★ Key Points

Reading the given question we find that:

- The correctly spelt word is **Interruption**.
- **Interruption** : The act of interrupting i.e stop the **constant progress of something**.
- **Example** : The constant **interruptions** made the professor very angry.

Therefore the correct answer is **Interruption**.

13. Answer: c

Explanation: Your Personal Exams Guide

The correct answer is **efficiency**.

★ Key Points

Reading the given sentence we find that:

A **noun** is required to fill the gap.

From the given options we see that:

- **efficiently** is an adverb.
- **efficiencies** is a plural noun that is not required here.
- **efficient** which is an adjective.

Therefore the correct answer is **efficiency** which is a noun.

Efficiency : The state or quality of being **efficient** .

14. Answer: b

Explanation:

The correct answer is **then** .

★ Key Points

Reading the given sentence we find that:

- Here we are trying to state we will look at the brain and its counterparts.
- This is done as a consequence of a previous statement.
- Therefore we should use an adverb that means: **as a consequence; therefore**
- **Then** is an adverb which means as a consequence; therefore.
- Thus the correct answer for the blank is **then** .

The correct sentence will be: *We will, then, look upon the mind.*

15. Answer: d

Explanation:

The correct answer is **each** .

★ Key Points

Reading the given sentence we find that:

- **Counterparts** mean a person or thing that corresponds to or has the same function as another person or thing.
- When we are talking about members of a group and how they are related to each other we use **each** .

Your Personal Exams Guide

- Here in the given question, it is establishing that two or more things are **related to each other** as they are **counterparts**.

Therefore the correct answer is **each**.

16. Answer: d

Explanation:

The correct answer is **both**.

★ Key Points

Reading the given sentence we find that:

- We are talking about two things that act together as a **couple**.
- In such scenarios, we use **both**.
- **Both** is used for emphasis to refer to two people or things.
- Thus we find that **both** fits contextually and grammatically in the given blank.

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

Therefore the correct sentence will be: *in the other, **both** inextricably bound together.*

17. Answer: b

Explanation:

The correct answer is **significance**.

★ Key Points

Reading the given sentence we find that:

- A noun representing the quality should be used in the blank.

- **Significant** : Is an adjective, hence is not an appropriate fit.
- **Significantly** : Is again an adverb and cannot be used here.
- The noun **significance** can be both countable and uncountable.
- Therefore **significanes** is the again a wrong option.
- Hence, we can conclude that the correct option will be **significance** .

Thus the correct answer is **significance** .

18. Answer: d

Explanation:

The correct answer is **Deal with a problem when and if it arises** .

★ Key Points

Let's look at the meaning of the idiom

- **Cross that bridge when you come to it** : To deal with problems one by one as it arises.
- **Example** : We will start the project and cross the bridge when we come to it.

Thus from the given points, it is clear that the correct answer is **Deal with a problem when and if it arises** .

19. Answer: b

Explanation:

A little bird told me = said if you know who gave you the information being discussed but do not want to say who it was. Thus, Option 2) is the correct answer.

20. Answer: a

Explanation:

The correct answer is **Zealot** .

★ Key Points

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

- **Zealot** : A person who is fanatical and uncompromising in pursuit of their religious, political or other ideas.
- **Mezzo** : A female singer with a mezzo voice pitch.
- **Medial** : Situated in the middle.
- **Betwixt** : Between two people or things.

Thus from the given options it is clear that the correct answer is **Zealot** .

21. Answer: c

Explanation:

The correct answer is **Deliberation**

★ Key Points

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

- **Deliberation** : Long and careful consideration or discussion.
- **Example** : After a long Delibration the US declared war on Japan.

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

★ Additional Information

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

- **Vacuous** : Having or showing a lack of thought or intelligence.
- **Utter** : Complete; absolute.
- **Coherence** : The quality or state of being logical.

22. Answer: a

Explanation:

Husband have = grammatically incorrect. Rule out 4). Past tense => rule out 2) and 3). Option 1) *Had retired* is the correct answer.

23. Answer: d

Explanation:

Option 4) *No improvement* is the correct answer.

Was been and *had being* are grammatically incorrect phrases => ruled out.

She have = incorrect => ruled out.

24. Answer: c

Explanation:

The correct answer is CAB

★ Key Points

Reading the above sentence we find that:

- Compelled to which means forced to should be followed by a verb .
- Out of the given sentences, only C starts with a verb i.e call it an abomination .
- Therefore the correct answer should start with C which leads us to the option CAB .

Thus the correct answer is CAB .

The correct sentence will be: *I am compelled to call it an abomination despite being fully cognizant of the rich effects of all languages on one another.*

★ Additional Information

Let's look at the meaning of difficult words.

- Abomination : a thing that causes disgust or loathing.
- Cognizant : having knowledge or awareness.

25. Answer: a

Explanation:

The correct answer is **neolithic**.

★ Key Points

Reading the above question we find that:

- The correctly spelt word is **neolithic**.
- **Neolithic** : Relating or denoting the later part of the Stone Age.
- **Example** : The historians discovered a set of bones belonging to the **neolithic** age.

Therefore the correct answer is **neolithic**.

26. Answer: d

Explanation:

Here, Pattern is such that second word defines the category and the first word defines the example of that category i.e.

Apple : Fruit → Apple is a type of or example of fruit.

Let's check all the options.

Orange : Vegetable → Orange is an example of fruit but not vegetable.

Table : Chair → Table and Chair both are examples of furniture.

Fruit : Guava → Here the second word is the example of the first word.

Scooter : Vehicle → Scooter is an example or a type of vehicle.

Hence, Scooter : Vehicle is the correct alternative.

27. Answer: b

Explanation:

Here pattern is such that 2nd number is 27 more than the 1st number i.e.

$$39 : 66 \rightarrow 39 + 27 = 66.$$

$$\text{Similarly, } 57 : ? \rightarrow 57 + 27 = 84.$$

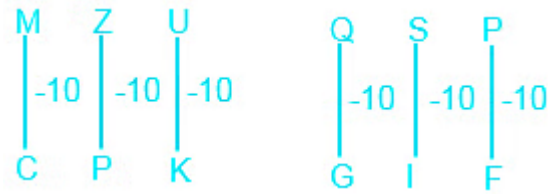
Thus, 84 is the correct alternative

28. Answer: b

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 here is as follows,



Hence, GIF is the correct alternative.

29. Answer: a

Explanation:

Here, Mercury, Mars and Venus are the planets of our solar system whereas Sun is the Star of our solar system.

Thus, Sun is the odd one.

30. Answer: b

Explanation:

Out of the given options, $47 - 41$ is odd one because in all other options 2nd term is 4 less than the 1st term i.e.

$$57 - 53 \rightarrow 57 - 4 = 53$$

$$67 - 63 \rightarrow 67 - 4 = 63$$

$$71 - 67 \rightarrow 71 - 4 = 67$$

But in $47 - 41 \rightarrow 47 - 4 = 43$ which is not equal to 41.

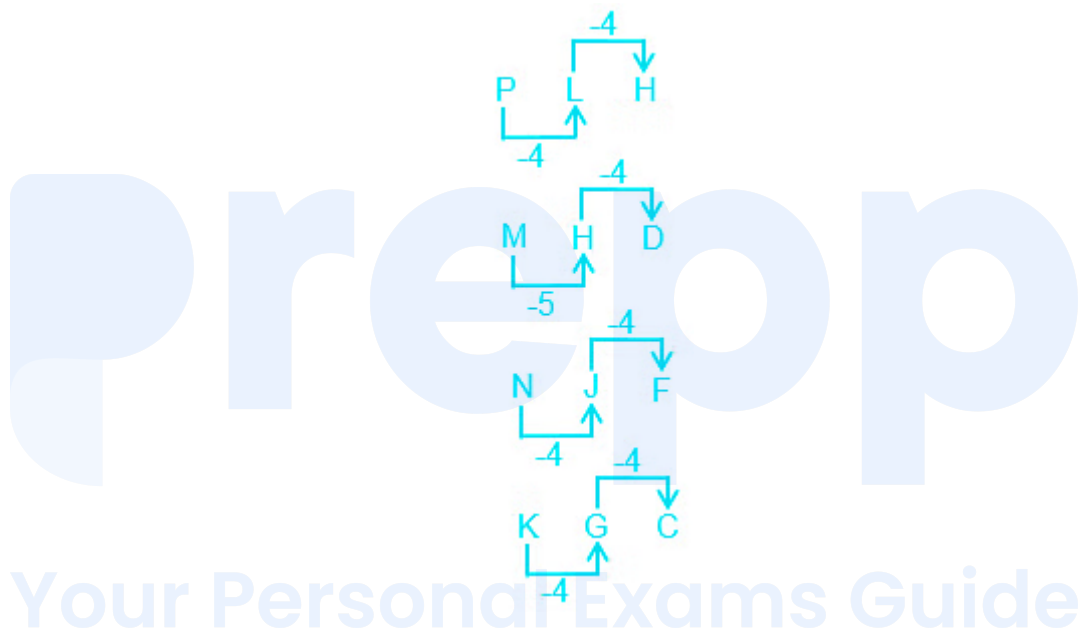
Thus, $47 - 41$ is odd one.

31. Answer: b

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

Here, it follows a pattern of -4 between two consecutive characters as shown below :



Hence, MHD is the odd one.

32. Answer: d

Explanation:

The dictionary sequence is :

Ea ch → Ea rly → Ea rn est → Ea rt h → Ea sily.

Thus, 2, 5, 4, 1, 3 will be the correct sequence.

33. Answer: b

Explanation:

The relation between the numbers is as follows,

$$14 \times 1 = 14$$

$$14 \times 1.5 = 21$$

$$21 \times 2 = 42$$

$$42 \times 2.5 = 105$$

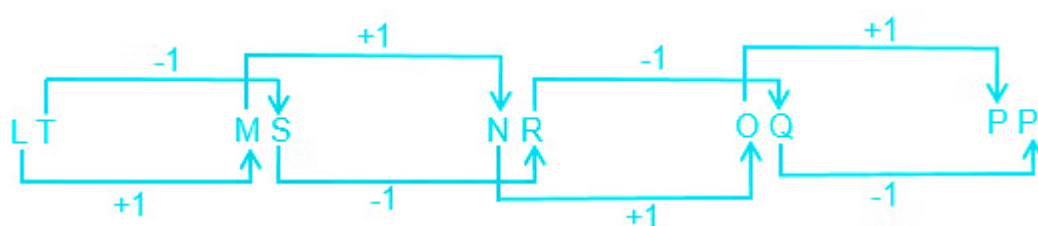
$$105 \times 3 = 315$$

Hence, the next number is 315.

34. Answer: d

Explanation:

The pattern is as follows,



Hence, the next term is PP.

35. Answer: b

Explanation:

1) Six persons P, A, V, K, J and C are sitting in a row facing north.

2) J is to the immediate left of K and is at one of the ends.



3) C is to the immediate left of V who is third to the right of P.



4) The only place left for A to sit is between P and C as shown in the diagram below.



Hence, P is to the immediate left of A

36. Answer: b

Explanation:

Let's check each option,

1) LINE → can be formed as R **ELIN** QUSHED.

2) QUITE → cannot be formed because there is no 'T' in RELINQUISHED.

3) RELIED → can be formed as **RELI** NQUISH **ED**.

4) RUN → can be formed as **RELI** NQ **UISHED**.

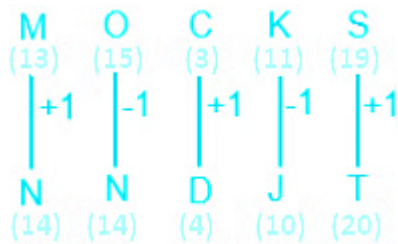
Hence, QUITE can't be formed from word RELINQUISHED.

37. Answer: b

Explanation:

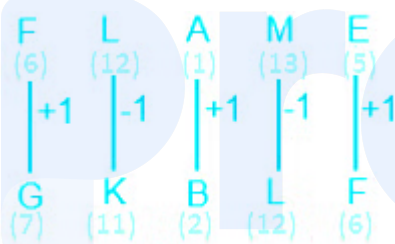
The pattern followed here is:-

MOCKS is coded as NNDJ



Similarly,

FLAME is coded as GKBLF



Hence, the correct answer is "GKBLF".

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38. Answer: a

Explanation:

The given equation is: $8 - 14 + 7 \times 10 \div 9 = ?$

Here ' $\div$ ' represents '+', ' $-$ ' represents ' $\times$ ', '+' represents ' $\div$ ' and ' $\times$ ' represents ' $-$ '. So let's replace the sign in the above equation.

$$8 - 14 + 7 \times 10 \div 9 \rightarrow 8 \times 14 \div 7 - 10 + 9 = 16 - 1 = 15$$

Hence, 15 is the correct alternative.

39. Answer: c

Explanation:

The given equation is : $16 \times 8 - 4 \div 9 + 14 = 37$

Let's check each option,

$$1) + \text{ and } \times \rightarrow 16 + 8 - 4 \div 9 \times 14 = 17.77 \neq 37$$

$$2) + \text{ and } \div \rightarrow 16 \times 8 - 4 + 9 \div 14 = 124.643 \neq 37$$

$$3) \div \text{ and } - \rightarrow 16 \times 8 \div 4 - 9 + 14 = 37 = 37$$

$$4) - \text{ and } + \rightarrow 16 \times 8 + 4 \div 9 - 14 = 114.44 \neq 37$$

Hence, by interchanging $\div$ and $-$ the equation will be correct.

40. Answer: b

Explanation:

The pattern here is as follows, two numbers are given separated by ' Ω '. We get the answer by dividing the first number by second number and putting a negative (minus) sign to the answer.

Let A and B are two numbers such that $A \Omega B$ then

$$A \Omega B = -(A \div B) \text{ i.e.}$$

$$30 \Omega 6 = -(30 \div 6) = -5$$

$$80 \Omega 2 = -(80 \div 2) = -40$$

$$20 \Omega 4 = -(20 \div 4) = -5$$

$$\text{Similarly, } 70 \Omega 2 = -(70 \div 2) = -35.$$

Hence, -35 is the correct alternative.

41. Answer: c

Explanation:

The pattern here is the letter 'X' which is to the immediate right of letter 'Y' is converted to 'Y' in every step and hence increasing the number of letter 'Y' in every step i.e.

Y XXXXXX, YY XXXXX, YYY XXXX, YYYY XXX, YYYYY XX, YYYYYYX.

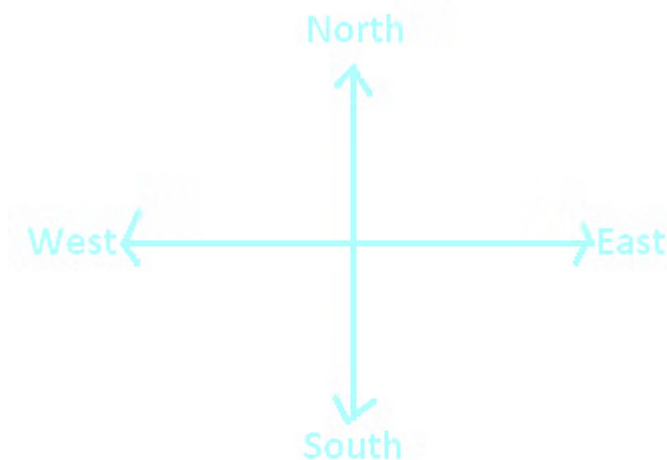
Hence, YYYYYYX is the correct alternative.

42. Answer: c

Explanation:

Given → The diagram below shows the path followed by the cyclist,

- 1) A cyclist cycles 3.5 km West



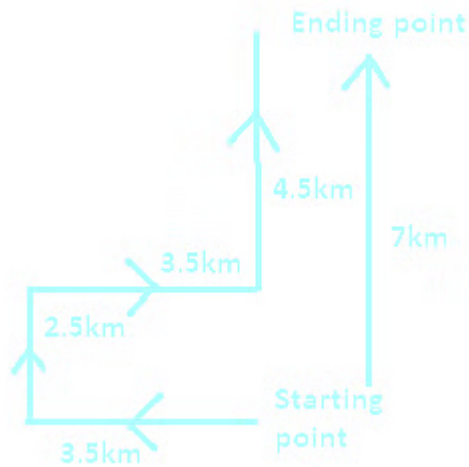
2) Then turns North and cycles 2.5 km North



3) Then turns to his right and cycles 3.5 km



4) Then turns North and cycles 4.5 km.



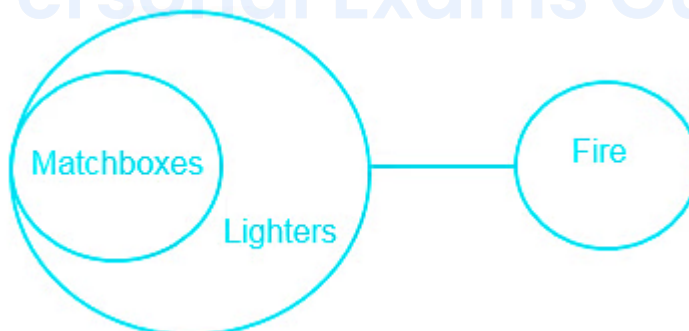
As can be seen clearly from the above, the distance from the start to the end is $4.5 + 2.5 = 7$ km and the end point is in the North direction with respect to the start point.

Hence, the correct answer is "7 km North".

43. Answer: a

Explanation:

The least possible Venn diagram for the given statements is as shown below:-



Conclusions:

I. No fire are matchboxes → **Follows** (It is definitely true as no fire can be matchboxes).

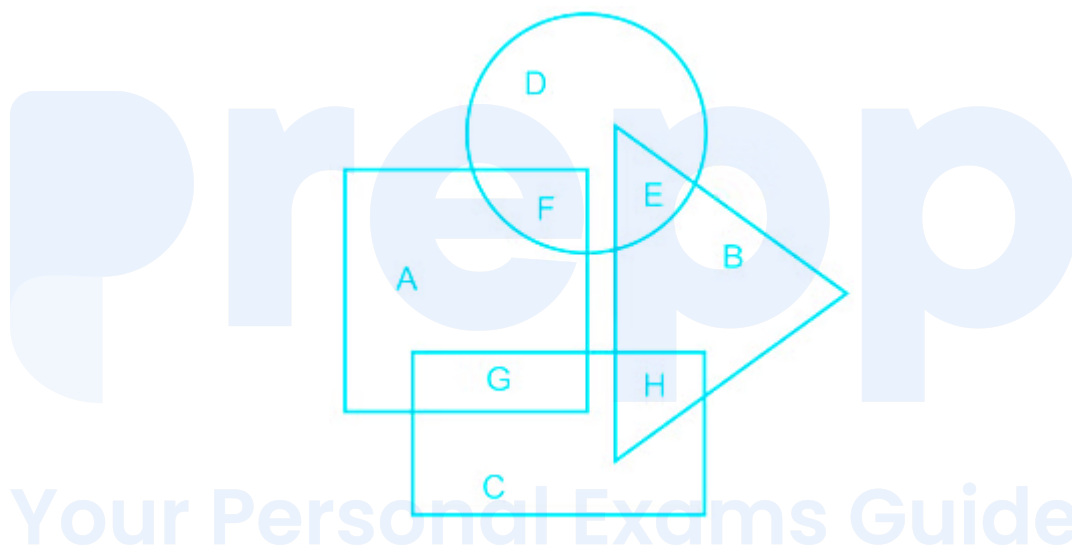
II. All matchboxes are fire → Doesn't follow (As no direct relation is given between matchboxes and fire).

Hence, the correct answer is **"Only conclusion I follows"**.

44. Answer: d

Explanation:

Here, rectangle represents Paramedics, circle represents Equestrians, triangle represents Photographers and square represents Fathers.



Clearly, Paramedics who are Photographers is represented by the intersection of rectangle and triangle i.e. H.

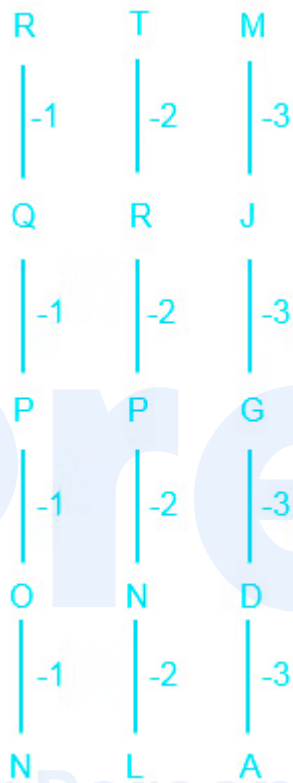
Hence, H is the correct alternative.

45. 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 is as follows,



Hence, the correct answer is "NLA".

46. Answer: d

Explanation:

The pattern followed here is:-



Hence, the correct answer is "7".

47. Answer: d

Explanation:

Out of the given options, (19, 27, 35) is odd one because in all other options 2nd number is nine more than the 1st number and 3rd number is sixteen more than the 1st number i.e.

$$(9, 18, 25) \rightarrow 9 + 9 = 18 \text{ and } 9 + 16 = 25.$$

$$(7, 16, 23) \rightarrow 7 + 9 = 16 \text{ and } 7 + 16 = 23.$$

$$(26, 35, 42) \rightarrow 26 + 9 = 35 \text{ and } 26 + 16 = 42.$$

But in (19, 27, 35) $\rightarrow 19 + 9 = 28$ which is not equal to 27 and $19 + 16 = 35$.

Thus, (19, 27, 35) is odd one.

48. Answer: d

Explanation:

The mirror image of the question will be:



Hence, we can say that option 4 is the correct mirror image of the given question.

49. Answer: c

Explanation:

If we consider face with "



" as centre and fold its surrounding faces inside, we find that face with "



" and "



" are opposite to each other, face with "



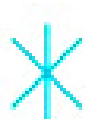
" and "



" are opposite to each other and face with "



" and "



" are opposite to each other.

Here, cube in option 3 of the answer figure cannot be made based on the unfolded cube in the question because face with "



" and "



" are opposite to each other which is shown adjacent in option 3.
Hence, Option 3 is the correct alternative.

50. Answer: d

Explanation:

Let's check all the options,

1) 43, 66, 33, 55 → CPEX

2) 34, 76, 11, 87 → HQMU

3) 41, 79, 31, 95 → KSIV

4) 77, 42, 30, 41 → PEAK

Thus, the correct option is 77, 42, 30, 41.

51. Answer: b

Explanation:

Let the three consecutive numbers be x , $(x + 1)$, $(x + 2)$

Given $x^2 + (x + 1)^2 + (x + 2)^2 = 2702$

$\Rightarrow x^2 + x^2 + 2x + 1 + x^2 + 4x + 4 = 2702$

$$\Rightarrow 3x^2 + 6x + 5 - 2702 = 0$$

$$\Rightarrow 3x^2 + 6x - 2697 = 0$$

$$\Rightarrow x^2 + 2x - 899 = 0 \text{ (Dividing the above equation throughout with 3)}$$

$$\Rightarrow x^2 + 31x - 29x - 899 = 0$$

$$\Rightarrow x(x + 31) - 29(x + 31) = 0$$

$$\Rightarrow (x + 31)(x - 29) = 0$$

$$\Rightarrow (x + 31) = 0 \text{ or } (x - 29) = 0$$

$$\Rightarrow x = -31 \text{ or } x = 29 \text{ (Considering only positive value for the number, } x = 29)$$

The numbers are 29, 30, 31

$\therefore$ The middle number is 30

Tip: We can find the answer quickly by putting the value of x in the following expression from given options.

Let the three consecutive numbers be $(x - 1)$, x , $(x + 1)$

$$(x - 1)^2 + x^2 + (x + 1)^2 = 2702$$

52. Answer: a

Explanation:

Total laps to run = 7

Laps run by Anuj = $1\frac{2}{3} = (5/3)$

Remaining laps to run = $7 - (5/3) = [(7 \times 3) - 5]/3 = (21 - 5)/3 = (16/3)$

$\therefore$ Required answer = $(16/3)$

53. Answer: c

Explanation:

Short trick:

$$\because u + v = 10 \text{ and } uv = 16$$

$\Rightarrow u = 8$ and $v = 2$ satisfy the given condition

$$\therefore (u^2 - v^2)/uv = (8^2 - 2^2)/16 = 15/4$$

Detailed solution:

We know that $(u - v)^2 = (u + v)^2 - 4uv$

Substituting the values, we get $(u - v)^2 = (10)^2 - (4 \times 16)$

$$\Rightarrow (u - v)^2 = 100 - 64 = 36$$

$$\Rightarrow (u - v) = \sqrt{36} = 6$$

Given expression can be written as $(u^2 - v^2)/uv = [(u + v)(u - v)]/uv$

Substituting the values, we get $(10 \times 6)/16 = 60/16 = 15/4$

$$\therefore \text{Required Value} = (15/4)$$

54. Answer: b

Explanation:

$$x^2 + y^2 + z^2 - 8x + 6y - 4z + 29 = 0$$

$$\Rightarrow x^2 - 8x + 16 + y^2 + 6y + 9 + z^2 - 4z + 4 = 0$$

$$\Rightarrow (x - 4)^2 + (y + 3)^2 + (z - 2)^2 = 0$$

So, putting the values of $x = 4$, $y = -3$ and $z = 2$ satisfies the above equation

$$\therefore z(x + y) = 2 \times (4 + (-3)) = 2$$

55. Answer: a

Explanation:

From the formula, if there are two circles of radius r_1 and r_2 and distance between their centers is 'd', then the length of the common tangent $MN = \sqrt{d^2 - (r_1 - r_2)^2}$

56. Answer: a

Explanation:

In $\triangle PNB$ and in $\triangle PMA$

$$\triangle PNB \sim \triangle PMA$$

$$\text{So, } PN/PM = NB/MA = PB/PA$$

$$\Rightarrow PN/PM = r_2/r_1 = PB/PA$$

$$\text{So, } PA/PB = r_1/r_2$$

57. Answer: d

Explanation:

$\Rightarrow$ Let the side of the square be 100 cm

$$\Rightarrow \text{Area of the square} = 100 \times 100 = 10000 \text{ cm}^2$$

⇒ As side of the square is increased by 6%, the new value of side = $100 + (6\% \text{ of } 100)$
 $= 100 + 6 = 106 \text{ cm}$

⇒ New area of the square = $106 \times 106 = 11236 \text{ cm}^2$

⇒ Percentage increase in area = $\left[\frac{(\text{Final Area} - \text{Actual Area})}{\text{Actual Area}} \right] \times 100\%$

⇒ $\left[\frac{(11236 - 10000)}{10000} \right] \times 100\% = (1236/100)\% = 12.36\%$

∴ Required Percentage = 12.36%

58. Answer: c

Explanation:

Given ratio of income of P : Q = 5 : 3, Q : R = 5 : 2

⇒ In both the ratios, the common term is 'Q'. Make the value with respect to 'Q' same in both the ratio

⇒ Multiply both numerator and denominator on other side of the ratio (P: Q) with 5 and of ratio (Q: R) with 3, we get

⇒ P: Q = $(5 \times 5) : (3 \times 5)$, Q: R = $(5 \times 3) : (2 \times 3)$

⇒ P: Q = 25 : 15, Q : R = 15 : 6

⇒ Combining both the ratios we get, P : Q : R = 25 : 15 : 6

⇒ Let the incomes be 25x, 15x, 6x

⇒ From the condition, $\frac{1}{4} (25x) = 500 + 6x$

⇒ $(25x/4) - 6x = 500$

⇒ $(25x - 24x)/4 = 500$

⇒ $(x/4) = 500$

⇒ $x = 500 \times 4 = \text{Rs. } 2000$

$$\therefore Q's \text{ income} = 15 \times 2000 = \text{Rs. } 30000$$

59. Answer: c

Explanation:

Let the initial quantity of ink and water in the mixture be $8a$ and $5a$ respectively

When 24 litres of water is added to the mixture, then the new ratio becomes $8 : 11$

$$\Rightarrow [8a / (5a + 24)] = 8/11$$

$$\Rightarrow (8a \times 11) = 8 \times (5a + 24)$$

$$\Rightarrow 88a = 40a + 192$$

$$\Rightarrow 88a - 40a = 192$$

$$\Rightarrow 48a = 192$$

$$\Rightarrow a = (192/48) = 4$$

$$\therefore \text{Quantity of water in the new mixture} = (5 \times 4) + 24 = 44$$

60. Answer: a

Explanation:

Let the three numbers be a, b, c

Given the average of the 'a and 'b' is 37 more than the average of 'b' and 'c'

$$\Rightarrow [(a + b)/2] = 37 + [(b + c)/2]$$

$$\Rightarrow [(a + b)/2] = [74 + b + c]/2$$

$$\Rightarrow (a + b) = 74 + b + c$$

$$\Rightarrow a - c = 74$$

$$\therefore \text{Required Difference} = 74$$

61. Answer: c

Explanation:

Given:

A certain sum of money becomes 4 times of itself in 30 years

Concept used:

Amount - Principal = Simple interest

Calculation:

$$\text{SI for 30 years} = 4P - P = 3P$$

$$\text{Then, SI for 10 years} = P$$

$$\text{Then after 10 years, amount} = P + P = 2P$$

$\therefore$ After 10 years amount will double itself.

62. Answer: b

Explanation:

Case 1:

Let the cost price be 'C'

Since the man sold the article at a profit of 35%

$$\Rightarrow \text{Selling Price (S)} = \text{Cost Price} \times (1 + \text{Profit\%}) = C \times (1 + 35\%) = 1.35C$$

$$\Rightarrow S = 1.35C \quad \text{----- (Equation 1)}$$

Case 2:

In case the cost price is 15% less = $C - (15\%C) = C - 0.15C = 0.85C$

$$\Rightarrow \text{Selling Price} = S - 32$$

$$\Rightarrow \text{Selling Price} = \text{Cost Price} \times (1 + \text{Profit}\%)$$

$$\Rightarrow S - 32 = 0.85C \times (1 + 40\%) \quad \text{----- (Equation 2)}$$

Substituting the value of 'S' from Equation 1 in Equation 2, we get

$$\Rightarrow 1.35C - 32 = 0.85C (1.4)$$

$$\Rightarrow 1.35C - 32 = 1.19C$$

$$\Rightarrow 1.35C - 1.19C = 32$$

$$\Rightarrow 0.16C = 32$$

$$\Rightarrow C = 32/0.16 = 200$$

$\therefore$ Initial Cost price = 200

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63. Answer: c

Explanation:

We know that Selling Price = $(1 - \text{Discount \%}) \times \text{Marked Price}$

Given Discount = 28%

$$\Rightarrow \text{Selling Price} = (1 - 28\%) \times 1400$$

$$\Rightarrow \text{Selling Price} = (1 - 0.28) \times 1400$$

$$\Rightarrow \text{Selling Price} = 0.72 \times 1400$$

⇒ Selling Price = 1008

Profit = (SP - CP) = (1008 - 700) = Rs. 308

∴ Profit = Rs. 308

64. Answer: c

Explanation:

⇒ To find the value of $\sqrt{5/6}$ (Multiply the numerator and denominator with 6 we get

$$\sqrt{(5 \times 6)/(6 \times 6)} = (1/\sqrt{306})$$

$$\Rightarrow (1/6) \times 5.477 = 0.913$$

∴ Required value = 0.913

65. Answer: c

Explanation:

Let us denote Vijay, Puneet, and Sachin with 'V', 'P', 'S'

Given Vijay can do work in 8 hours

$$\Rightarrow V\text{'s one-hour work} = (1/8) \quad \text{---- (Equation 1)}$$

$$\Rightarrow (V + P)\text{'s one hours work together} = (1/6) \quad \text{---- (Equation 2)}$$

$$\Rightarrow (P + S)\text{'s one hours work together} = (1/4) \quad \text{---- (Equation 3)}$$

$$\Rightarrow \text{From Equation 1 and Equation 2, } P\text{'s one-hour work} = (1/6) - (1/8) = (1/24)$$

$$\Rightarrow \text{Substituting } P\text{'s one-hour work in Equation 3 we get, } (1/4) - (1/24) = (5/24)$$

⇒ Sachin would complete $(5/24)$ of the work in 1 hours

⇒ To complete the entire work, Sachin would require $(24/5)$ hours

∴ Required number of hours = $(24/5)$

★ Alternate Method



Total Unit of Work = 48 units

Vijay efficiency in 1 Hour = 6 units

Vijay + Puneet efficiency in 1 Hour = 8 units

Puneet efficiency in 1 Hour = $8 - 6 = 2$ units

Sachin efficiency in 1 Hour = $12 - 2 = 10$ units

Sachin can finish work in

⇒ $48/10$

⇒ $24/5$ hours

∴ Sachin can finish work in $24/5$ hours.

66. Answer: b

Explanation:

⇒ Let the total distance covered by the train 'S' be 'd', Then the distance covered by train 'R' be $(90 + d)$

⇒ When they meet for the first time, they both have travelled for the same time, so the Speed is directly proportional to Distance

$$\Rightarrow S_1/S_2 = D_1/D_2$$

$$\Rightarrow (35/42) = d/(d + 90)$$

$$\Rightarrow (35/42) = d/(d + 90)$$

⇒

$$\Rightarrow 5 \times (d + 90) = 6d$$

$$\Rightarrow 5d + 450 = 6d$$

$$\Rightarrow d = 450$$

$$\Rightarrow \text{Distance between S and R} = 450 + (450 + 90)$$

$$\therefore \text{Required Distance} = 990$$

Alternative:

$$\text{Difference in speed between 2 trains} = 42 - 35 = 7 \text{ km/hr}$$

Since train 2 has covered 90 kms more before they meet.

$$\text{So, total time taken to cover 90 km} = 90/7 = 12.857 \text{ hours}$$

$$\text{Distance covered by train 1 before they meet} = 12.857 \times 35 = 450 \text{ km}$$

$$\text{Distance covered by train 2 before they meet} = 450 + 90 = 540 \text{ km}$$

$$\text{So total distance between S and R} = 450 + 540 = 990 \text{ km}$$

67. **Answer: a**

Explanation:

From the graph the highest average hours per day spent is 4 which is corresponding to the teenager whose age is 15 ('4' lies between the teenagers of age 14 and 16)

68. Answer: b

Explanation:

⇒ Hours per day spent by 13 year old in playing outdoor games = 2.5

⇒ Hours per day spent by 18 year old in playing outdoor games = 1

⇒ Ratio = $2.5 : 1 = 25 : 10 = 5 : 2$

∴ Required Ratio = 5 : 2

69. Answer: b

Explanation:

⇒ Hours per day spent by 17 year old in playing outdoor games = 3.5

⇒ Hours per day spent by 14 year old in playing outdoor games = 3

⇒ Percentage change = $[(3.5 - 3)/3] \times 100\% = (0.5/3) \times 100\% = (50/3)\% = 16.67\%$

∴ Required Percentage = 16.67%

70. Answer: a

Explanation:

⇒ Hours per day spent by 16 year old in playing outdoor games = 3.5

⇒ Hours spent in a week = $3.5 \times 7 = 24.5$

∴ Number of hours spent in the week = 24.5

71. Answer: a

Explanation:

Given Length and Breadth of the rectangle are 21 cm and 20 cm respectively

$$\Rightarrow \text{Area of the Rectangle} = \text{Length} \times \text{Breadth} = 21 \times 20 = 420 \text{ cm}^2$$

$$\therefore \text{Required Area} = 420$$

72. Answer: c

Explanation:

Formula used:

Interior angle of a Regular Polygon = $(n - 2) \times \frac{180}{n}$ [Where 'n' is the number of sides of polygon]

Exterior angle of a Regular Polygon = $\frac{360}{n}$ [Where 'n' is the number of sides of polygon]

Calculation:

According to the question,

$$\Rightarrow (n - 2) \times \frac{180}{n} = 100 + \frac{360}{n}$$

$$\Rightarrow (n - 2) \times 180 = 100n + 360$$

$$\Rightarrow 180n - 360 = 100n + 360$$

$$\Rightarrow 180n - 100n = 360 + 360$$

$$\Rightarrow 80n = 720$$

$$\Rightarrow n = 720/80 = 9$$

$\therefore$ Number of sides = 9.

73. Answer: c

Explanation:

Formula for Total surface area of a hemisphere = $3\pi R^2$ (where R is the radius)

$$\Rightarrow 3 \times (22/7) \times R^2 = 4158$$

$$\Rightarrow R^2 = 4158 \times (7/22) \times (1/3)$$

$$\Rightarrow R^2 = 4158 \times (7/22) \times (1/3)$$

$$\Rightarrow R^2 = 441$$

$$\Rightarrow R = \sqrt{441} = 21$$

$$\text{Diameter} = 2R = 2 \times 21 = 42$$

$$\therefore \text{Required Diameter} = 42$$

74. Answer: b

Explanation:

We know that $\operatorname{cosec} 30^\circ = 2$

$$\text{Value of } (1/3 + \operatorname{cosec} 30^\circ) = (1/3) + 2 = (7/3)$$

$$\therefore \text{Required Value} = (7/3)$$

75. Answer: b

Explanation:

We know that $\sin D = \text{Opposite/hypotenuse} = DE/DF = 15/17$

Let the sides EF and DF be $15x$ and $17x$ respectively

For the right-angled triangle, as per Pythagoras theorem, $EF^2 + ED^2 = DF^2$

$$\Rightarrow ED^2 + (15x)^2 = (17x)^2$$

$$\Rightarrow ED^2 = 289x^2 - 225x^2 = 64x^2$$

$$\Rightarrow ED = \sqrt{64x^2} = 8x$$

Given $ED = 8x = 4 \text{ cm}$

To find the value of $EF = 15x = 15 \times (4/8) = 7.5 \text{ cm}$

$\therefore$ Required value = 7.5 cm

76. Answer: d

Explanation:

The correct answer is All options are correct.

★ Key Points

- The function of Money is :
 - Medium of exchange
 - Unit of account
 - Store of value
- Medium of Exchange : When money is used to intermediate the exchange of goods and services , it performs a function of a medium of exchange.
- Unit of Account : It is a standard unit of measurement of the market value of goods, services, and other transactions.
 - It is a standard of relative worth and deferred payment and is a necessary prerequisite for the formulation of commercial agreements that involve debt .

- Store of Value : When the money is reliably saved, stored, and retrieved it acts as a store of value.
-

77. Answer: c

Explanation:

In 1997, govt gave the status of Navaratna to 9 Public Sector enterprises (PSEs) giving them greater autonomy to compete in global market.

Conditions to get Navaratna status:

- Company must score at least 60 out of 100 on various parameters like net profit, net worth, total men power, cost of production etc.
 - Company must have status of miniratna
 - Company should have at least four independent directors on its board.
 - Currently there are total 17 companies having status of Navratna.
-

78. Answer: a

Explanation:

Major local winds in the world:-

Local winds	Place
Chinook	The Rockies mountain
Foehn	The Alps
Khamsin	Egypt
Sirocco	Sahara to Mediterrean sea
Bora	Hungary to North Italy
Mistral	The Alps and France
Blizzard	Tundra region

79. Answer: d

Explanation:

Major rivers and cities on their bank:-

Yamuna	Agra,
Ganga	Haridwar, bhagalpur, kanpur, patna, varanasi
Chambal	Kota, gwalior
Tapi	Surat,
Shipra	Ujjain
Narmada	Jabalpur, vadodara, bharuch
Jhelum	Srinagar
Krishna	Vijaywada, sangli,

80. Answer: d

Explanation:

Buddhist texts were initially passed on orally by monks, but were later written down and composed as manuscripts in various Indo-Aryan languages which were then translated into other local languages as Buddhism spread. They can be categorized in a number of ways.

- The Western terms "scripture" and "canonical" are applied to Buddhism in inconsistent ways by Western scholars: for example, one authority refers to

"scriptures and other canonical texts", while another says that scriptures can be categorized into canonical, commentarial and pseudo-canonical.

- Buddhist traditions have generally divided these texts with their own categories and divisions, such as that between buddhavaacana "word of the Buddha," many of which are known as "sutras," and other texts, such as shastras (treatises) or Abhidharma.

81. Answer: c

Explanation:

In 13th and 14th century, Europeans became fond of spices and were importing from middle east and arabian countries.

- In mid 15th century after the fall of constantinople to the Turks, land route to india was permanently closed, which led europeans to find sea route to india.
- At that time demand of indian spices was at peak and portugese were first europeans to find sea route to india.
- Spices were the first things that portuguese started to import from india. Later on indigo, saltpeter, raw silk etc.

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82. Answer: b

Explanation:

Bharhut is related to its Bharhut sculpture of the shunga period (mid 2nd century B.C.E.).

★ Key Points

- Bharhut stupa was initially built by Ashoka and was later improvised by Sungas.
- The bharhut stupa represents the aniconic phase of Buddhist art. Buddha has been represented in the form of symbols.

★ Additional Information

- **Jainism**: Jainism is one of the three oldest religions in India, which has its roots in at least the middle of the first century BC. Even today it is an integral part of Indian culture. Jainism teaches that the path of enlightenment causes non-violence and as much harm to living things (including plants and animals) as possible.
- **Hinduism**: Hinduism, the major world religion originating in the Indian subcontinent and incorporating many and different systems of philosophy, belief, and ritual.
- **Islam**: Islam in the 7th century AD, the major world religion promulgated by the Prophet Muhammad in Arabia. Allah is seen as the only God - the creator of the world, the constant, and the connective.

83. Answer: a

Explanation:

Sri lankan P.M. Ranil Wickremesinghe attended a special event to mark the handover, formally described as a Concession agreement.

- Hambantota International Port group and Hambantota international port service, two new companies setup by china merchants port holdings company and sri lanka port authority will own the port.
- China as part of its Belt and Road initiative, is interested in expanding its footprint in Indian Ocean.

84. Answer: b

Explanation:

Slumdog Millionaire actor Dev Patel was honoured with the Asian Game Changer Award 2017 by the Asian Society for making a transformative and positive difference

for the future of Asia and the world.

- The other Asian Game Changer awardees of 2017 are Tadashi Yanai, the founder of clothing retailing chain UNIQLO; Mongolian Eagle huntress Aisholpan Nurgaiv and Afghan rapper Sonita Alizadeh.

85. Answer: c

Explanation:

Tissa (Devanampiya Tissa) was the contemporary ruler of Ashoka in Sri Lanka.

- After adopting Buddhism, Ashoka spread Buddhism in nine other countries along with Sri Lanka.

86. Answer: b

Explanation:

The correct answer is Same mass number but different atomic number.

★ Key Points

- Isobars : The nuclei which have the same mass number (A) but a different atomic number (Z) are called isobars .
- Examples of Isobars are $^{14}_6\text{C}$, $^{14}_7\text{N}$
 - From above it is clear that the nuclei which have the same mass number (A) but a different atomic number (Z) are called isobars .
 - Isobars occupy different positions in the periodic table so all isobars have different chemical properties, but the same physical properties .

★ Additional Information

- Isotopes : The atoms of an element having the same atomic number but a different mass number are called isotopes .

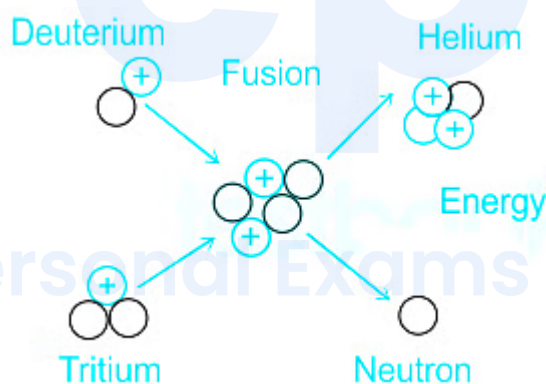
- All isotopes have the same chemical properties .
- Isotones : The nuclei having an equal number of neutrons are called isotones . For them both the atomic number (Z) and mass number (A) are different , but the value of (A – Z) is the same .

87. Answer: b

Explanation:

Nuclear fusion is a reaction in which two or more atomic nuclei come closer enough to form one or more different atomic nuclei and sub atomic particles(neutrons or protons).

- Hydrogen bomb is an immensely powerful bomb whose destructive power comes from the rapid release of energy during the nuclear fusion of isotopes of hydrogen (deuterium and tritium), using an atom bomb as a trigger.



88. Answer: c

Explanation:

Gram panchayat is the grassroots level of panchayat raj formalized local self-governance system in India.

- Gram Panchayat consists of a village or a group of villages divided into smaller units called "Wards".
- Each ward selects or elects a representative who is known as the **Panch** or **ward member**.
- The members of the Gram Sabha elect the ward members through a direct election.
- The **Sarpanch** or the president of the Gram Panchayat is elected by the ward members as per the State Act.
- The Sarpanch and the Panch are elected for a period of five years.
- Gram Panchayat is governed by the elected body and administration.
- The secretary is normally in charge of the administrative duties of the Gram Panchayat.

Thus, we can conclude that **Gram Panchayat is composed of Ward Panch and Sarpanch.**

89. Answer: b

Explanation:

In Indian Parliamentary System, Members of Legislative Assembly are elected by the people by voting.

They are elected for a term of 5 years.

90. Answer: a

Explanation:

Concept:

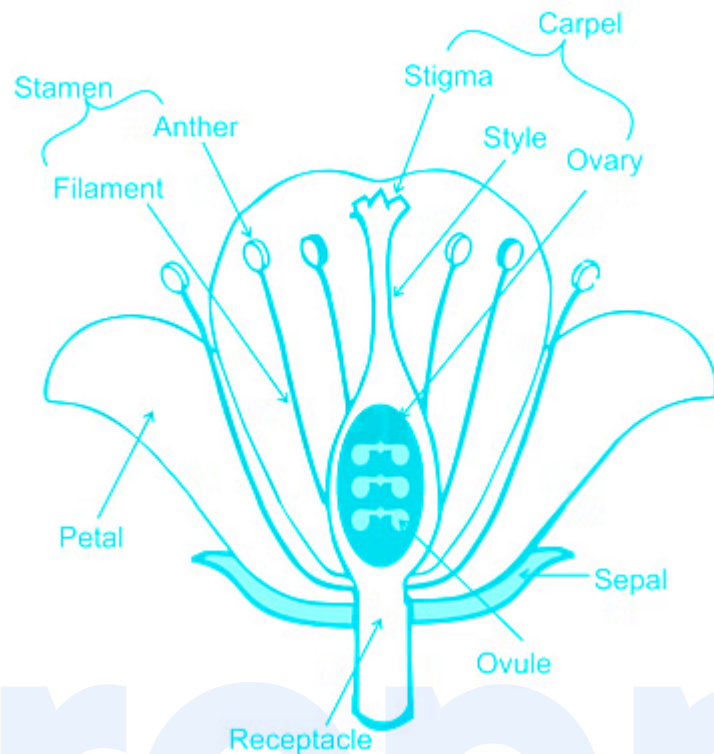
About Plant Reproduction :

- Sexual Reproduction is defined as the production of a (New organism) from Two-parents by making use of their (Gametes or Sex cells) . Plants also have Male and Female sex organs are carried within the (Flower and the Seeds which are inside a Fruit) .
- These plants are called (Angiosperms or Flowering plants) as they reproduce by the Sexual reproduction method.
- Most of the plants contain Reproductive organs of both (Males and Females) in the flowers.

Parts of a flower and their functions:

- Sepals : Protect the unopened flower
- Petals : Maybe brightly colored to attract insects
- Stamens: The male parts of the flower (each consists of an anther held up on a filament)
- Anthers: Produce male sex cells (pollen grains)
- Carpel : Female reproductive part of the flower which consists of ovules (inside which the egg cells ultimately form), ovary, style, and stigma.
- Stigma: The top of the female part of the flower which collects pollen grains
- Ovary: Produces the female sex cells (contained in the ovules)
- Nectary: Produce a sugary solution called nectar, which attracts insect

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Explanation:

The swollen bottom part of flower is Carpel.

- The (Male organ part) of a flower is called the (Stamen) and the (Female organ part) of a flower is called (Carpel). It helps in making the (Male Gametes) of the plant and that is present in Pollen grains.
- These Pollen Grains helps in making (Female Gametes or Egg cells) of the plant and are present in Ovules. The (Male Gametes) fertilize the (Female Gametes) .
- The fertilized (Egg cells) grow in Ovules and become Seeds.
- When germinated , these Seeds started growing as (new Plants) .

91. Answer: a

Explanation:

The correct answer is Parenchyma > Collenchyma > Sclerenchyma.

★ Key Points

- **Simple Permanent Tissue** is also known as homogenous tissues.
- They are made up of a single cell type, usually with the same origin, structure, and function.
- **Simple permanent tissue is further classified into three types :**
 - **Parenchyma** -
 - It is composed of living cells that are thin-walled, unspecialized in structure, and therefore adaptable, with differentiation, to various functions.
 - The cells are found in many places throughout plant bodies and, given that they are alive, are actively involved in photosynthesis, secretion, food storage, and other activities of plant life.
 - **Collenchyma** -
 - It supports the tissue of living elongated cells with irregular cell walls.
 - It has thick deposits of cellulose in its cell walls and appears polygonal in cross-sections.
 - The strength of the tissue results from these thickened cell walls and the longitudinal interlocking of the cells.
 - It may form cylinders or occur as discrete strands and is one of the three ground, or fundamental, tissues in plants, together with parenchyma (living thin-walled tissue) and sclerenchyma (dead support tissue with thick cell walls).
 - **Sclerenchyma**
 - It supports tissue composed of any of various kinds of hard woody cells.
 - Mature sclerenchyma cells are usually dead cells that have heavily thickened secondary walls containing lignin.
 - The cells are rigid and nonstretchable and are usually found in nongrowing regions of plant bodies, such as the bark or mature stems.
 - It is one of the three types of ground, or fundamental, tissue in plants; the other two types are parenchyma (living thin-walled tissue) and collenchyma (living support tissue with irregular walls).

- Its occur in many different shapes and sizes, but two main types occur fibers and sclereids.

92. Answer: a

Explanation:

Project Blue Flag was launched by Ministry of Environment, Forest and Climate change to develop and enhance standards of cleanliness on beaches.

- Till date, all the coastal states have nominated pilot beaches in their receptive territories including Goa. However, formal nominations are awaited from coastal UTs.
- The Blue Flag is certified by Foundation for Environmental Education that a beach, marina or sustainable boating tourism operator, meets its stringent standards.

93. Answer: b

Explanation:

One of the most ancient spiral galaxies ever revealed has been discovered by astronomers in Australia.

- At 11 billion years old, the A1689B11 galaxy was formed only 2.6 billion years after the Big Bang, making it nearly as old as the universe itself.

94. Answer: b

Explanation:

Credit Suisse Global Wealth Report is released by Credit Suisse Research Institute.

- Credit Suisse's latest annual Global Wealth Report says India is home to 245,000 dollar millionaires. The country has a share of 0.7% of the global top 1% by wealth, who collectively owns half the world's total wealth. In India, 340,000 adults are part of this elite group. There are 1,820 adult Indians who have wealth over 50million, and, at the very apex, 760 have more than 100 million.
- The chart shows India's wealth pyramid. At the bottom, 92.3% of adults have wealth less than 10,000. Above that, in the 10,000 to 100,000 bracket, we have 7.2100,000.
- Incidentally, the upper limit of the bottom bracket or 10,000 is very high by Indian standards because median wealth in India is a mere 1,295 per adult.

95. Answer: b

Explanation:

Singer and composer of official anthem for Bharat Ke Veer is Kailash Kher.

- Home Minister Rajnath Singh launched an official anthem for "Bharat Ke Veer", an initiative with a corpus fund to help the families of paramilitary troopers killed in the line of duty.
- During the event, an amount of 12.93 crore was raised with contributions from participants, including celebrities and people from the corporate world. The event was also attended by heads of all the Central Armed Police Forces.

96. Answer: d

Explanation:

The correct answer is 144.

★ Key Points

Work(W) = potential difference (V) × charge(Q)

$$W = 6 \times 24$$

$$W = 144 \text{ joule}$$

97. Answer: d

Explanation:

When the vibrating object moves forward, it creates a region of high pressure in the medium called compression.

- This phenomenon is most commonly occurred in Sound waves.
-

98. Answer: d

Explanation:

The atmosphere helps in keeping the temperature of earth at steady levels.

- During day time atmosphere prevents the temperature getting too high and during night time it does not allow heat to escape the earth, in this way a fairly steady temperature is maintained throughout the year on earth.
-

99. Answer: a

Explanation:

The 2017 Women's Cricket World Cup won by England.

- Australia won the 2016–17 Men's FIH Hockey World League Final , defeating Argentina.
- The Tennis 2017 US Open Men's Singles won by Rafael Nadal(16th grand slam), defeating South African Kevin Anderson on Arthur Ashe stadium.

100. Answer: b

Explanation:

Colspan allows a single table cell to span the width of more than one cell or column.

- Rowspan allows a single table cell to span the height of more than one cell or row.
- Cellpadding used in conjunction with the table element, it specifies the amount of space between the border of a table cell and its contents.
- Cell spacing attribute specifies the space, in pixels, between cells.

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