



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 (25-Mar-2018) (Shift 1)

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. revarberate
- b. reverberate
- c. reverberete
- d. revarberete

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)

In the entire

A: process of discoveries

B: and development, ethics

C: was exiled

- a. CBA
- b. ABC
- c. CAB
- d. BCA

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 (+2, -0.5)

improvement is needed, select "no improvement".

The greeting card (also reducing) the need to sit down and write loving messages to our dear ones.

- a. has also reduce
- b. had also reduce
- c. has also reduced
- 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)

By the time we set out, the sun (sit) pretty in the blue sky.

- a. was sitting
- b. had sitting
- c. was sit
- 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)

Relating to the study of the nature of god and religious belief

- a. Scepticism
- b. Atheism

- c. Impiety
 - d. Theological
-

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)

The state or quality of being holy, sacred, or saintly

- a. Base
 - b. Sanctity
 - c. Vile
 - d. Heinous
-

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)

The tail is wagging the dog

- a. A situation where a small good thing makes everyone happy.
 - b. The less important or subsidiary factor, person, or thing dominates a situation.
 - c. A person who is always happy to meet you.
 - d. Even smaller tasks become important if the whole project is to succeed.
-

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)

Cut corners

- a. Remove the sharp edges now if you don't want to get hurt later.
- b. One has to sacrifice to achieve one's goals.
- c. Even a coward when cornered musters strength to fight back.
- d. Do something perfunctorily so as to save time or money.

-
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)

Starting late-2014, scientists of the National Aeronautics and Space Administration (NASA) working _____ satellite data tracking the rift found that the defect in the Larsen C was growing _____. By 2016 the crack became 70 miles long and 300 feet _____. By January 2017 it measured 109 miles in length and 1,500 metres in breadth. On July 12, it broke. The broken shelf, now _____ official iceberg, was massive, indeed the _____-ever such iceberg, weighing 1.1 trillion tons and measuring 2,200 square miles.

indeed the _____-ever such iceberg,

- a. big
- b. bigger
- c. biggest
- d. the big

-
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 (+2, -0.5)

the four alternatives.

Starting late-2014, scientists of the National Aeronautics and Space Administration (NASA) working _____ satellite data tracking the rift found that the defect in the Larsen C was growing _____. By 2016 the crack became 70 miles long and 300 feet _____. By January 2017 it measured 109 miles in length and 1,500 metres in breadth. On July 12, it broke. The broken shelf, now _____ official iceberg, was massive, indeed the _____-ever such iceberg, weighing 1.1 trillion tons and measuring 2,200 square miles.

shelf, now _____ official iceberg

- a. a
- b. an
- c. the
- d. once

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)

Starting late-2014, scientists of the National Aeronautics and Space Administration (NASA) working _____ satellite data tracking the rift found that the defect in the Larsen C was growing _____. By 2016 the crack became 70 miles long and 300 feet _____. By January 2017 it measured 109 miles in length and 1,500 metres in breadth. On July 12, it broke. The broken shelf, now _____ official iceberg, was massive, indeed the _____-ever such iceberg, weighing 1.1 trillion tons and measuring 2,200 square miles.

and 300 feet _____. By January 2017

- a. width

- b. length
- c. breadth
- d. wide

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)

Starting late-2014, scientists of the National Aeronautics and Space Administration (NASA) working _____ satellite data tracking the rift found that the defect in the Larsen C was growing _____. By 2016 the crack became 70 miles long and 300 feet _____. By January 2017 it measured 109 miles in length and 1,500 metres in breadth. On July 12, it broke. The broken shelf, now _____ official iceberg, was massive, indeed the _____-ever such iceberg, weighing 1.1 trillion tons and measuring 2,200 square miles.

was growing _____. By 2016 the

- a. steadily
- b. steady
- c. instead
- d. instead of

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)

Starting late-2014, scientists of the National Aeronautics and Space Administration (NASA) working _____ satellite data tracking the rift found that the defect in the Larsen C was growing _____. By 2016

the crack became 70 miles long and 300 feet _____. By January 2017 it measured 109 miles in length and 1,500 metres in breadth. On July 12, it broke. The broken shelf, now _____ official iceberg, was massive, indeed the _____-ever such iceberg, weighing 1.1 trillion tons and measuring 2,200 square miles.

Administration (NASA) working _____ satellite data tracking

- a. besides
- b. along
- c. by
- d. with

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. Ceiling
- b. Cieling
- c. Ceeling
- d. Crileing

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)

"My hour has come." thought the king.

- a. The king thought that his hour had come.
- b. His hour had come thought the king.

c. The king thought that his hour had came.

d. The king wondered if his hour has come.

-
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)

The fans invited the cricketer.

a. The cricketer was invited by the fans.

b. The cricketer received an invitation by the fans.

c. The cricketer is invited by the fans.

d. The cricketer was invite by the fans.

-
17. Rearrange the parts of the sentence in correct order. (+2, -0.5)

Climatic information can

P : be obtained through an

Q : in tree growth

R : understanding of changes

a. PQR

b. RPQ

c. PRQ

d. QRP

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)

Effervescent

- a. Bouncy
 - b. Lively
 - c. Stale
 - d. Resilient
-

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)

Vanguard

- a. Forefront
 - b. Follower
 - c. Leader
 - d. Pioneer
-

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)

Reminisce

- a. Remember
- b. Discover

c. Forget

d. Hang

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)

Repugnance

a. Esteem

b. Respect

c. Aversion

d. Sympathy

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)

The many _____ of Dalhousie have made it popular among tourists.

a. signs

b. attractions

c. entertainment

d. disadvantages

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)

This is Hrithik Roshan's autograph, _____?

- a. hasn't he
- b. isn't he
- c. isn't it
- d. hasn't it

-
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)

The truth is that when people seeing you zoned into your work and (1)/ in harmony with yourself, (2)/ they come to distract you. (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 excessive use of pesticides (1)/ has negatively (2)/ effected soil output. (3)/ No error (4)

- a. 1
- b. 2

c. 3

d. 4

Prepp

Your Personal Exams Guide

General Intelligence

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

School : Education :: ? : ?

- a. Class : College
- b. Hospital : Treatment
- c. Teacher : School
- d. Scalpel : Teacher

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

5 : 125 :: 7 : ?

- a. 729
- b. 512
- c. 343
- d. 243

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

BGR : CIU :: HCY : ?

- a. JFB

b. JEC

c. IFC

d. IEB

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

a. Cup – Tea

b. Jug – Water

c. Bowl – Curd

d. Pen – Butter

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. 25 – 21

b. 39 – 35

c. 51 – 47

d. 93 – 87

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

a. IMQ

- b. CGJ
 - c. JNR
 - d. OSW
-

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

- 1. Tolerate
- 2. Toddle
- 3. Toast
- 4. Toilet
- 5. Tiring

- a. 51423
 - b. 52143
 - c. 25143
 - d. 53241
-

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

18, 37, 76, 155, 314, ?

- a. 633
- b. 537
- c. 528

d. 628

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)

HJRN, JMTQ, LPVT, NSXW, ?

- a. PVZZ
 - b. QWYY
 - c. QVAA
 - d. PVYZ
-

35. Raman remembers that his marriage is before 20th July and after 13th July. His mother remembers that Raman's marriage is after 16th July. His father remembers that Raman's marriage is before 19th July. On which date of July is Raman's marriage? (+2, -0.5)

- a. 15 or 16
 - b. 17 or 18
 - c. 14 or 15 or 16
 - d. 15 or 16 or 17
-

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

PREMONITION

- a. Moon

b. Move

c. More

d. Note

37. In a certain code language, "PILOW" is written as "49352" and "TRAIN" is written as "78691". How is "PRAWN" written in that code language? (+2, -0.5)

a. 69832

b. 29647

c. 97816

d. 48621

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

$$9 \times 18 \div 5 - 90 + 8 = ?$$

a. 35

b. 15

c. 11

d. 2

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

$$24 + 4 - 20 \div 9 \times 5 = 31$$

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

40. If $5 \# 5 = -25$, $-4 \# 3 = 12$ and $3 \# 3 = -9$, then find the value of $4 \# 5 = ?$ (+2, -0.5)

- a. 49
- b. -17
- c. -56
- d. -20

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

BBAAAAA, ABBAAAA, AABBAAA, AAABBAA, AAAABBA, _____.

- a. AAAAAAB
- b. ABBAAAA
- c. BBAAAAA
- d. AABBAAA

42. Chand and Dhyan start from the same point. Chand walks 105 m North, then turns East and walks 55 m, then turns to his right and walks 75 m. At the same time, Dhyan walks 45 m South, then turns to his left and walks 55 m. Where is Chand now with respect to the position of Dhyan? (+2, -0.5)

- a. 75 m South
- b. 135 m North
- c. 135 m South
- d. 75 m North

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: Some burgers are fast foods

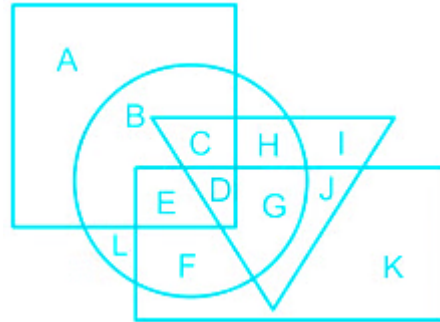
Statement II: Some sandwiches are burgers

Conclusion I: No fast foods are sandwiches

Conclusion II: Some fast foods are burgers

- 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 rectangle represents Opticians, circle represents Art critics, triangle represents Riders and square represents Boxers, which set of letters represents Art critics who are not Riders? (+2, -0.5)



- a. BLEF
- b. CHDG
- c. EDGJ
- d. IJ

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)

CPI, AME, YJA, WGW, ?

- a. UDS
- b. VDT
- c. VCS
- d. UCT

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

44, 40, 36, ?, 28, 24

- a. 30
- b. 29

c. 32

d. 34

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)

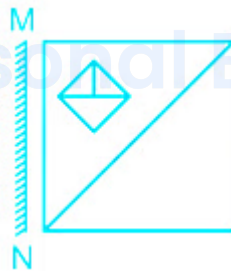
a. (8, 23, 15)

b. (12, 35, 23)

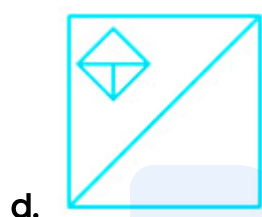
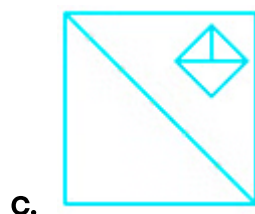
c. (15, 44, 31)

d. (17, 50, 33)

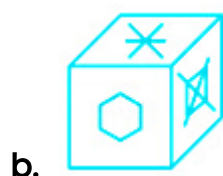
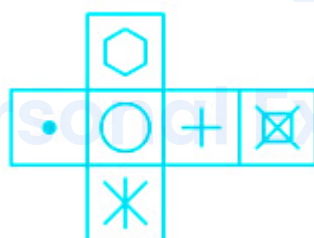
48. If a mirror is placed on the line MN, then which of the answer figures in the right image of the given figure? (+2, -0.5)

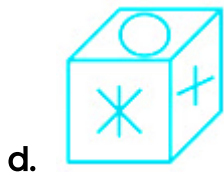
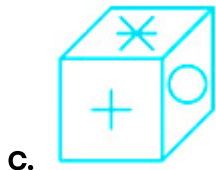


a.



49. Which of the following cube is 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 one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are resented 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 a **Matrix-II** are numbered from 5 to 9. A letter from these matrices can be represented first by its row and row and next by its column, for example, 'F' can be represented by 14, 31 etc., and 'U' can be represented by 86, 97 etc. Similarly, you have to identify the set for the word "**SACK**". (+2, -0.5)

Your Personal Exams Guide

MATRIX – I						MATRIX – II					
	0	1	2	3	4		5	6	7	8	9
0	F	C	I	L	H	5	R	P	Z	R	V
1	K	E	A	D	F	6	S	O	P	Y	T
2	M	C	F	M	E	7	W	N	Q	V	P
3	G	F	M	M	E	8	X	U	O	O	Z
4	M	E	K	E	C	9	W	P	U	W	Q

- a. 97, 12, 21, 42
- b. 65, 12, 21, 42
- c. 12, 77, 21, 68
- d. 30, 55, 42, 68

Your Personal Exams Guide

Quantitative Aptitude

51. If a number $6573547x45$ is divisible by 9, then find the value of x . (+2, -0.5)

- a. 0
- b. 6
- c. 8
- d. 7

52. Calculate the value of $\frac{(59881 \times 59881 - 49681 \times 49681)}{10200}$ (+2, -0.5)

- a. 109662
- b. 109562
- c. 109652
- d. 110956

53. If $\left(\frac{5}{7}\right)^{4x} \left(\frac{7}{5}\right)^{3x-1} = \left(\frac{7}{5}\right)^8$, then find the value of x which satisfies the equation. (+2, -0.5)

- a. -1
- b. -9
- c. 9
- d. 1

54. If $\frac{x^{32}-1}{x^{16}} = 5$ then find the value of $\frac{x^{96}-1}{x^{48}}$ (+2, -0.5)

- a. 40
- b. 140
- c. 180
- d. 70

55. If the length of the transverse tangent is 8 cm, then calculate the centre distance (in cm) of the two circles with radii 7 cm and 3 cm. (+2, -0.5)

- a. $\sqrt{164}$
- b. 6
- c. $\sqrt{100}$
- d. $\sqrt{48}$

56. Calculate the value of $\angle OBC + \angle BAC$, if O is the circum centre of the triangle ABC inscribed in the circle. (+2, -0.5)

- a. 60°
- b. 130°
- c. 90°
- d. 120°

57. Weight of A and B are in the ratio 11 : 8. A's weight increases by 40% and the total weight of A and B increases by 30%. What is the percentage increase in the B's weight? (+2, -0.5)

- a. 12.5
- b. 10.25
- c. 16.25
- d. 18.75

58. The income of S, T and U are in the ratio of 7 : 9 : 6 and their expenses in the ratio of 4 : 5 : 3. If S saves Rs 2000 out of an income of Rs 14000, then what will be the saving (in Rs) of T? (+2, -0.5)

- a. 1500
- b. 2400
- c. 3000
- d. 2000

59. A mixture contains acid and water in the ratio of 7 : 3. If 4 litres of water is added to it, then the ratio of acid and water becomes 7 : 4. What is the quantity (in litres) of acid in the mixture? (+2, -0.5)

- a. 20
- b. 32
- c. 28
- d. 22

60. What will be the average of the first 7 positive odd numbers divisible by 5? (+2, -0.5)

- a. 45
- b. 35
- c. 32
- d. 40

61. The simple interest on a sum is $\frac{7}{8}$ of the principal for 5 years. What is the rate (in percentage) of interest per annum? (+2, -0.5)

- a. 22.5
- b. 15
- c. 17.5
- d. 14

62. If A purchase 9 chairs for Rs. 5 and sells all the chairs at the rate of 5 chairs for Rs. 9, then what will be the profit percentage? (+2, -0.5)

- a. 248
- b. 224
- c. 194
- d. 212

63. The marked price of a pen is Rs. 3000. The shopkeeper gives two successive discounts of 15% and $a\%$ to the customer. If the customer pays Rs. 2142 fourth pen, then what is the value (in percentage) of a ? (+2, -0.5)

a. 17

b. 18

c. 14

d. 16

64. What is the value of $\sqrt{1054} + \sqrt{196} + \sqrt{169} + \sqrt{64}$? (+2, -0.5)

a. 29

b. 33

c. 37

d. 31

65. X and Y undertook to do a piece of work for Rs 5400. X alone could do this work in 18 days and Y alone could do this work in 24 days. With the assistance of Z they finished the work in 8 days. What is the share (in Rs) of Z? (+2, -0.5)

a. 1500

b. 1600

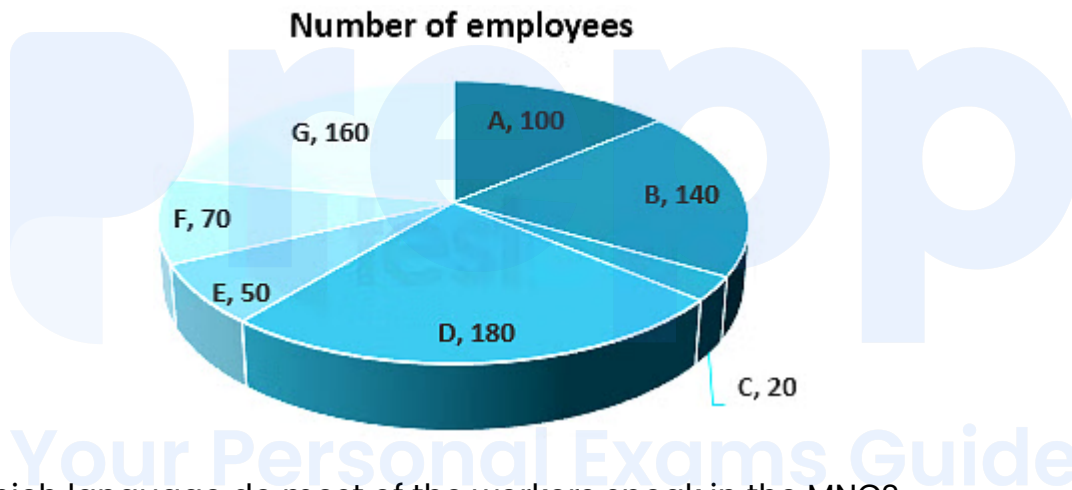
c. 1800

d. 1200

66. A boat cover row 12 km upstream in 4 hours and can cover the same distance downstream in 3 hours. What is the speed (in km/hr) of the boat in still water? (+2, -0.5)

- a. 2
- b. 3.5
- c. 2.5
- d. 3

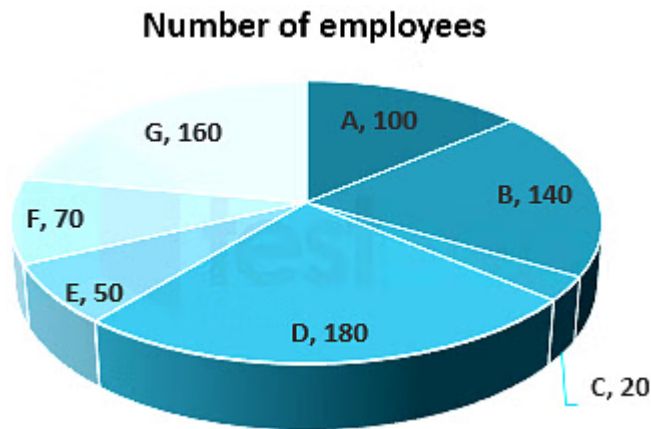
67. **Direction:** The HR department of an MNC prepared a report. The pie chart represents all the employees of the MNC and the languages they speak. Study the diagram and answer the following questions. The alphabets denote the language and the numbers denote the number of employees. (+2, -0.5)



In which language do most of the workers speak in the MNC?

- a. F
 - b. G
 - c. D
 - d. C
68. **Direction:** The HR department of an MNC prepared a report. The pie chart represents all the employees of the MNC and the languages they speak. (+2, -0.5)

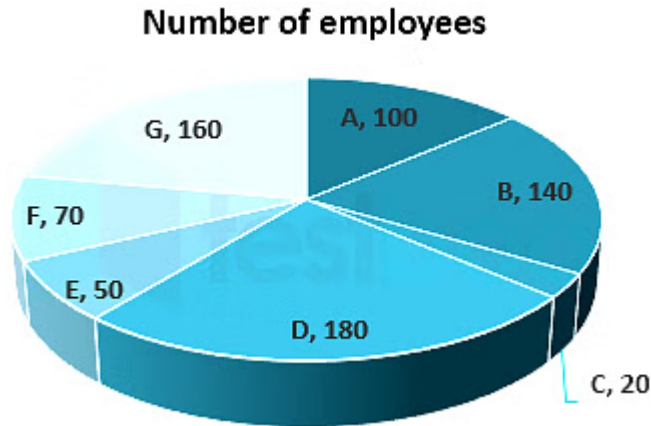
Study the diagram and answer the following questions. The alphabets denote the language and the numbers denote the number of employees.



What is the total number of employees working in the MNC?

- a. 780
- b. 720
- c. 640
- d. 600

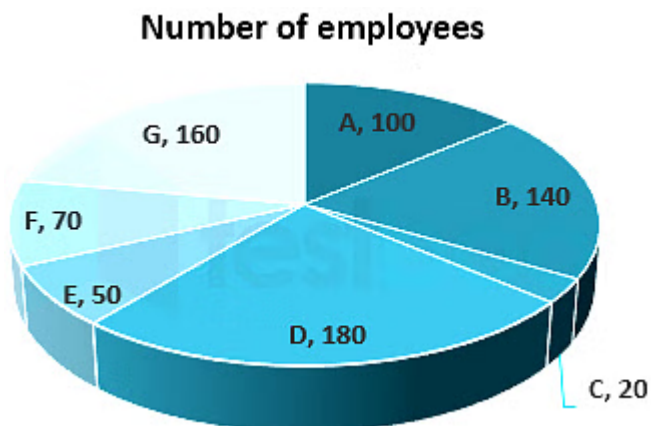
69. **Direction:** The HR department of an MNC prepared a report. The pie chart represents all the employees of the MNC and the languages they speak. Study the diagram and answer the following questions. The alphabets denote the language and the numbers denote the number of employees. (+2, -0.5)



The measure of the central angle of the sector representing language A is _____ degrees.

- a. 60
- b. 50
- c. 100
- d. 25

70. **Direction:** The HR department of an MNC prepared a report. The pie chart represents all the employees of the MNC and the languages they speak. Study the diagram and answer the following questions. The alphabets denote the language and the numbers denote the number of employees. (+2, -0.5)



If the average monthly salary of the employees of this MNC is 5000 then what is the total of the salaries (in millions) paid to all the employees of this MNC?

- a. 18
- b. 3.6
- c. 36
- d. 1.8

71. The area and the breadth of a rectangle are 288 cm^2 and 16 cm respectively. Find the length of its perimeter (in cm). (+2, -0.5)

- a. 68
- b. 136
- c. 102
- d. 34

72. Calculate the area (in cm^2) of a circle whose diameter is 35 cm . (+2, -0.5)

- a. 962.5
- b. 1715
- c. 857.5
- d. 1825

73. Find the volume (in cm^3) of a hemisphere of diameter 14 cm . (+2, -0.5)

- a. 628
- b. 718.67
- c. 512.33
- d. 826

74. What is the value of $(\sqrt{2}/3 - \operatorname{cosec} 60^\circ)$? (+2, -0.5)

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

75. ΔXYZ is right angled at Y. If $\cot X = 5/12$, then what is the value of $\sec Z$? (+2, -0.5)

- a. $5/12$
- b. $12/5$
- c. $13/12$
- d. $13/5$

General Awareness

76. For an inferior good, demand falls when _____. (+2, -0.5)

- a. Price rises
- b. Income rises
- c. Income falls
- d. Price falls

77. Which of the following is NOT a Nuclear Power Centre? (+2, -0.5)

- a. Talcher
- b. Narora
- c. Rawatbhata
- d. Kakrapar

78. The 'noble tradition' was related to which of the following the dynasties? (+2, -0.5)

- a. Rashtrakuta
- b. Sen
- c. Pratihara
- d. Pal

79. Alauddin Khilji's first military operation was against which of the following? (+2, -0.5)

- a. Gujarat
 - b. Ranthambore
 - c. Chittaur
 - d. Devagiri
-

80. Which port is situated on the southern tip of the Suez Canal? (+2, -0.5)

- a. Port Ibrahim
 - b. Port Suez
 - c. Port Said
 - d. Ismailia
-

81. The Machkund project is a joint project of which two states? (+2, -0.5)

- a. West Bengal and Odisha
 - b. Odisha and Andhra Pradesh
 - c. Karnataka and Andhra Pradesh
 - d. West Bengal and Bihar
-

82. Who was the exponent of Yoga Darshana? (+2, -0.5)

- a. Jamini
- b. Kapil

- c. Patanjali
 - d. Gautam
-

83. At which of the following places the 5th Global Conference on Cyber Space (GCCS) was held on November 23-24, 2017? **(+2, -0.5)**

- a. Tokyo
 - b. New Delhi
 - c. Sanya
 - d. London
-

84. Who among the following was honoured with the IAAF male Athlete of year Award for 2017 at an award ceremony in Monaco in November 2017? **(+2, -0.5)**

- a. Wayde van Niekerk
 - b. Mo Farah
 - c. Mutaz Essa Barshim
 - d. Usain Bolt
-

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

- a. Football
- b. Hockey
- c. Cricket

d. Table Tennis

86. What is the purpose of adding Gypsum to the cement? (+2, -0.5)

- a. To slow down its rate of setting
 - b. For lubrication
 - c. To make it strong
 - d. To increase its rate of setting
-

87. Which of the following has highest penetration power? (+2, -0.5)

- a. α - radiations
 - b. γ - radiations
 - c. β - radiations
 - d. All have same penetration power.
-

88. Which of the following organ of the government refers to a smaller group of people who are responsible for implementing laws and running the government? (+2, -0.5)

- I. The Judiciary
 - II. The Executives
 - III. The Legislature
- a. Only I
 - b. Only III

- c. Only II
 - d. No option is correct.
-

89. In which of the following countries fascism did originate? (+2, -0.5)

- a. France
 - b. Russia
 - c. Japan
 - d. Italy
-

90. Along the path of the Vas deferens which glands add their secretions in the sperms? (+2, -0.5)

- I. Prostate
 - II. Seminal vesicles
 - III. Scrotum
- a. All I, II and III
 - b. Only I and III
 - c. Only II and III
 - d. Only I and II
-

91. Which among the following constituents of Xylem is/are tubular structure(s)? (+2, -0.5)

- I. Tracheids

II. Vessels

III. Xylem fibres

- a. All I, II and III
 - b. Only II
 - c. Only I and II
 - d. Only I
-

92. Indian Government is hopeful of bringing at least one crore subscribers by March 2018 under the Atal Pension Yojana (APY). What is the age limit for APY? (+2, -0.5)

- a. 21 to 70 years
 - b. 18 to 45 years
 - c. 21 to 60 years
 - d. 18 to 40 years
-

93. What is the duration of the world's shortest X-ray laser successfully created by the scientists? (+2, -0.5)

- a. 57 microseconds
 - b. 39 nanoseconds
 - c. 15 picoseconds
 - d. 43 attoseconds
-

94. In April 2017, on the birth anniversary of Dr. B. R. Ambedkar which body announced the winners of Lucky Draw Schemes like 'Lucky Grahak Yojana' and 'Digi-Dhan Vyapar Yojana'? (+2, -0.5)

- a. State Bank of India
- b. Reserve Bank of India
- c. NITI Aayog
- d. No option is correct.

95. Where was the 7th edition of Rashtriya Sanskriti Mahotsav held from 14 January to 20 January, 2018? (+2, -0.5)

- a. Kanpur
- b. New Delhi
- c. Jaipur
- d. Bengaluru

96. Find the potential energy gained by a body of mass 60 kg, if it is raised by 12 m. (use $g = 10 \text{ m/s}^2$) (+2, -0.5)

- a. 50
- b. 7200
- c. 3600
- d. 25

97. Light is a _____ wave. (+2, -0.5)

- a. mechanical
 - b. transverse
 - c. longitudinal
 - d. elastic
-

98. Terrestrial life-forms require _____ water for life processes. (+2, -0.5)

- a. salt
 - b. fresh
 - c. sour
 - d. saline
-

99. Which of the statement (s) given below is/are correct? (+2, -0.5)

- A) In 2017, Virat Kohli captained the IPL team Rising Pune Supergiant.
 - B) In 2017 Pro Kabaddi League, Surjeet Singh played for Bengal Warriors.
 - C) United Kingdom hosted the Table Tennis 2017 ITTF Women's World Cup.
- a. Only B
 - b. Both A and C
 - c. A, B and C
 - d. No option is correct.

100. _____ among the following is not a type of JavaScript. (+2, -0.5)

- a. text/vbscript
- b. Javascript vbscript
- c. text/javascript
- d. text/ecmascript

prepp

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Answers

1. Answer: b

Explanation:

The correctly spelt word is *reverberate*. It means resound / re-echo / be repeated several times as an echo.

Example : Her singing reverberated through the halls.

Therefore, the correct answer is **option 2**.

2. Answer: b

Explanation:

The correct answer is 'ABC'

★ Key Points

- Going through the parts A, B and C, the only part that can form the first part of the sequence is A.
- '*In the entire process of discoveries...*' makes logical sense. The next part can be B which continues the thought flow. '*discoveries and development*' form a sensible pair of words joined by the conjunction *and*.
- This is suitably followed by C. The correct sequence is ABC.
- *In the entire process of discoveries and development, ethics was exiled.*

Therefore, the correct answer is **option 2**.

3. Answer: c

Explanation:

The correct answer is '**Has also reduced**'

★ Key Points

- The correct structure to be used is *had/has + verb in past participle*.
- Let us see some examples to understand:
 - *I had cooked some food for you.*
 - *They had bought a new car.*
 - *This has given me a new opportunity.*
- *Has* is used in the present tense and *had* in the past tense.
- The sentence in the question is discussing one of the advantageous features of writing a greeting card. This is valid in the present time. So, we will use *has*. The past participle form of the verb *reduce* is *reduced*.
- Correct sentence - *The greeting card **has also reduced** the need to sit down and write loving messages to our dear ones.*

Therefore, the correct answer is **option 3**.

4. Answer: a

Explanation:

The correct answer is '**was sitting**'

★ Key Points

- The sentence is in past tense. The action was completed in the past. The rule is : past continuous tense can be used to describe something that was happening continuously in the past when another action interrupted it (this action is expressed in simple past).
 - *Examples :*
 - *I was making lunch when he arrived.*
 - *When I woke up, it was raining*

- In the given question, it would be grammatically correct to use the past continuous tense as 'by the time we set out' is in simple past tense.

Correct Sentence - *By the time we set out, the sun was sitting pretty in the blue sky.*

Therefore, the correct answer is **option 1**.

5. Answer: d

Explanation:

The correct answer is '**Theological**'

★ Key Points

Let us look into the meaning of the given words:

1. Scepticism – an attitude that shows that one doubts the truth of something
2. Atheism – lack of belief in the existence of God
3. Impiety – lack of respect for sacred things or God
4. Theological – relating to the study of faith and religion

Therefore, the correct answer is **option 4**.

★ Additional Information

Scep tici sm	The girl in the photograph is skeptical because of spectacles.	
Athei sm	This Aunt is an Atheist .	
I mpiety	I will feel a pity if impiety flourishes	
Theo logical	"Theos" is a root word that means "God". Any word formed with the help of "theo" will have the sense of "god" in it.	

6. Answer: b

Explanation:

Let us look into the meaning of the difficult words:

1. Sanctity – the quality of being sacred or holy (पवित्रता की अवस्था)
2. Vile – extremely unpleasant and unacceptable (बहुत खराब या अप्रिय)
3. Heinous – very wicked, bad or shocking (जघन्य, अतिदुष्ट)

Hence, the word **sanctity** is the best substitute, making **option 2** the correct answer.

Sanctity	there is sanctity in my son's city
Vile	My mother's mood become vile when she sees my mobile .
Heinous	" Heinsa "(violence) is always Heinous

7. Answer: b

Explanation:

The idiom 'The tail is wagging the dog' means that an unimportant part of something is becoming very important and is controlling the whole thing.

Example : *The company cannot accept the demands of this small group. We don't want the tail wagging the dog, after all.*

Therefore, the correct answer is **option 2**.

8. Answer: d

Explanation:

'Cut corners' meaning to do something in the easiest and shortest way especially to save money, time or efforts.

Example : *It is not a smart move to **cut corners** with national security.*

Therefore, the correct answer is **option 4**.

9. Answer: c

Explanation:

The structural form that we require to understand is this : *Superlative + ever + present perfect*

Examples – *Titanic is the best movie I have ever seen (Best + ever + seen)*

It is the worst relationship I have ever had. (worst + ever + had)

So, in the given sentence, we need the superlative form (highest degree of comparison) of *big* – ***biggest***. (... ***indeed the biggest-ever such iceberg***,...)

Therefore, the correct answer is **option 3**.

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10. Answer: b

Explanation:

'A' / 'An' are articles having the same meaning used for singular nouns. We use 'a' in front of consonant sounds and 'an' before vowel sounds.

In English alphabets, A, E, I, O and U are vowels and the rest are consonants. Thus, we have : a girl, a boy, an apple, an orange etc.

In the given sentence, *official* starts with a vowel sound. So, the most appropriate article would be *an* (*shelf, now **an** official iceberg ...*)

Therefore, the correct answer is **option 2**.

11. Answer: d

Explanation:

Width is the measure used to indicate how wide something is. The following example will help us to

understand how these words differ in their usage.

This table is 1 metre wide / The width of this table is 1 metre.

Similar is the case with *length* and *long* : *This table is 1 metre long / The length of this table is 1*

metre.

So, looking at the given context, the most appropriate word is *wide* (*and 300 feet wide . By January 2017...*) .

Therefore, the correct answer is **option 4**.

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12. Answer: a

Explanation:

Adverbs describe how, when or where an action takes place. These are describing words of verbs. They often end with -ly.

For example, Ramesh does his job sincerely . Here, *sincerely* describes how Ramesh does his job. So, *sincerely* is an adverb.

Similarly, in the question, we need an adverb that will describe the verb 'growing'. *Steadily* seems an appropriate answer. (*was growing steadily. By 2016 the ...*)

Therefore, the correct answer is **option 1**.

13. Answer: d

Explanation:

The correct preposition to be used here is *with* – you work with something.

When we use *with* in the blank, the part of the sentence is logically and grammatically correct : ***Administration (NASA) working with satellite data tracking***

Therefore, the correct answer is **option 4**.

14. Answer: a

Explanation:

The correctly spelt word is 'Ceiling'. Therefore, the correct answer is **option 1**.

"I before E, except after C" is the general rule to be followed. We often have *-ei* after c in spellings. For other words, *-ie* is used.

Examples: *relieve, receive, fierce, friend, conceive*

15. Answer: a

Explanation:

The correct answer is **'The king thought that his hour had come.'**

★ **Key Points**

- In Direct speech, the message is conveyed in the words of the author or concerned person.

- In Indirect speech, the message is conveyed in our words.
- When we convert Direct speech to Indirect speech, we omit the inverted commas. Also, the conjunction *that* is added before introducing the words spoken between quotation marks (“...”).
- Some notable changes that are made while doing the conversion from Direct to Indirect is :
 - am --> was
 - is --> was
 - has --> had
 - have been to --> had been to
- So, *has* in the given sentence of the question should be converted to *had*.

So the correct sentence is- *The king thought that his hour had come.*

Therefore, the correct answer is **option 1**.

16. Answer: a

Explanation:

The correct answer is 'The cricketer was invited by the fans.'

★ **Key Points**

- When the subject performs the action – it is Active Voice.
- When the subject is being acted upon by the verb – it is Passive Voice.
- We should change the sequence of the subject and the object (or the action) while keeping the meaning intact.
- In Active voice – Subject + verb + object is the sequence.
- In Passive voice – Object + verb + Subject is the sequence.
- (Subject is someone that works on the object)
- In the given sentence, 'the fans' is the subject because they are doing an action. They are inviting. The action is done on the object which is the cricketer here. So, the sentence in the question is in its Active Voice.

To change it into passive voice, the sentence should begin with the object 'The cricketer'.

- Verbs are also changed. Some conversions are :
 - Eats --> is eaten
 - Is cleaning --> is being cleaned
 - Will clean --> will be cleaned
 - Destroyed --> was destroyed

Following these thumb rules, the same sentence in the passive voice is *The cricketer was invited by the fans.*

Therefore, the correct answer is **option 1**.

17. Answer: c

Explanation:

The correct answer is 'PRQ'

★ Key Points

- The first part of the sequence can be P as it continues the thought flow. 'Climatic information can be obtained through an...' seems logically sound.
- Now, we need to know through what climatic information can be obtained? This is answered by part R. So, R can follow with Q as the ending part of the sentence. The right sequence is **PRQ**.

Climatic information can be obtained through an understanding of changes in tree growth

Therefore, the correct answer is **option 3**.

18. Answer: c

Explanation:

The word *Effervescent* means lively, marked by high spirits or excitement.

Let us look into the meaning of the difficult words:

Bubbly – cheerful and full of high spirits

Stale – not fresh, not enthusiastic, bored

Resilient – able to withstand and recover quickly from difficult conditions

We find that the word *stale* expresses the opposite meaning.

Therefore, the correct answer is **option 3**.

19. Answer: b

Explanation:

The correct answer is '**Follower**'

★ Key Points

- The word *Vanguard* means a group of people leading the way in ideas or new developments
- Let us look into the meaning of the difficult words:
 - **Forefront** – the most important or influential position
 - **Pioneer** – one of the first people to do something
- We find that the word *follower* expresses the opposite meaning.

Therefore, the correct answer is **option 2**.

20. Answer: a

Explanation:

The correct answer is '**Remember**'

★ Key Points

- The word *Reminisce* means to talk or write (enjoyably) about something from the past. In a way, it is like remembering the past with pleasure.
- We find that the word *remember* expresses the similar meaning.

Therefore, the correct answer is **option 1**.

21. Answer: c

Explanation:

The correct answer is '**Aversion**'

★ Key Points

- The word *Repugnance* means a feeling of strong dislike or disgust.
- Let us look into the meaning of the given words:
 - **Esteem** – admiration and respect
 - **Aversion** – a strong dislike
 - **Sympathy** – understanding and caring for someone else's misfortune or suffering
- We find that the word *aversion* expresses a similar meaning.

Therefore, the correct answer is **option 3**.

22. Answer: b

Explanation:

The correct word is '**attractions**' as it suits the given context. Here, it means the aspects or features that make something interesting.

Complete sentence: *The many **attractions** (interesting features) of Dalhousie have made it popular among tourists.*

The correct answer is **option 2**.

23. Answer: c

Explanation:

Here the correct answer is Isn't it.

★ Key Points

:-

- In the above-given sentence, isn't it will be used.
- It is a usual practice to state something and then end the sentence with a question asking for confirmation.
- Consider the sentence, "It is hot, isn't it?". The part "isn't it?" is called a question tag.
- The general rules of using a question tag are:
- Finish the negative statement using a positive question tag.
- Examples: -
 - *They are not going to the mall, are they ?*
 - *Swati can't sing, can she ?*
- Finish the positive statement using a negative question tag.
- Examples: -
 - *Sameer cooks well, doesn't he ?*
 - *Sakshi broke the laptop, didn't she ?*

Complete sentence – *This is Hrithik Roshan's autograph, isn't it?*

★ Hinglish

- ऊपर दिए गए वाक्य में, isn't it का प्रयोग किया जाएगा।

- कुछ कहना और फिर पुष्टि के लिए पूछने वाले प्रश्न के साथ वाक्य को समाप्त करना एक सामान्य प्रथा है।
- वाक्य पर विचार करें, "It is hot, isn't it?"। भाग "isn't it?" प्रश्न टैग कहा जाता है।
- प्रश्न टैग का उपयोग करने के सामान्य नियम हैं:
- सकारात्मक प्रश्न टैग का उपयोग करके नकारात्मक कथन समाप्त करें।
- उदाहरण: -
 - *They are not going to the mall, are they ?*
 - *Swati can't sing, can she ?*
- नकारात्मक प्रश्न टैग का उपयोग करके सकारात्मक कथन समाप्त करें।
- उदाहरण: -
 - *Sameer cooks well, doesn't he ?*
 - *Sakshi broke the laptop, didn't she ?*

पूरा वाक्य - *This is Hrithik Roshan's autograph, isn't it?*

24. Answer: a

Explanation:

The error lies in part 1 of the sentence. Therefore, the correct answer is **option 1**.

Looking at the structure of the sentence, *see* should replace *seeing* to make the sentence grammatically correct. The context uses the simple present tense.

Correct Sentence - *The truth is that when people **see** you zoned into your work and in harmony with yourself, they come to distract you*

25. Answer: c

Explanation:

The error lies in part 3 of the sentence. Therefore, the correct answer is **option 3**.

Let us understand the meanings of the words *affect* and *effect*.

The word *affect* is used as a verb only. We can use *effect* as both verb and noun.

Affect means to influence something or someone. **Effect**, when used as a noun, means the result of an influence. When used as a verb, effect means to bring about or cause something to occur.

Examples –

*The harmful effects of a bad company should be highlighted among teenagers.
(effect as noun)*

The bad company has affected him severely.

*The government was not able to effect any social change. (effect as a verb –
meaning the government was not able to bring about any social change)*

In the given sentence, *affected* should replace the word *effected* to make the sentence grammatically correct.

Correct Sentence – The excessive use of pesticides has negatively affected soil output.

26. Answer: b

Explanation:

As School is for education similarly hospital is for treatment.

27. Answer: c

Explanation:

125 is the cube of 5.

Similarly, 343 is the cube of 7.

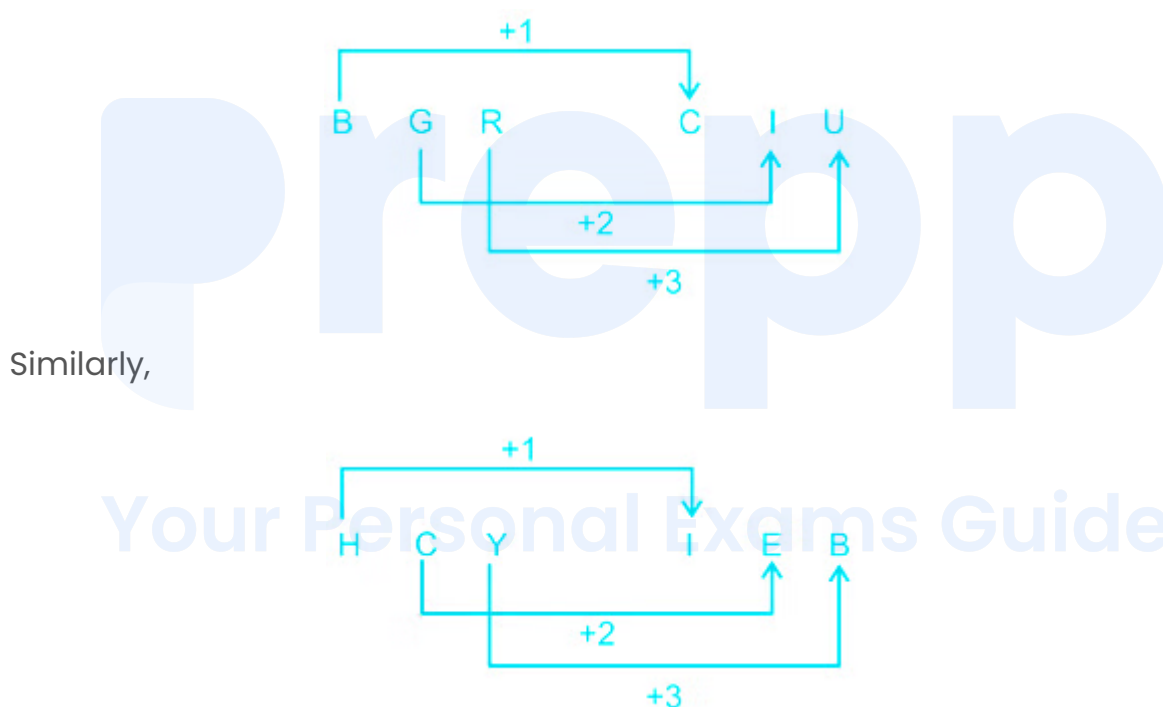
Thus, 343 is the answer.

28. 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 logic here as follows:



Hence, the correct answer is "IEB".

29. Answer: d

Explanation:

Except option 4, in all the other alternatives, the first one is used to hold/store the second one.

30. Answer: d

Explanation:

$$21 + 4 = 25$$

$$35 + 4 = 39$$

$$47 + 4 = 51$$

$$87 + 4 = 91 \neq 93$$

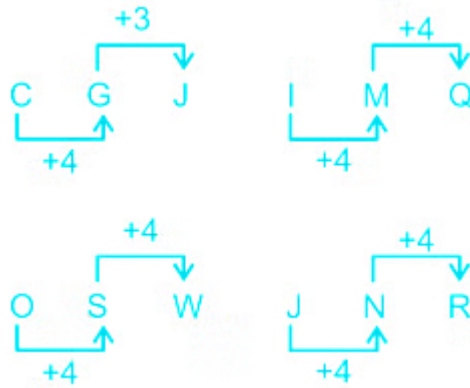
Except option 4, in all the other alternatives, the first one is greater than the second one by 4.

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

The logic here is as follows:



Hence, the correct answer is "CGJ".

32. Answer: d

Explanation:

After arranging the given words in the dictionary order, we get

5. Ti ring
3. To ast
2. Tod dle
4. Toi let
1. Tol erate

Hence, the correct answer is "53241".

33. Answer: a

Explanation:



Hence, the answer is 633.

34. Answer: a

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:

$$H + 2 = J + 2 = L + 2 = N + 2 = P$$

$$J + 3 = M + 3 = P + 3 = S + 3 = V$$

$$R + 2 = T + 2 = V + 2 = X + 2 = Z$$

$$N + 3 = Q + 3 = T + 3 = W + 3 = Z$$

Hence, the correct answer is PVZZ.

35. Answer: b

Explanation:

Given that, "Raman remembers that his marriage is before 20th July and after 13th July" and "His mother remembers that Raman's marriage is after 16th July."

It's means Raman's marriage is on 17th July or 18th July or 19th July.

Again, given that "His father remembers that Raman's marriage is before 19th July."

Hence, Raman's marriage is on 17th July or 18th July.

36. Answer: b

Explanation:

1) Moon → PRE **MO** NITI **ON** → CAN be formed

2) More → P **REMO** NITION → CAN be formed

3) Move → PR **EMO** NITION → CANNOT be formed

4) Note → PR **EM ON** IT ION → CAN be formed

Hence, the answer is "MOVE".

37. Answer: d

Explanation:

Given that "PILOW" is written as "49352" and "TRAIN" is written as "78691".

Here, "I" is common in both the words and here his value is "9".

So, "PRAWN" is written as "48621".

38. Answer: d

Explanation:

Given that: $9 \times 18 \div 5 - 90 + 8$

After change the code: $9 + 18 \times 5 \div 90 - 8 = 9 + 1 - 8 = 2$

Hence, the answer is 2.

39. Answer: d

Explanation:

Given equation: $24 + 4 - 20 \div 9 \times 5 = 31$

1) After interchange “- and +”

$$24 - 4 + 20 \div 9 \times 5 \neq 31$$

2) After interchange “ $\div$ and $\times$ ”

$$24 + 4 - 20 \div 9 \times 5 \neq 31$$

3) After interchange “ $\times$ and -”

$$24 + 4 \times 20 \div 9 - 5 \neq 31$$

4) After interchange “+ and $\div$ ”

$$24 \div 4 - 20 + 9 \times 5 = 31$$

Hence, the answer is option 4.

40. Answer: d

Explanation:

Given coding follow the following code:

$$5 \# 5 \rightarrow \{(5) \times (5)\} \times -1 \rightarrow -25$$

$$-4 \# -3 \rightarrow \{(-4) \times (3)\} \times -1 \rightarrow 12$$

$$3 \# 3 \rightarrow \{(3) \times (3)\} \times -1 \rightarrow -9$$

Similarly,

$$4 \# 5 \rightarrow \{(4) \times (5)\} \times -1 \rightarrow -20$$

Hence, the answer is '-20'.

41. Answer: a

Explanation:

Here, in every step 'BB' shift one place towards the right sides.

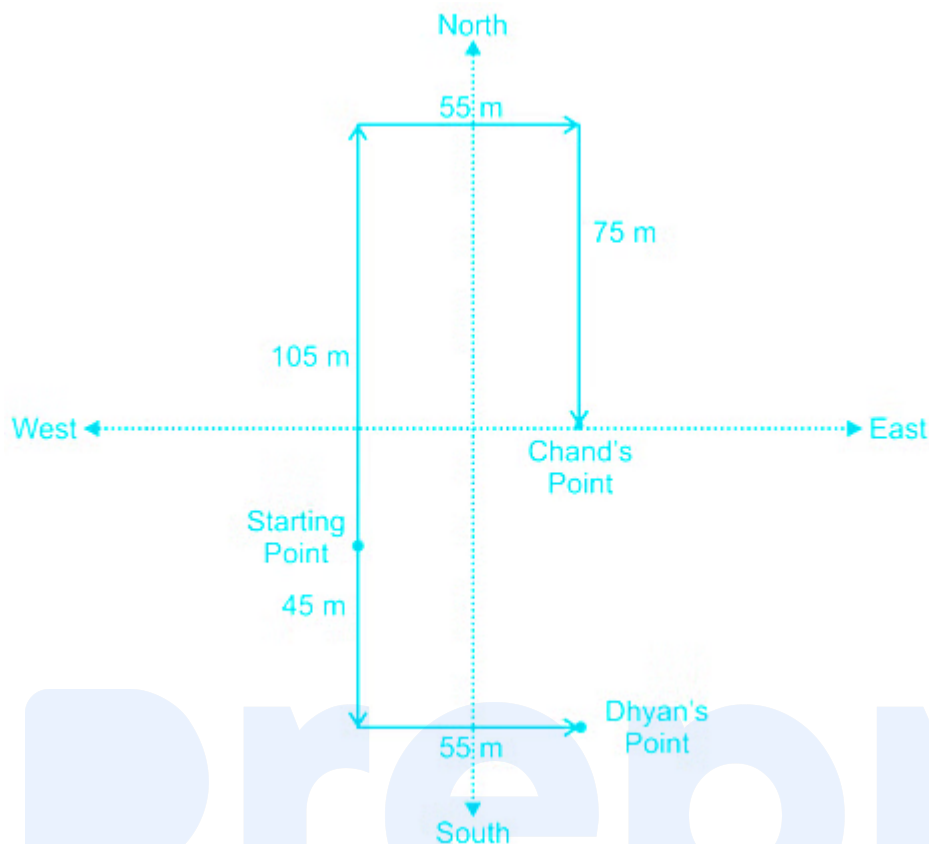
Hence, the answer is AAAAABB.

42. Answer: d

Explanation:

The paths followed by Chand and Dhyan are shown below,

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From the above figure,

The distance between Chand's final point and Dhyan's final point is,

$$= (105 + 45) - 75 \Rightarrow 150 - 75 = 75$$

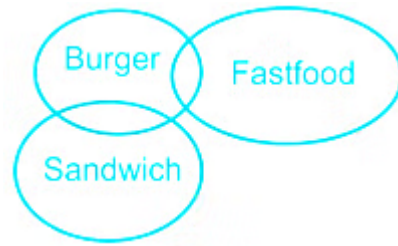
Thus, Chand is 75 m North with respect to the position of Dhyan.

Hence, the correct answer is, **"75 m North "**.

43. Answer: b

Explanation:

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



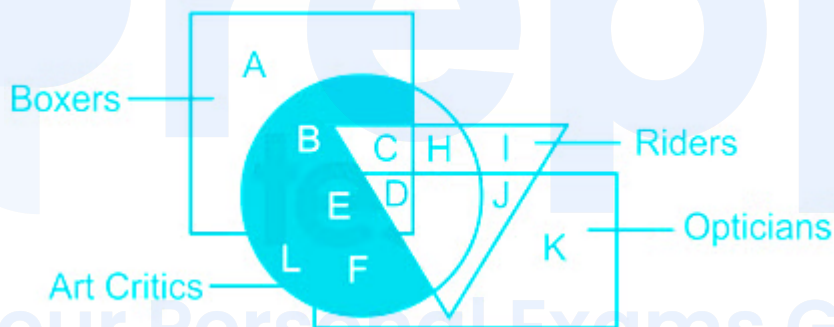
I. No fast foods are sandwiches → False (it is possible but not definite)

II. Some fast foods are burgers → True (as some burgers are fast foods)

Hence, only conclusion II follows.

44. Answer: a

Explanation:



Hence, BLEF is the set of letters represents Art critics who are not Riders.

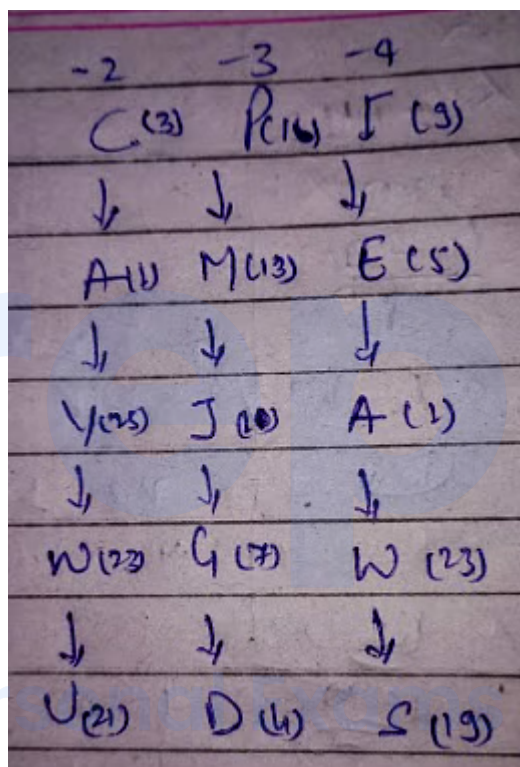
45. Answer: a

Explanation:

The table showing the alphabetical order is given below,

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 is the First, Second and the third letter of each word is shifted backwards by two, three and four places as per the English alphabetical order.



Hence, the correct answer is 'UDS'.

46. Answer: c

Explanation:



Hence, the answer is 32.

47. Answer: c

Explanation:

Logic: First number + Third number = Second number

Given set of number follows a particular rule:

1) $8 + 15 = 23$,

2) $12 + 23 = 35$,

3) $15 + 31 = 46$ (given 44) ,

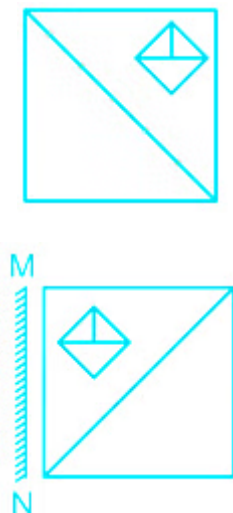
4) $17 + 33 = 50$

Hence, options 3 does not follow that rule.

48. Answer: c

Explanation:

The correct mirror image of the given figure when the mirror is held on the left side of the object is



Hence, the correct answer is, "Option 3".

★ Additional Information

In the Mirror image left side and right side changed vice-versa where the top and bottom remain the same.

The reflection of an object into the water is its water image. It appears by inverting an object vertically i.e. upside down.

The water image of the figure looks like the mirror image of the figure in case the mirror is horizontally at the bottom of the figure.

The water image is just a reflection where the top and bottom parts of the images changed while the left and right sides of the image remain the same.

49. Answer: b

Explanation:



figure cannot be made based on the unfolded cube in the given question figure.

50. Answer: b

Explanation:

- 1) 97, 12, 21, 42 – U, A, C, K
- 2) 65, 12, 21, 42 – S, A, C, K
- 3) 30, 55, 42, 68 – G, R, K, Y

4) 12, 77, 21, 68 – A, Q, C, Y

Hence, the correct answer is “65, 12, 21, 42”.

51. Answer: c

Explanation:

We know, A number is divisible by 9 if sum of its digit divisible by 9,

So, the number is 657354x45

So, sum of digit = $6 + 5 + 7 + 3 + 5 + 4 + 7 + x + 4 + 5 = 46 + x$

If we put $x = 8$, then number become $46 + 8 = 54$

We know, 54 is divisible by 9

$\therefore$ value of x is 8

52. Answer: b

Explanation:

We know, $a^2 - b^2 = (a + b)(a - b)$

$$\frac{59881 \times 59881 - 49681 \times 49681}{10200}$$

$$\Rightarrow \frac{(59881)^2 - (49681)^2}{10200}$$

$$\Rightarrow \frac{(59881 + 49681)(59881 - 49681)}{10200}$$

$$\Rightarrow \frac{109562 \times 10200}{10200}$$

$$\Rightarrow 109562$$

53. Answer: b

Explanation:

We know, $a^m \times a^n = a^{m+n}$

$$\Rightarrow \left(\frac{5}{7}\right)^{4x} \left(\frac{7}{5}\right)^{3x-1} = \left(\frac{7}{5}\right)^8$$

$$\Rightarrow \left(\frac{7}{5}\right)^{3x-1} = \left(\frac{7}{5}\right)^8 \times \left(\frac{7}{5}\right)^{4x}$$

$$\Rightarrow 3x - 1 = 8 + 4x$$

$$\Rightarrow x = -9$$

54. Answer: b

Explanation:

Formula used:

$$(a - b)^3 = a^3 - b^3 - 3ab(a - b)$$

Calculation:

$$\frac{x^{32}-1}{x^{16}} = 5$$

$$\Rightarrow x^{16} - \frac{1}{x^{16}} = 5$$

We know, $(a - b)^3 = a^3 - b^3 - 3ab(a - b)$

$$\Rightarrow \left(x^{16} - \frac{1}{x^{16}}\right)^3 = x^{48} - \frac{1}{x^{48}} - 3\left(x^{16} - \frac{1}{x^{16}}\right)$$

$$\Rightarrow 5^3 = \frac{x^{96}-1}{x^{48}} - 3 \times 5$$

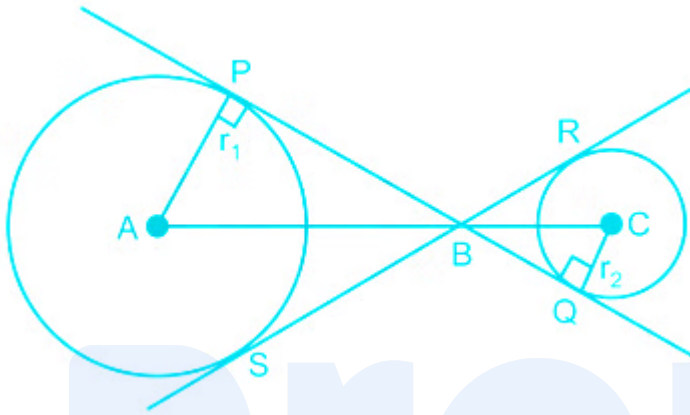
$$\Rightarrow 125 + 15 = \frac{x^{96}-1}{x^{48}}$$

$$\frac{x^{96}-1}{x^{48}} = 140$$

∴ The Required value of the given expression is 140

55. Answer: a

Explanation:



Distance between centres (AC) = d

Length of Transverse tangent = PQ = RS = 8 cm

By formula,

$$PQ^2 = d^2 - (r_1 + r_2)^2$$

$$\Rightarrow 8^2 = d^2 - (7 + 3)^2$$

$$\Rightarrow 64 = d^2 - 10^2$$

$$\Rightarrow d^2 = 100 + 64 = 164$$

$$\therefore d = \sqrt{164} \text{ cm}$$

56. Answer: c

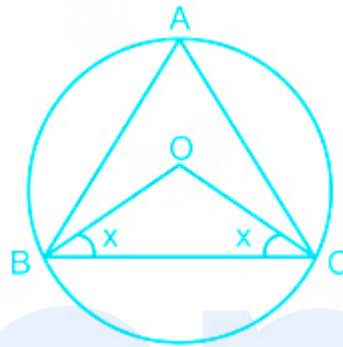
Explanation:

Concept used:

The angle subtended by an arc at the center is twice the angle subtended at the circumference.

$$\angle BOC = 2 \times \angle BAC$$

Calculation:



In $\triangle OBC$

Let $\angle OBC = x$

Thus, $\angle OCB = x$ ($\because OB = OC = r$)

The sum of all the angles of the triangle is 180° .

$$\angle BOC + \angle OBC + \angle OCB = 180$$

$$\Rightarrow \angle BOC + x + x = 180$$

$$\Rightarrow \angle BOC = 180 - 2x$$

Now,

$$\angle BOC = 2 \times \angle BAC$$

$$\text{So, } 2 \times \angle BAC = 180 - 2x$$

$$\Rightarrow \angle BAC = 90 - x$$

$$\angle BAC + \angle OBC = 90 - x + x = 90^\circ$$

∴ The correct answer is 90° .

57. Answer: c

Explanation:

Given, weight of A and B are in the ratio = 11 : 8

Let weight of A = 1100

& weight of B = 800

Total weight of (A + B) = 1000 + 800 = 1900

Let B's weight increases by x%

According to the question

$$\Rightarrow 1100 + 1100 \times 40/100 + 800 + 800 \times x/100 = 1900 + 1900 \times 30/100$$

$$\Rightarrow 1100 + 440 + 800 + 800 \times x/100 = 1900 + 570$$

$$\Rightarrow 2340 + 800 \times x/100 = 2470$$

$$\Rightarrow 800 \times x/100 = 130$$

$$\Rightarrow x = 130/800 \times 100$$

$$\therefore x = 16.25\%$$

58. Answer: c

Explanation:

Let income of S = 7x, income of T = 9x and expenses of U = 6x

And expenses of S = 4y, expenses of T = 5y and expenses of U = 3y

Given, S saves Rs 2000 out of an income of 14000.

$$\text{So, } 7x = 14000$$

$$\Rightarrow x = 2,000$$

$$\text{So, } 7x - 4y = 2000$$

$$\Rightarrow 14000 - 4y = 2000$$

$$\Rightarrow 4y = 12000$$

$$\Rightarrow y = 3000$$

$$\therefore \text{Savings of T} = 9x - 5y = 9 \times 2000 - 5 \times 3000 = 18000 - 15000 = 3000$$

59. Answer: c

Explanation:

Given:

$$\text{Acid : Water} = 7 : 3$$

Calculation:

$$\text{Let the acid in the mixture} = 7x$$

$$\text{And water in the mixture} = 3x$$

According to the question

$$\Rightarrow 7x / (3x + 4) = 7/4$$

$$\Rightarrow 28x = 21x + 28$$

$$\Rightarrow 7x = 28$$

$$\Rightarrow x = 4$$

$\therefore$ The quantity of acid in the mixture = $7x = 7 \times 4 = 28$

60. Answer: b

Explanation:

Average of the first 7 positive odd numbers divisible by 5

First positive odd number which divisible by 5 = 5

Second positive odd number which divisible by 5 = 15

So on, seventh positive odd number which divisible by 5 = 65

So, the series is in A.P (5, 15, 25, 35, 45, 55, 65)

We know, Average of any AP = $(\text{first term} + \text{last term})/2 = (5 + 65)/2 = 70/2 = 35$

61. Answer: c

Explanation:

Let the principal = $8x$

And Simple interest = $7x$

We know,

$$\Rightarrow SI = (p \times r \times t)/100$$

$$\Rightarrow 7x = (8x \times r \times 5)/100$$

$$\Rightarrow r = 17.5\%$$

62. Answer: b

Explanation:

CP of 9 chairs = Rs 5

So, P of 1 chair = $5/9$

SP of 5 chairs = 9

So, SP of 1 chair = $9/5$

We know, profit % = $(SP - CP)/CP \times 100$

$\therefore$ Profit% = $\{(9/5) - (5/9)\}/(5/9) \times 100 = 56/45 \times 9/5 \times 100 = 224\%$

63. Answer: d

Explanation:

MP of the pen = 3000

After 15% discount = $3000 \times 85/100 = 2550$

SP of the pen = 2142

$\therefore$ required discount = $(2550 - 2142)/2550 \times 100 = 408/2550 \times 100 = 16\%$

64. Answer: b

Explanation:

$$\sqrt{1054} + \sqrt{196} + \sqrt{169} + \sqrt{64}$$

$$\Rightarrow \sqrt{1054 + 14 + 13 + 8}$$

$$\Rightarrow \sqrt{1089}$$

$$\Rightarrow 33$$

65. Answer: d

Explanation:

X alone can do a work = 18

So, work done by X in 1 day = $\frac{1}{18}$

Y alone can do a work = 24

So, work done by Y in 1 day = $\frac{1}{24}$

The assistance of Z they finished the work = 8 days

Thus, work done by (X + Y + Z) in 1 day = $\frac{1}{8}$

So, work by z in 1 day = $\frac{1}{8} - \frac{1}{18} - \frac{1}{24} = \frac{1}{36}$

Z alone can do a work = 36 days

Ratio of time X : Y : Z = 18 : 24 : 36 = 3 : 4 : 6

We know, efficiency is inversely proportional to time

So, ratio of their efficiency X : Y : Z = $\frac{1}{3} : \frac{1}{4} : \frac{1}{6} = 4 : 3 : 2$

So, $4 + 3 + 2 = 9$ unit = 5400

$\Rightarrow 1$ unit = 600

$\Rightarrow 2$ unit = 1200

$\therefore$ Share of z is 1200

66. Answer: b

Explanation:

Let the speed of boat = x km/hr

& the speed of stream = y km/hr

According to the question

$$\Rightarrow 12/(x - y) = 4$$

$$\Rightarrow x - y = 3 \quad \text{-----(1)}$$

$$\Rightarrow 12/(x + y) = 3$$

$$\Rightarrow x + y = 4 \quad \text{-----(2)}$$

From equation (1) and equation (2)

$$\Rightarrow x = 3.5 \text{ and } y = 0.5$$

So, speed of boat in still water is 3.5 km/h

67. Answer: c

Explanation:

The language in which most of the workers in the MNC speak in is D i.e. 180.

68. Answer: b

Explanation:

$$\therefore \text{Total number of workers in the MNC} = A + B + C + D + E + F + G = 100 + 140 + 20 + 180 + 50 + 70 + 160 = 720$$

69. Answer: b

Explanation:

Total number of employees = 720

Total number of people sector A = 100

720 represents = 360°

$\therefore$ The measure of the central angle of the sector A = $360/720 \times 100 = 50^\circ$

70. Answer: b**Explanation:**

Total number of employees = 720

Given average salary of total employees = 5000

So, total salary of employees = $5000 \times 720 = 36,00,000$

71. Answer: a**Explanation:**

We know, area of the rectangle = $l \times b$

And, Perimeter of the rectangle = $2(l + b)$

Given, area of the given rectangle = 288 cm^2

And, breadth of the given rectangle = 16 cm

So, area of the given rectangle = 288

$\Rightarrow l \times b = 288$

$\Rightarrow l \times 16 = 288$

$$\Rightarrow l = 18$$

So, length of the given rectangle = 18 cm

$$\therefore \text{Perimeter of the given rectangle} = 2(l + b) = 2(18 + 16) = 68 \text{ cm}$$

72. Answer: a

Explanation:

We know, area of circle = πr^2

Given, diameter of circle = 35 cm

So, radius of circle = $35/2$

$$\therefore \text{Area of the given circle} = \pi r^2 = 22/7 \times 35/2 \times 35/2 = 962.5 \text{ cm}^2$$

73. Answer: b

Explanation:

We know, volume of hemisphere = $2/3 \times \pi r^3$

Given, diameter of hemisphere = 14 cm

So, radius of hemisphere = $14/2 = 7 \text{ cm}$

$$\therefore \text{Volume of hemisphere} = 2/3 \times \pi r^3 = 2/3 \times 22/7 \times 7 \times 7 \times 7 = 718.67 \text{ cm}^3$$

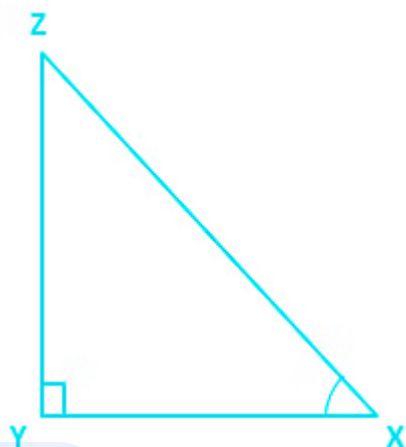
74. Answer: c

Explanation:

$$\therefore (\sqrt{2}/3 - \operatorname{cosec} 60^\circ) = \sqrt{2}/3 - 2/\sqrt{3} = (\sqrt{6} - 6)/3\sqrt{3}$$

75. Answer: c

Explanation:



Given, $\cot x = 5/12$, $\angle Y = 90^\circ$

$\Rightarrow \cot x = \text{Base/Perpendicular} = XY/YZ = 5/12$

In $\triangle XYZ$

By Pythagoras theorem

$$\Rightarrow (ZX)^2 = (XY)^2 + (YZ)^2$$

$$\Rightarrow (ZX)^2 = (12k)^2 + 5k^2$$

$$\Rightarrow ZX = 13k$$

$$\therefore \sec Z = xz/yz = 13/12$$

76. Answer: b

Explanation:

- **Inferior good** , in economics, is the good for which **demand decreases when the consumer income rises** , and demand increases when the consumer income decreases.
- In the case of normal goods, exactly the opposite is observed.

77. Answer: a

Explanation:

- **Talcher** is not a Nuclear Power Centre of India. It is a **thermal power plant** in the Odisha .
- In a **nuclear plant**, the heat source is from the **nuclear reaction** whereas in a **thermal power plant** it is from the combustion of **coal** .

Name of the Nuclear Power Station	Location
Narora Atomic Power Station	Narora, Bulandshahar district, UP
Kakrapar Atomic Power Station	Vyara, Gujarat
Rajasthan Atomic Power Station	Rawatbhata(Chittorgarh District), near Kota, Rajasthan

78. Answer: b

Explanation:

- The '**noble tradition**' was related to the **Sen/Sena dynasty**.
 - The Sena dynasty was a **Hindu dynasty** of the Indian subcontinent in the late classical period.
 - It ruled **Bengal** in the **11th** and the **12th centuries**.
-

79. Answer: a

Explanation:

- **Alauddin Khilji's** first military operation was against **Gujarat from 1299 to 1304**. He later conquered Ranthambore in 1301, Chittor in 1303, Malwa in 1305, Siwana in 1308, and Jalore in 1311.
 - Alauddin Khilji was the second ruler of the Khilji dynasty and the most powerful one who ruled the Delhi Sultanate.
-

80. Answer: b

Explanation:

- The **Suez Port** is an **Egyptian Port** which is situated on the southern tip of the Suez Canal.
- The **Suez Canal**, situated in Egypt, is an artificial sea-level waterway which connects the **Red Sea** to the **Mediterranean Sea** through the **Isthmus of Suez**.

Name of the port	Location
Suez Port	Southern tip of Suez Canal
Said Port	North of Suez Canal
Ismailia	City on the west bank of Suez Canal
Ibrahim Port	Egypt

81. Answer: b

Explanation:

- The **Machkund project** is a joint project of Government of **Odisha** and Government of **Andhra Pradesh**.
- It is a **hydroelectric project** which is situated near the Duduma Falls between the Odisha and Andhra Pradesh border.
- The planning of the project began in the 1930s and its actual displacement started in the late 1940s.

82. Answer: c

Explanation:

- **Yoga Darshana** is defined as the yoga system of philosophy which is associated with the Patanjali's Yoga Sutras.

- **Patanjali** , a great sage, systematized and organized the study of the yogic teachings and the human internal states into 196 sutras. These sutras are called the Yoga Darshana.
- There are **6 darshans** according to the Hindu philosophy, namely, *Nyaya, Purva Mimansa, Yoga, Uttara Mimansa, Sankhya* , and *Vaisheshika* .

83. Answer: b

Explanation:

- The **5th Global Conference on Cyber Space (GCCS)** was held on November 23-24, 2017 in **New Delhi** , India.
- It is the world's largest conference on cyberspace that took place outside the OECD nations for the first time.
- The theme of the 5th Global Conference on Cyber Space (GCCS), 2017 was ' **Cyber4All: An Inclusive, Sustainable, Developmental, Safe and Secure Cyberspace** '.
- It was inaugurated by Prime Minister **Narendra Modi** .

84. Answer: c

Explanation:

- **Mutaz Essa Barshim** from Qatar was honoured with the IAAF Male Athlete of Year Award for 2017 at an award ceremony in Monaco in November 2017.
- The IAAF Female Athlete of Year Award for 2017 was awarded to **Nafissatou Thiam** from Belgium.
- **Usain Bolt** from Jamaica, the retired sprinting legend received the IAAF President's Award.

85. Answer: b

Explanation:

The correct answer is Hockey.

★ Key Points

- Field Hockey is the **national sport of Pakistan**.
- Field Hockey is also the **national sport of India**.

86. Answer: a

Explanation:

The correct answer is To slow down its rate of setting.

★ Key Points

Gypsum:

- Plaster of Paris changes into gypsum on mixing with water and is used for decoration.
- Plaster of Paris, commonly called P.O.P. is **Calcium sulphate hemihydrate**.
- The chemical formula of Plaster of Paris is **$\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$** .
- Crystals of gypsum are produced when Plaster of Paris is mixed with water.
- **Gypsum is calcium sulphate dihydrate ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)** and a mineral used in cement manufacturing.
- It helps in **controlling the rate of hardening of the cement**. A small amount of gypsum is added to the clinker upon its cooling during the final grinding process. It controls the setting of cement.
- If it isn't added, the cement immediately sets post-mixing water and there is no time left for concrete placing.

★ Additional Information

Some common chemical compounds with their common names are:

Chemical Compounds	Common Names	Chemical Formulas
Sodium Bicarbonate	Baking Soda	NaHCO_3
Calcium ChlorohypoChlorite	Bleaching Powder	$\text{Ca}(\text{ClO})_2$
Sodium Hydroxide	Caustic Soda	NaOH
Sodium Carbonate	Washing Soda	$\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$
Carbon Dioxide	Dry Ice	CO_2
Copper Sulphate	Blue Vitriol	CuSO_4
Ferrous Sulphate	Green Vitriol	FeSO_4
Sulphuric Acid	Oil of vitriol	H_2SO_4
Calcium Sulphate Hemihydrate	Plaster of Paris	$(\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O})$
Calcium Sulphate Dihydrate	Gypsum	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
Calcium Hydroxide	Slaked Lime	$\text{Ca}(\text{OH})_2$

Sodium nitrate	Chile Saltpeter	NaNO ₃
Potassium nitrate	Saltpetre	KNO ₃
Hydrochloric acid	Muriatic acid	HCl

87. Answer: b

Explanation:

- The penetration power of alpha, beta, and gamma radiations vary greatly of which **gamma radiations** have the highest penetrating power. They are the most difficult to stop and can be blocked only by lead, concrete, or another heavy shielding.
- Alpha radiations can be blocked easily even with a few pieces of paper. Beta radiations can be stopped by aluminium foil but pass through the paper.

88. Answer: c

Explanation:

- The **Executive** refers to a smaller group of people who are responsible for implementing laws and running the government.
- The Constitution of India has recommended three organs of the state - the **Judiciary**, the **Executive**, and the **Legislative**.
- The **Legislatures** are the elected representatives, while the **Judiciary** is the system of courts in the country to stop any misuse of power by any branch of the government or country.

89. Answer: d

Explanation:

- **Fascism** first originated in **Italy** during the First World War and then later spread to other European countries.
- It is a form of radical authoritarian ultranationalism which is characterized by the strong regimentation of the economy and of society, forcible suppression of opposition, and dictatorial power.

90. Answer: d

Explanation:

The sperms are transferred from the Vas deferens to the urethra after collection secretions from the **Bulbourethral gland** , **Prostate gland** , and **Seminal vesicles** . These glands provide the semen in bulk.

91. Answer: c

Explanation:

- **Xylem** is a kind of tissue in vascular plants which transports nutrients and water from the roots to the leaves.
- It is composed of 4 types of cells, which are **tracheids** , **vessels** , **xylem fibers** , and **xylem parenchyma** . Of these, **xylem vessels** and **tracheids** are **tubular structures** .

92. Answer: d

Explanation:

- The age limit for the **Atal Pension Yojana** is **18 to 40 years** .
- The Atal Pension Yojana is a pension scheme started by the Government of India. It targets the unorganised sector and was launched by Prime Minister Narendra Modi in Kolkata on 9 May 2015.
- The start of the pension or the age of exit for this scheme would be **60 years** . The subscribers can opt for a monthly pension from **Rs.1000 to Rs.5000**.

93. Answer: d

Explanation:

- Scientists from **Zurich, Switzerland** successfully created the world's shortest X-ray laser pulse which has a duration of **43 attoseconds** .
- With the help of this, the researchers can now observe the electron movement in high detail and understand fully the dynamics during a chemical reaction.

94. Answer: c

Explanation:

- In April 2017, on the birth anniversary of Dr. B. R. Ambedkar, **NITI Aayog** announced the winners of Lucky Draw Schemes like 'Lucky Grahak Yojana' and 'Digi-Dhan Vyapar Yojana'.
- The announcement was made by the CEO of NITI Aayog- **Parameswaran Iyer** . The **Digi-Dhan Vyapar Yojana** has been designed for **merchants** , while the **Lucky Grahak Yojana** is for **consumers** .

95. Answer: d

Explanation:

The 7th edition of the **Rashtriya Sanskriti Mahotsav** was held in **Bengaluru, Karnataka** from 14 January to 20 January 2018 under the ' **Ek Bharat Shreshtha Bharat**' spirit to celebrate unity in diversity.

96. Answer: b

Explanation:

$$P.E = mgh$$

Given:-

$$m = 60 \text{ kg}; h = 12 \text{ m}; g = 10 \text{ m/s}^2$$

$$\text{Therefore, } P.E = 60 \times 10 \times 12$$

$$= 7200 \text{ kgm}^2/\text{s}^2 = 7200 \text{ J}$$

97. Answer: b

Explanation:

- **Light** is a transverse wave since the components of light vibrate perpendicular to the direction of propagation. Light has magnetic and electric components, thus it is an **electromagnetic transverse wave**.
 - A transverse wave is that wave which oscillates perpendicular to the direction of propagation.
-

98. Answer: b

Explanation:

Terrestrial life-forms require **fresh water** for life processes such as excretion processes, transportation, and cellular reactions, and not saline water since their bodies cannot get rid of the high amounts of salts present in the saline water.

99. Answer: a

Explanation:

- In 2017, **Steve Smith** captained the IPL team **Rising Pune Supergiant** .
 - In 2017 Pro Kabaddi League, **Surjeet Singh** played for **Bengal Warriors** .
 - **Canada** hosted the Table Tennis **2017 ITTF Women's World Cup** .
-

100. Answer: b

Explanation:

- Javascript **vbscript** is not a type of JavaScript.
- It is the name of **scripting language** .
- text/javascript, text/ecmascript and text/vbscript are types of JavaScript.