



Your Personal Exams Guide



NDA



CDS



SSC CGL



CBSE UGC NET



IAS



SSC CHSL



CTET



MPSC



AFCAT



CSIR UDC NET



IBPS PO



UP POLICE



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

- a. humanitarianism
- b. humanitariaesm
- c. humaniterianism
- d. humaniteriaesm

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)

On another day I was

A: demanded to see my ticket

B: ticket-checking personnel

C: travelling in the train when the

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

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

In the post-liberalisation era, urbanisation (has being taking) place at a rapid pace.

- a. has taken
- b. has been took
- c. had been took
- 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)

I (has failed) in my eleventh grade chemistry paper.

- a. was fail
- b. had failed
- c. is failing
- 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)

In a way that is clear or obvious to the eye or mind

- a. Abstruse
- b. Clandestine
- c. Manifest

d. Covertly

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)

Be appropriate or applicable

- a. Futile
 - b. Extraneous
 - c. Appertain
 - d. Irrelative
-

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)

Off the hook

- a. Every thing prepared and kept ready for you
 - b. Accept something without checking its veracity
 - c. No longer in difficulty or trouble
 - d. Put a person who is helping you into a difficult situation
-

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)

Don't count your chickens before they hatch.

- a. Counting your wealth repeatedly does not increase it.

- b. You should not make plans that depend on something good happening before you know that it has actually happened.
- c. Chicken and egg is an infinite cycle, you can count this cycle endlessly.
- d. Eggs will not hatch unless you cease the counting process.

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)

Society and individuals will evolve _____ changing times. Technology will continue to play an increasingly _____ role in our lives in the years to come. Passing the blame on to technology is the easiest thing to do, but how we _____ to use technology is an individual decision. In an attempt to be connected with the world _____ large, are we getting disconnected with the people who mean the most to us? This is a question worth pondering _____.

This is a question worth pondering _____.

- a. onto
- b. above
- c. over
- d. in

10. In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives. (+2, -0.5)

Society and individuals will evolve _____ changing times.
Technology will continue to play an increasingly _____ role in
our lives in the years to come. Passing the blame on to technology is the
easiest thing to do, but how we _____ to use technology is an
individual decision. In an attempt to be connected with the world
_____ large, are we getting disconnected with the people who mean
the most to us? This is a question worth pondering _____.

with the world _____ large, are we getting

- a. to
- b. as
- c. at
- d. is

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)

Society and individuals will evolve _____ changing times.
Technology will continue to play an increasingly _____ role in
our lives in the years to come. Passing the blame on to technology is the
easiest thing to do, but how we _____ to use technology is an
individual decision. In an attempt to be connected with the world
_____ large, are we getting disconnected with the people who mean
the most to us? This is a question worth pondering _____.

but how we _____ to use technology

- a. choice
- b. choose

c. choices

d. chosen

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)

Society and individuals will evolve _____ changing times. Technology will continue to play an increasingly _____ role in our lives in the years to come. Passing the blame on to technology is the easiest thing to do, but how we _____ to use technology is an individual decision. In an attempt to be connected with the world _____ large, are we getting disconnected with the people who mean the most to us? This is a question worth pondering _____.

play an increasingly _____ role in our lives

a. importances

b. important

c. importance

d. importantly

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)

Society and individuals will evolve _____ changing times. Technology will continue to play an increasingly _____ role in our lives in the years to come. Passing the blame on to technology is the easiest thing to do, but how we _____ to use technology is an individual decision. In an attempt to be connected with the world

_____ large, are we getting disconnected with the people who mean the most to us? This is a question worth pondering _____.

Society and individuals will evolve _____ changing times.

- a. by
- b. so
- c. if
- 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. Dielema
- b. Dilemma
- c. Dielemma
- d. Dilemna

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)

She said, "I will visit the temple."

- a. She said that she will visit the temple.
- b. She said that she would visit the temple.
- c. She acknowledged that she would visit the temple.

d. She says she would visit the temple.

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 youngsters lined the cafe.

- a. The cafe is lined by the youngsters.
 - b. The cafe was lined by the youngsters.
 - c. The cafe lined by the youngsters.
 - d. The cafe is lined.
-

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

Over population of humans is

P : the biggest factor behind so

Q : many social, sustainable and environmental

R : issues all over the world

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

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)

Airy

- a. Stuffy
 - b. Graceful
 - c. Indifferent
 - d. Light
-

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

Arraign

- a. Accuse
 - b. Charge
 - c. Indict
 - d. Free
-

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

Snaky

- a. Clever
- b. Mild

c. Sinuous

d. Wild

-
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)

Perspicacious

a. Foolish

b. Obscure

c. Shrewd

d. Indistinct

-
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 server with _____ I was talking is my good friend.

a. who

b. her

c. whom

d. which

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

He asked him to _____ some documents.

- a. set out
- b. go through
- c. look up
- d. imagine

-
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)

A balanced diet is one that provide (1)/ an adequate intake of energy and nutrients (2)/ for the maintenance of the body and good health. (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)

When we respect (1)/ everyone's spiritual identity, (2)/ we promote peace and happiness to all. (3)/No error (4)

- a. 1

b. 2

c. 3

d. 4

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General Intelligence

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

Perimeter : Hexagon :: ? : ?

- a. Length : Breadth
- b. Circle : Circumference
- c. Circle : Radius
- d. Perimeter : Rhombus

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

45 : 20 :: 46 : ?

- a. 32
- b. 28
- c. 24
- d. 22

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

IMO : PTV :: KOQ : ?

- a. QUX

b. SVW

c. RVX

d. RUW

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

a. Mammal - Goat

b. Amphibian - Frog

c. Reptile - Turtle

d. Crocodile - Reptile

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. 58 - 62

b. 18 - 22

c. 24 - 28

d. 36 - 42

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

a. EHL

- b. JMP
 - c. SVY
 - d. QTW
-

32. From the given alternatives, according to dictionary, which word will come at **LAST** position? (+2, -0.5)

1. Jailor 2. Javelin 3. Jam 4. Jagged 5. Jacket

- a. Javelin
 - b. Jailor
 - c. Jacket
 - d. Jagged
-

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

6578, 4381, 2653, ?, 322

- a. 1322
 - b. 1653
 - c. 1326
 - d. 1632
-

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)

FH, KM, PR, UW, ?

- a. ZB
- b. YA
- c. XZ
- d. YC

35. Six boys are sitting in a row facing south. Gaurav is second to the right of Akash who is at one of the end. Prem is at fourth position to the left of Raman. Jatin and Nitin sit together. How many boys are sitting to the left of Nitin? (+2, -0.5)

- a. 4
- b. 2
- c. 3
- d. Cannot be determined

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

Hardship

- a. Ship
- b. Hip
- c. Hard
- d. Road

37. In a certain code language, " CAB " is written as " 6 " and " LAN " is written as " 27 ". How is " FAN " written in that code language? (+2, -0.5)

- a. 20
- b. 21
- c. 22
- d. 23

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

$$17 - 8 + 2 \times 9 \div 8 =$$

- a. 7
- b. 40
- c. 67
- d. 32

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

$$17 \times 6 + 2 - 9 \div 2 = 44$$

- a. and +
- b. ÷ and ×
- c. × and -

d. + and ÷

40. If $1!9 = -80$, $2!8 = -60$ and $8!1 = 70$, then find the value of $3!2 = ?$ (+2, -0.5)

a. -20

b. -120

c. 100

d. 10

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

QRQPQPQP, QPRQPQPQP, QPQRQPQP, QPQPRQPQP, QPQPQRQPQP,

a. QPQPQPRQP

b. RQPQPQPQP

c. QRPQPQPQP

d. QPRQPQPQP

42. A street vendor pushes his cart 2 km South, then he turns East and walks 2.5 km, then he turns North and walks 1 km, then he turns to his left and walks 2.5 km. Where is he with respect to his starting point? (+2, -0.5)

a. 3 km South

b. 1 km North

c. 3 km North

d. 1 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: All pancakes are bread

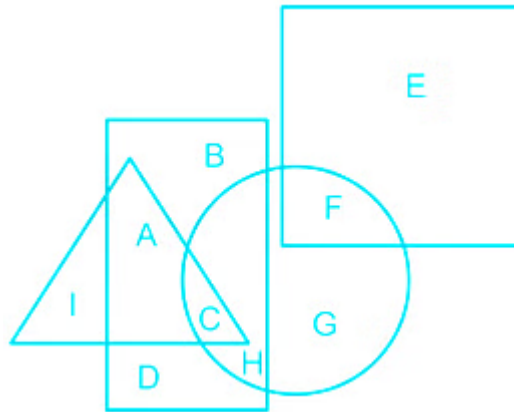
Statement II: Some pizzas are pancakes

Conclusion I: No bread are pizzas

Conclusion II: Some pizzas are bread

- 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 Authors, circle represents Food stylists, triangle represents Potters and square represents Cricketers. Which set of letters represents Authors who are either Food stylists or Potters? (+2, -0.5)



- a. ACH
- b. AC
- c. CH
- d. C

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)

HPU, BJO, VDI, PXC, ?

- a. JPX
- b. KRX
- c. KPW
- d. JRW

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

29, 27, 24, ?, 15, 9

- a. 22

d. $(11, 24, 20)$

b.

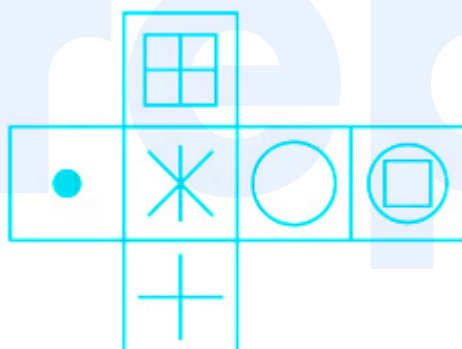


c.



d.

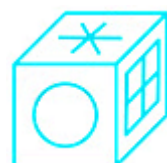
49. Which of the following cube in the answer figure cannot be made based on the unfolded cube in the question figure? (+2, -0.5)



a.



b.



c.





d.

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 'C' can be represented by 20, 32 etc and 'S' can be represented by 58, 98 etc. Similarly, you have to identify the set for the word 'BANE'.

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

- a. 20, 67, 21, 78
- b. 24, 66, 34, 79
- c. 24, 31, 96, 14
- d. 23, 78, 11, 99

Prepp

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Quantitative Aptitude

51. The sum of a fraction and its reciprocal is $1\frac{13}{56}$. Find the fraction. (+2, -0.5)

- a. $\frac{7}{8}$
 - b. $\frac{5}{8}$
 - c. $\frac{8}{9}$
 - d. $\frac{3}{7}$
-

52. The sum of the squares of three consecutive odd numbers is 2195. Find the numbers. (+2, -0.5)

- a. 21, 23, 25
 - b. 23, 25, 27
 - c. 25, 27, 29
 - d. 27, 29, 31
-

53. If $(8, 2)$ is a solution of $x + 4y - 2k = 0$, then find the value of k^2 . (+2, -0.5)

- a. 36
 - b. 49
 - c. 64
 - d. 81
-

54. From which of the following quadrants does the line $7x + 12y = 16$ will pass? (+2, -0.5)

- a. I and II
- b. II and III
- c. I, II, III
- d. I, II, IV

55. Calculate the length (in cm) of the chord of the circle which is at the distance of the 12 cm from the centre and the radius of the circle is 13 cm. (+2, -0.5)

- a. 10
- b. 12
- c. 13
- d. 15

56. A circle has points P, Q, R on a circle in such a way that angle PQR is 60° and angle QRP is 80° . Calculate the angle subtended by an arc QR at the centre. (+2, -0.5)

- a. 40°
- b. 80°
- c. 100°
- d. 120°

57. If a number is reduced by 35%, then it becomes 416. By how much percent should the number be increased so that it become 876.8? (+2, -0.5)

- a. 33
- b. 37
- c. 34.2
- d. 38.4

58. If $p : q : r = 2 : 3 : 5$, then what will be the ratio of $(p + q + r) : (3p + q - r)$? (+2, -0.5)

- a. 5 : 2
- b. 10 : 17
- c. 9 : 4
- d. 5 : 4

59. Sachin lent out Rs. 60000 in two parts, first at 4% and the second at 10% interest. The yearly average interest comes out to be 6.4%. What are the amounts (in Rs.) that were lent at 4% and 10% respectively? (+2, -0.5)

- a. 40000, 20000
- b. 48000, 12000
- c. 36000, 24000
- d. 32000, 28000

60. Average of runs of 133 players of a team is 38. If the average of runs of the male players is 43 and the average of runs of the female players is 24, then what will be the ratio of the total runs of male players and the total runs of female players respectively? (+2, -0.5)

- a. 301 : 60
- b. 7 : 3
- c. 39 : 11
- d. 60 : 207

61. A sum of Rs. 4000 becomes Rs. 5800 in 3 years, when invested in a scheme of simple interest. If the same sum is invested in a scheme of compound interest with same yearly interest rate (compounding of interest is done yearly), then what will be the amount (in Rs.) after 2 years? (+2, -0.5)

- a. 4430
- b. 5450
- c. 5290
- d. 4970

62. A sells vegetables at a price, 35% more than its cost price and for weighing uses a weight which is 10% less than the article weight. What is total profit percentage? (+2, -0.5)

- a. 50
- b. 35

c. 45

d. 55

63. A pen is sold at a discount of 36.36%. If the marked price of the pen is Rs. 14300, then what is the approximate selling price of the pen? (+2, -0.5)

a. 8600

b. 9100

c. 10200

d. 11700

64. Which of the following relation is correct? (+2, -0.5)

I. $(\sqrt{15} + \sqrt{7}) < (2\sqrt{22})$

II. $(\sqrt{17} + \sqrt{5}) < (\sqrt{20} + \sqrt{2})$

a. Only I

b. Only II

c. Neither I nor II

d. Both I and II

65. If 60 boys can finish a work in 15 days by working 8 hours a day, then how many hours a day should 72 boys work to finish that work within 20 days? (+2, -0.5)

a. 4

b. 6

c. 5

d. 7

66. Two trains are moving in the same direction at the speed of 23 km/hr and 77 km/hr. The time taken by faster train to cross a man sitting in the slower train is 40 seconds. What will be the length (in metres) of the faster train? (+2, -0.5)

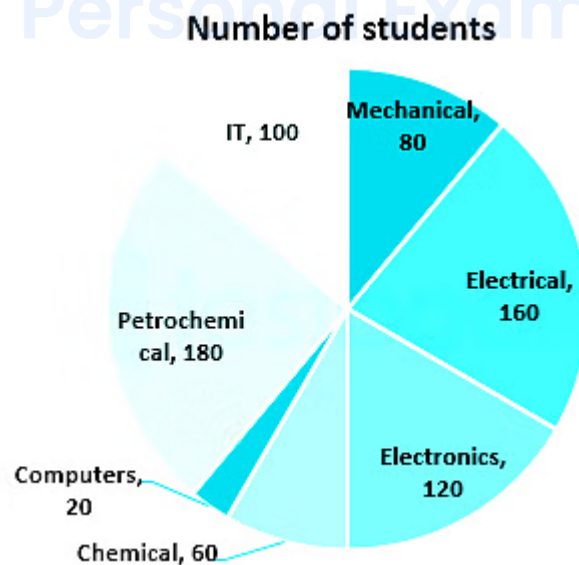
a. 720

b. 640

c. 600

d. 540

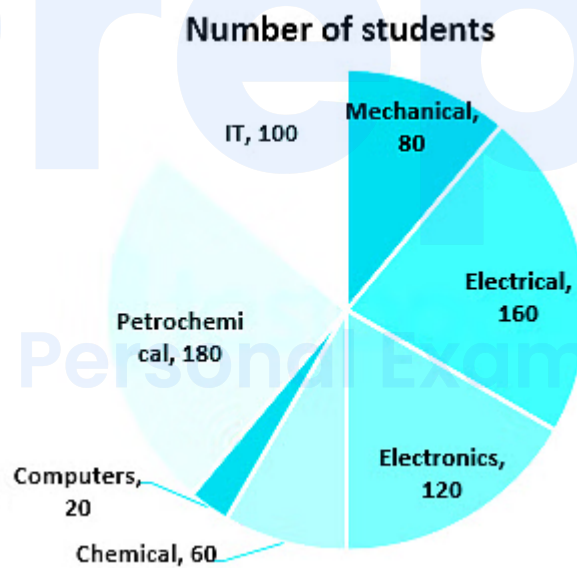
67. **Direction:** The pie chart shows the number of students enrolled in the various engineering courses that a certain college offers. Study the diagram and answer the following questions. (+2, -0.5)



The measure of the central angle of the sector representing the Electrical course is _____ degrees

- a. 120
- b. 90
- c. 100
- d. 80

68. **Direction:** The pie chart shows the number of students enrolled in the various engineering courses that a certain college offers. Study the diagram and answer the following questions. (+2, -0.5)



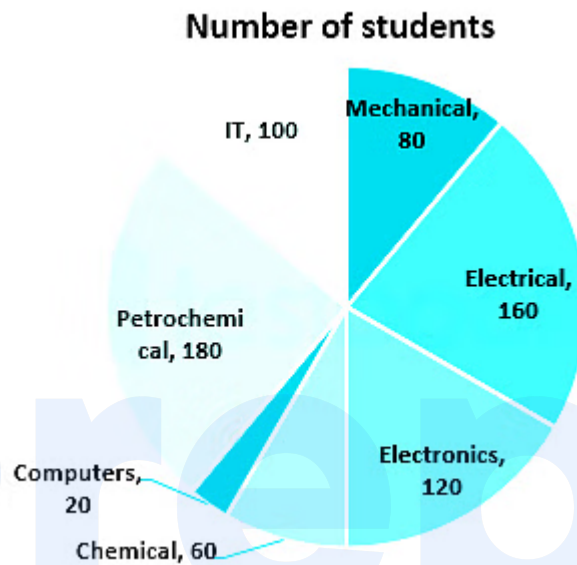
What is the total number of students enrolled in the college?

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

d. 640

69. **Direction:** The pie chart shows the number of students enrolled in the various engineering courses that a certain college offers. Study the diagram and answer the following questions.

(+2, -0.5)

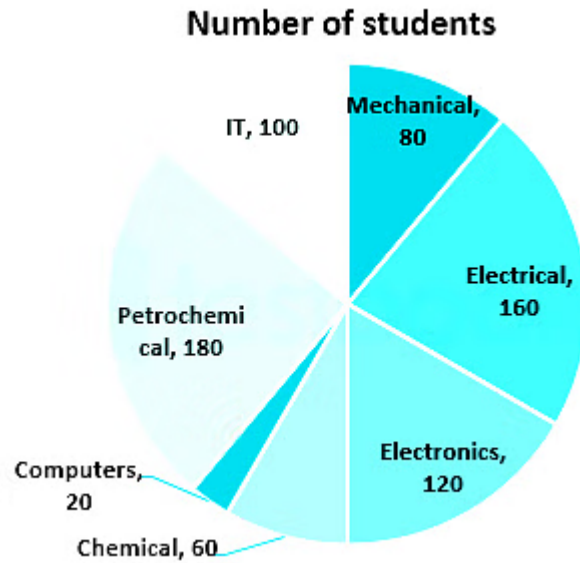


The most number of students are enrolled in which course?

- a. IT
- b. Electrical
- c. Electronics
- d. Petrochemicals

70. **Direction:** The pie chart shows the number of students enrolled in the various engineering courses that a certain college offers. Study the diagram and answer the following questions.

(+2, -0.5)



If the average annual fees paid by each student to enrol in this college is Rs 1.2 lakhs then what is the total annual fees (in lakhs) collected by this college.

- a. 864
- b. 720
- c. 956
- d. 1080

71. The perimeter of a square is 34 cm. Find its area (in cm^2). (+2, -0.5)

- a. 144.5
- b. 82.25
- c. 164.5
- d. 72.25

72. If the diameter of a circle is 28 cm, then what will be its circumference (in cm)? (+2, -0.5)

- a. 88
- b. 177
- c. 35
- d. 70

73. Find the volume (in cm^3) of a hemisphere of diameter 7 cm. (+2, -0.5)

- a. 77
- b. 63
- c. 89.83
- d. 54.13

74. ΔPQR is right angled at Q. If $\angle P = 60^\circ$, then find the value of $(\sec R + 1/2)$. (+2, -0.5)

- a. $(2\sqrt{2} + \sqrt{3})/2$
- b. $(\sqrt{3} + 4)/2\sqrt{3}$
- c. $\sqrt{3} + 2$
- d. $5/6$

75. In ΔPQR , measure of angle Q is 90° . If $\text{cosec} P = 17/15$, and $PQ = 0.8$ cm, then what is the length (in cm) of side QR? (+2, -0.5)

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

Prepp

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General Awareness

76. The demand for labour is the same as the _____. (+2, -0.5)
- a. marginal revenue product
 - b. marginal physical product
 - c. marginal cost
 - d. wage
-
77. In which year the Board of Industrial and Financial Reconstruction (BIFR) came into existence? (+2, -0.5)
- a. 1987
 - b. 1984
 - c. 1989
 - d. 1981
-
78. What is called the line that combines the places of the same amount of rainfall? (+2, -0.5)
- a. Isobath
 - b. Isohyet
 - c. Isozyme
 - d. Isoneph
-

79. Which of the following is NOT correctly matched? (+2, -0.5)

- a. Loktak Lake - Manipur
 - b. Sambhar Lake - Rajasthan
 - c. Lake Lonar - Maharashtra
 - d. Hussain Sagar - Karnataka
-

80. Who is credited for the construction of the Red Fort in Delhi ? (+2, -0.5)

- a. Sikandar Lodi
 - b. Akbar
 - c. Jahangir
 - d. Shah Jahan
-

81. When did all the trade unions, except Ahmedabad Textile Labor Union, be unified? (+2, -0.5)

- a. 1930
 - b. 1928
 - c. 1932
 - d. 1933
-

82. The word 'Tirthankara' is related to which of the following religions? (+2, -0.5)

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

83. Which country was ranked the World's richest in terms of per capita GDP of countries as per the latest data released by the International Monetary Fund (IMF) on November 18, 2017? **(+2, -0.5)**

- a. UAE
 - b. Qatar
 - c. Saudi Arabia
 - d. Kuwait
-

84. Who among the following writers was, on August 30, 2017, honoured with the Saraswati Samman for 2016? **(+2, -0.5)**

- a. Kedarnath Singh
 - b. Mahabaleshwar Sail
 - c. Rajen Toijmba
 - d. Autar Krishen Rahbar
-

85. What is the International Calling Code of Nepal? **(+2, -0.5)**

- a. 977

b. 947

c. 974

d. 964

86. Which of the following statements are CORRECT?

(+2, -0.5)

I. Oxides of metals are generally basic.

II. Oxides of non-metals are generally acidic.

III. Non-metals are generally electro-positive.

a. Only I and II

b. Only I and III

c. Only II and III

d. All I, II and III

87. Which one of the following mixtures is homogeneous?

(+2, -0.5)

a. Water and oil

b. Starch and sugar crystals

c. Graphite and charcoal

d. Alloys

88. In India, who among the following is the leader of the Council of Ministers and the leader of the Parliament?

(+2, -0.5)

- a. Home Minister of India
 - b. Prime Minister of India
 - c. Defence Minister of India
 - d. The President of India
-

89. Which Part of the Indian Constitution deals with Centre-State financial relations? (+2, -0.5)

- a. Part X
 - b. Part VIII
 - c. Part XII
 - d. Part XX
-

90. Which of the following muscular tissue is multinucleated? (+2, -0.5)

- a. Smooth muscle
 - b. Cardiac muscle
 - c. Skeletal muscle
 - d. Unstriated muscle
-

91. Which of the following plant group has hidden reproductive organs? (+2, -0.5)

- a. Bryophyta
- b. Thallophyta

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

92. Who launched the 'NARI' portal in New Delhi to provide important information about Government schemes? (+2, -0.5)

- a. Sushma Swaraj
 - b. Maneka Gandhi
 - c. Nirmala Sitharaman
 - d. Anupriya Patel
-

93. What is the name of North Korea's most powerful nuclear-capable intercontinental ballistic missile? (+2, -0.5)

- a. Hwasong-15
 - b. Hwasong-5
 - c. Hwasong-10
 - d. Hwasong-20
-

94. In January 2018, **SBI** planned to raise some money via BASEL-III Bonds. What is the deadline to meet the BASEL-III requirements? (+2, -0.5)

- a. June 2018
- b. December 2018
- c. March 2019

d. June 2019

95. On 11 October, 2017 the Supreme Court criminalized sex with underage wife (+2, -0.5)
aged below _____ years.

- a. 15
 - b. 18
 - c. 21
 - d. No option is correct.
-

96. Calculate the pressure (in Pa) if a thrust of 750 N is applied to an area of 5 (+2, -0.5)
 m^2 ?

- a. 37.5
 - b. 150
 - c. 75
 - d. 100
-

97. _____ is defined as the rate of doing work. (+2, -0.5)

- a. Energy
 - b. Force
 - c. Power
 - d. Momentum
-

98. _____ kills the germs present in the water. (+2, -0.5)

- a. Evaporation
 - b. Rehydration
 - c. Boiling
 - d. Desiccation
-

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

- A) In 2018 IPL auctions, Sunrisers Hyderabad retained David Warner.
 - B) In 2017 Pro Kabaddi League, Rohit Kumar played for Bengaluru Bulls.
 - C) Lewis Hamilton won the Formula One 2017 Azerbaijan Grand Prix.
- a. Only A
 - b. Only B
 - c. Both A and B
 - d. A, B and C
-

100. In HTML, _____ is a set of links designed as buttons. (+2, -0.5)

- a. Header area
- b. Menu bar
- c. Body of the page
- d. Footer area

Answers

1. Answer: a

Explanation:

The correct answer is **humanitarianism**.

★ Key Points

- Here, the word 'humanitarianism' is correctly spelt.
- humanitarianism'--> having concern for or helping to improve the welfare and happiness of people (a person who works to make other people's lives better)
 - **For e.g.-** She has been recognized as a great humanitarian for her efforts to end world hunger.

2. Answer: c

Explanation:

The correct answer is **CBA**.

★ Key Points

- **Part C is the first part** as it is a direct continuation of the phrase "On another day I was" as it focusses on what I was doing
- **Parts B and A follows C** as they deal with what happened when I was travelling. **B introduces the 'ticket-checking personnel' and C describes what he did.**

Hence the correct order is **CBA**.

★ Additional Information

For any general statement(sentence), the order is always Subject-Verb-Object.

3. Answer: a

Explanation:

The correct answer is **has taken**.

★ Key Points

The helping verbs 'has', 'have' and 'had' take V3 with them.

So, options 2 & 3 are eliminated at the outset.

We can see that the event is one that has happened in the recent past and hence would take the present perfect tense. *It is the form of the verb used for actions or events that have been completed or have happened in a period of time up to now.*

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

Correct Sentence: *In the post-liberalisation era, urbanisation **has taken** place at a rapid pace.*

★ Important Points

Present perfect: The **present perfect** is used to indicate a link between the **present** and the past. The time of the action is before now but not specified, and we are often more interested in the result than in the action itself.

4. Answer: b

Explanation:

The correct answer is **had failed**.

★ Key Points

We cannot use 'has' with I. The sentence is referring to an event in the past and from the options we can easily infer that 'had failed' is correct.

5. Answer: c

Explanation:

The correct answer is **Manifest**.

★ Key Points

- **Manifest** : in a way that is clear or obvious to the eye or mind.
 - For e.g.- Their sadness was **manifest** in their faces

★ Additional Information

The explanations of the other words:

- **Abstruse** – difficult to understand; obscure.
 - E.g.- The subject is too **abstruse** to enlarge further upon here
 - **Clandestine** – kept secret or done secretly, especially because illicit.
 - E.g.- The group held weekly **clandestine** meetings in a church.
 - **Covertly** – without being openly acknowledged or displayed; secretly.
 - E.g.- Terrorists have been operating **covertly** in England.
-

6. Answer: c

Explanation:

The correct answer is **Appertain**.

★ Key Points

- **Appertain** : be appropriate or applicable

- Example: *The answers generally **appertain** to improvements in the standard of service.*

★ Additional Information

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

- **Futile** – incapable of producing any useful result; pointless
 - Example: *They made a last **futile** attempt to make him change his mind.*
- **Extraneous** – existing on or coming from the outside
 - Example: *When the transmitter pack is turned off no **extraneous** noise is heard.*
- **Irrelative** – unconnected or unrelated
 - Example: *These **irrelative** points only to serve to dilute what is otherwise a strong case.*

7. Answer: c

Explanation:

The correct answer is **No longer in difficulty or trouble**.

★ Key Points

Off the hook means to allow (someone who has been caught doing something wrong or illegal) to go without being punished. Option 3 is nearest in meaning to the explanation of the idiom.

For eg. If **you** ask me, they let him **off the hook** too easily

8. Answer: b

Explanation:

★ Key Points

The correct answer is **You should not make plans that depend on something good happening before you know that it has actually happened.**

For eg. *Why don't you order the washing machine after you get your first salary?*
Don't count your chickens before they hatch.

9. Answer: c

Explanation:

The correct answer is **over**.

★ Key Points

Let's find out the uses of the following prepositions:-

- **onto**: moving to a location on the surface of.
- **above**: in extended space over and not touching.
- **over**: extending directly upwards from
- **in**: expressing the situation of something that is or appears to be enclosed or surrounded by something else.

★ Important Points

Ponder: think about (something) carefully, especially before making a decision or reaching a conclusion

Ponder takes the preposition 'over' and 'about' with it.

10. Answer: c

Explanation:

The correct answer is **at**.

★ Key Points

The 'world at large' is a phrase which means '**most people**'.

The other prepositions are neither grammatically suitable nor contextually.

11. Answer: b

Explanation:

The correct answer is **choose**.

★ Key Points

Since '*we*' is the *subject of the sentence*, it must be followed by a verb.

★ Additional Information

Option 1 & 3 are nouns and option 4 is used with a helping verb.

12. Answer: b

Explanation:

The correct answer is **important**.

★ Key Points

Here, concept of adjective is brought under consideration. Since, "increasingly" is an adverb, and an adverb is used for verb and adjective, the adjective **important** is the appropriate answer here

★ Additional Information

- **Importances** is not a word in the English vocabulary.
- **Importance** is a noun.
- **Importantly** is an adverb.

13. Answer: d

Explanation:

The correct answer is **with**.

★ Key Points

On looking at the above given passage, we observe that it is based upon way of utilizing technology in modern times.

The starter explains that society and people have developed gradually with changing times.

Hence, *a relationship is being shown with time here.*

Thus, the preposition **with** should be used.

14. Answer: b

Explanation:

The correct answer is **Dilemma**.

★ Key Points

The correct spelling is 'dilemma'.

Dilemma : a difficult situation or problem

Example: *The president is clearly in a dilemma about/over how to tackle the crisis.*

15. Answer: b

Explanation:

The correct answer is **She said that she would visit the temple.**

★ Key Points

The sentence is given in direct speech with the reporting verb in the simple past tense and the verb in the reported speech in the simple future tense.

When we convert the sentence from the direct to the indirect speech:

- The quotation marks are removed and the that-clause is introduced.
- As the *reporting verb is in the past tense*, all verbs in the reported speech undergo a backshift in tense. Here, simple present 'will' changes into simple past 'would'

The correct sentence thus formed- She said that she would visit the temple.

16. Answer: b

Explanation:

The correct answer is **The cafe was lined by the youngsters.**

★ Key Points

The given sentence is in the active voice with a verb in the simple past tense.

When we convert such a sentence from the active to the passive voice:

- The *subject and object of the active voice become the object and subject of the passive voice respectively.*
- The *past participle is used along with 'by'.*
- The rest of the sentence does not undergo any change.

★ Important Points

Structure for the changed sentence : Object+Past participle+by+subject

17. Answer: d

Explanation:

The correct answer is **PQR**.

★ Key Points

- A sentence does not end with a connector **so** or adjective **environmental**.
 - Thus, options 1 & 3 are incorrect.
- In option 2, the sequence QP is wrong, because an adjective is followed by a noun, but here we have an article in place of an adjective.
 - So, option 2 is incorrect.

Thus, **option 4 i.e. PQR** is the correct answer.

18. Answer: a

Explanation:

The correct answer is **Stuffy**.

★ Key Points

Airy: of a room or building) spacious, well lit, and well ventilated

Stuffy : (of a place) lacking fresh air or ventilation

Thus we can see that 'airy' and 'stuffy' are antonyms.

★ Additional Information

The explanations of the other words:

- **Graceful** : having or showing grace or elegance.
- **Indifferent** : having no particular interest or sympathy; unconcerned.

- **Light** : not heavy

19. **Answer: d**

Explanation:

The correct answer is **Free**.

★ Key Points

- **Arraign** : call or bring (someone) before a court to answer a criminal charge
- **Free** : not or no longer confined or imprisoned

Thus we can see that 'arraign' and 'free' are antonyms.

★ Additional Information

- **Accuse** : charge (someone) with an offence or crime
- **Charge** : formally accuse (someone) of something, especially an offence under law
- **Indict** : formally accuse of or charge with a crime.

20. **Answer: c**

Explanation:

The correct answer is **Sinuous**.

★ Key Points

Snaky : like a snake in appearance; long and sinuous

Sinuous : having many curves and turns; snaky

Thus we can see that 'snaky' and 'sinuous' are synonyms.

★ Additional Information

The explanations of the other words:

- **Clever** : quick to understand, learn, and devise or apply ideas; intelligent
- **Mild** : not severe, serious, or harsh
- **Wild** : a natural state or uncultivated or uninhabited region; not tamed

21. Answer: c

Explanation:

The correct answer is **Shrewd**.

★ Key Points

Perspicacious: having a ready insight into and understanding of things

Shrewd: having or showing sharp powers of judgement; astute

Thus we can see that 'perspicacious' and 'shrewd' are synonyms.

★ Additional Information

The explanations of the other words:

- **Obscure** - not discovered or known about; uncertain; unclear.
- **Shrewd** - sharp; acute; clever; intelligent
- **Indistinct** - not clear or sharply defined.

Clearly, option 3 i.e. **shrewd** gives the most similar meaning.

22. Answer: c

Explanation:

The correct answer is whom

★ Key Points

Here, the concept of relative pronouns is used.

Let's find out the uses of the following-

- **who** - the person that; whoever. (related to persons)- subject pronoun.
- **whom** - used instead of 'who' as the object of a verb or preposition- object pronoun
- **which** - used for a thing or animal ie. any non-living entity

★ Important Points

Here, 'server' is a person but not defined male or female. So, options 2 & 4 are eliminated. And, it is used after preposition, so shows it is an object pronoun.

Thus, **option 3 i.e. whom** is the correct answer.

23. Answer: b

Explanation:

The correct answer is **go through**.

★ Key Points

- **Go through:** search through or examine something, especially methodically
 - Example: *The deal **went through** as agreed.*

★ Additional Information

The explanations of the other words and phrases:-

- **Set out:** begin a journey
 - Example: *We **set out** from New York on Friday for Egypt.*
- **Look up:** search for and find a piece of information in a book or database

- Example: *If you don't know what the word means, **look it up** in a dictionary.*
- **Imagine:** form a mental image or concept of
 - Example: *I can't **imagine** what he wants from us.*

★ Important Points

This question tests your concept and knowledge of phrasal verbs.

A **phrasal verb** is a combination of words (a **verb** + a preposition or **verb** +adverb) that when used together, usually take on a different meaning to that of the original **verb**.

For eg. Run into, Pick up, Turn on, etc.

24. Answer: a

Explanation:

The correct answer is 1.

★ Key Points

Here, the concept of subject-verb agreement is touched upon.

Since 'a balanced diet' is a singular subject, a singular verb should follow it.

Thus, we need to replace **provide** with **provides to make the sentence correct.**

Hence, option 1 is the correct answer.

The correct sentence: *A balanced diet is one that **provides** an adequate intake of energy and nutrients for the maintenance of the body and good health.*

25. Answer: c

Explanation:

The correct answer is 3.

★ Key Points

- 'we promote peace and happiness **to** all.'
- Here, the **concept of the preposition** has been touched upon.
- The **correct preposition** to follow the verb 'promote' would be 'among' .
 - E.g.- The conquered territories were portioned out **among** the victors.

Correct sentence: 'When we respect everyone's spiritual identity, we promote peace and happiness **among** all.'

★ Hint

From the word 'all' in the sentence, we can gauge that the correct preposition would be 'among'.

26. Answer: d

Explanation:

Sum of the sides of Hexagon is known as Perimeter. Similarly, sum of the sides of Rhombus is also known as Perimeter.

Note: Here on RHS geometrical shape is given. In case of Circle : Circumference, Circle is given on LHS. So cannot be the correct option.

Thus the related pair is Perimeter : Rhombus.

27. Answer: c

Explanation:

The logic here is as follows,

$$45 \rightarrow 4 \times 5 = 20$$

Similarly,

$$46 \rightarrow 4 \times 6 = 24$$

Thus 46 is related to 24.

28. Answer: c

Explanation:

The logic here is as follows,

$$I + 7 = P$$

$$M + 7 = T$$

$$O + 7 = V$$

Similarly,

$$K + 7 = R$$

$$O + 7 = V$$

$$Q + 7 = X$$

Thus, KOQ is related to RVX.

29. Answer: d

Explanation:

The logic here is as follows,

On LHS class of animal is given and on RHS animal belonging to that class is given.

But in Crocodile – Reptile, on LHS animal is given and on RHS his class.

Thus, the pair Crocodile – Reptile is the odd word pair.

30. Answer: d

Explanation:

The logic here is as follows,

1) $58 - 62 \rightarrow 62 - 58 = 4$

2) $18 - 22 \rightarrow 22 - 18 = 4$

3) $24 - 28 \rightarrow 28 - 24 = 4$

4) $36 - 42 \rightarrow 42 - 36 = 6$

Thus, the odd number pair is 36 – 42.

31. Answer: a

Explanation:

The logic here is as follows,

1) $EHL \rightarrow E + 3 = H, H + 4 = L$

2) $JMP \rightarrow J + 3 = M, M + 3 = P$

3) $SVY \rightarrow S + 3 = V, V + 3 = Y$

4) $QTW \rightarrow Q + 3 = T, T + 3 = W$

Thus, the odd letters are EHL.

32. Answer: a

Explanation:

The correct dictionary order is as follows,

5) Jacket

4) Jagged

1) Jailor

3) Jam

2) Javelin

Thus, the last word is Javelin.

33. Answer: a

Explanation:

The logic here is as follows,

$$6578 - 4381 = 2197 = 13^3$$

$$4381 - 2653 = 1728 = 12^3$$

So the next number should have difference of $1331 = 11^3$

$$\text{So } 2653 - 1331 = \mathbf{1322}$$

$$\text{That is, } 2653 - 1322 = 1331$$

$$1322 - 322 = 1000 = 10^3$$

Thus, the missing number is 1322.

34. Answer: a

Explanation:

The logic here is as follows,

$$F + 5 = K, K + 5 = P, P + 5 = U, U + 5 = Z$$

$$H + 5 = M, M + 5 = R, R + 5 = W, W + 5 = B$$

Thus, the next term in the series is ZB.

35. Answer: d

Explanation:

Six boys are sitting in a row facing south.

1) Gaurav is second to the right of Akash who is at one of the end.

Right End _ _ _ Gaurav _ Akash **Left End**

2) Prem is at fourth position to the left of Raman.

Right End Raman _ _ Gaurav Prem Akash **Left End**

3) Jatin and Nitin sit together.

Right End Raman Jatin/Nitin Gaurav Prem Akash **Left End**

As the position of Jatin is not confirmed, we cannot determine the number of boys that are sitting to the left of Nitin.

36. Answer: d

Explanation:

The word Road cannot be formed as there is no letter 'o' in the given word Hardship.

37. Answer: b

Explanation:

The logic here is as follows,

$$CAB = 3 + 1 + 2 = 6$$

$$LAN = 12 + 1 + 14 = 27$$

Similarly,

$$FAN = 6 + 1 + 14 = 21$$

Thus, FAN is coded as 21.

38. Answer: c

Explanation:

Symbols	÷	-	+	×
Meaning	+	×	÷	-

Given expression: $17 - 8 + 2 \times 9 \div 8$

Changing operators: $17 \times 8 \div 2 - 9 + 8$

Applying BODMAS rule we get,

$$17 \times 8 \div 2 - 9 + 8 = 17 \times 4 - 9 + 8 = 68 - 9 + 8 = 67$$

Thus, answer is 67.

39. Answer: d

Explanation:

Given expression: $17 \times 6 + 2 - 9 \div 2 = 44$

Let's check each option:

1) - and +

Expression becomes:

$$17 \times 6 - 2 + 9 \div 2$$

$$= 102 - 2 + 4.5$$

$$= 104.5$$

2) $\div$ and $\times$

Expression becomes:

$$17 \div 6 + 2 - 9 \times 2$$

$$= 2.8 + 2 - 18$$

$$= -13.2$$

3) $\times$ and -

Expression becomes:

$$17 - 6 + 2 \times 9 \div 2$$

$$= 17 - 6 + 9$$

$$= 20$$

$$4) + \text{ and } \div$$

Expression becomes:

$$17 \times 6 \div 2 - 9 + 2$$

$$= 51 - 9 + 2$$

$$= 44$$

Thus, after interchanging $+$ and $\div$ the expression becomes correct.

40. Answer: d

Explanation:

The logic here is as follows,

$$1!9 \rightarrow 1 - 9 = -8, -8 \times 10 = -80$$

$$2!8 \rightarrow 2 - 8 = -6, -6 \times 10 = -60$$

$$8!1 \rightarrow 8 - 1 = 7, 7 \times 10 = 70$$

Similarly,

$$3!2 \rightarrow 3 - 2 = 1, 1 \times 10 = 10$$

Thus $3!2$ equals to 10.

41. Answer: a

Explanation:

Here the series have letters 'Q' and 'P' placed alternately along with the letter 'R' which shifts 1 position towards right in each next term.

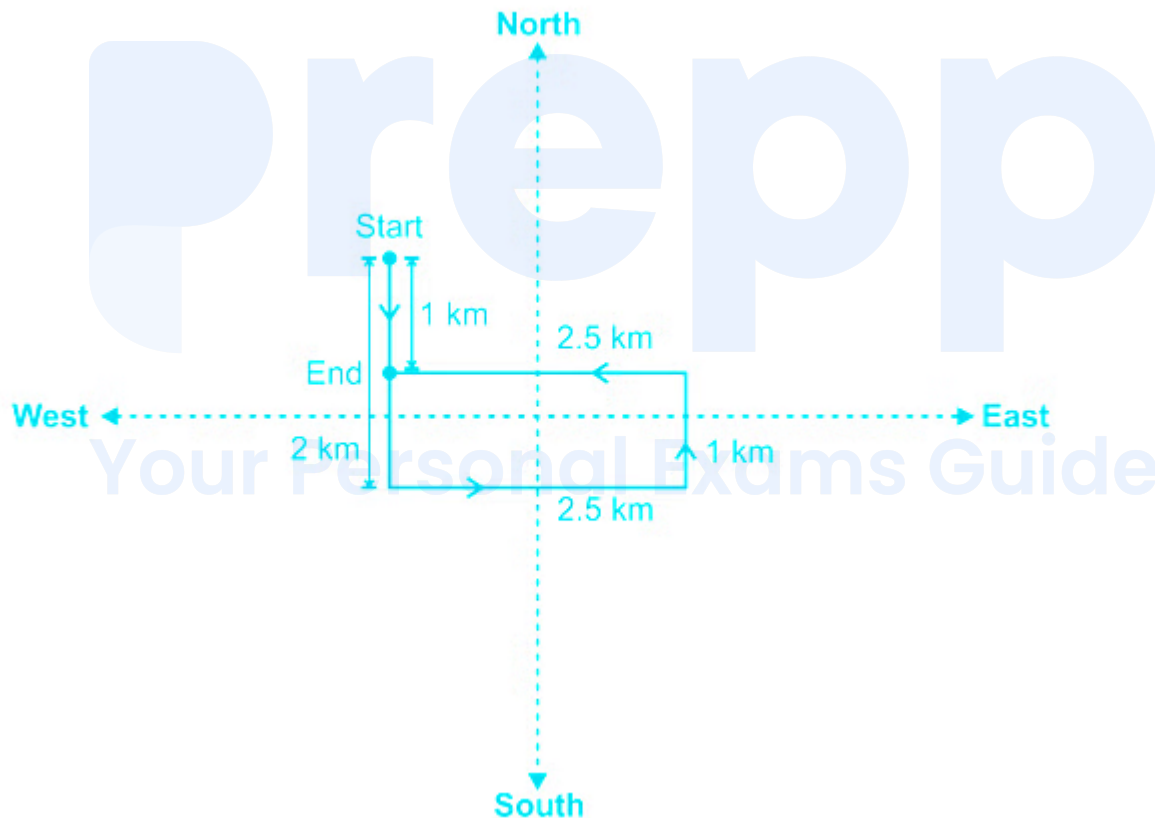
In the given last term 'R' position is 6th, so in next term 'R' will be at 7th position.

Thus, the next term in the series will be QPQPQPRQP.

42. Answer: d

Explanation:

The distance covered by the cart is as shown below,

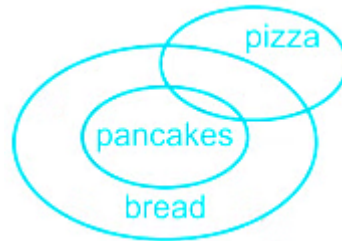


Thus the vendor is 1 km towards south from his starting point.

43. Answer: b

Explanation:

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



Conclusion:

I. No bread are pizzas $\rightarrow$ False

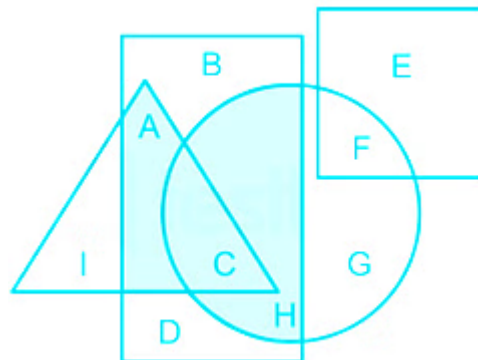
II. Some pizzas are bread $\rightarrow$ True

Thus, only statement II follows.

44. Answer: a

Explanation:

Set of letters represents Authors who are either Food stylists or Potters is represented as follows;



Thus, the answer is ACH.

45. Answer: d

Explanation:

The logic here is as follows,

$$H - 6 = B, B - 6 = V, V - 6 = P, P - 6 = J$$

$$P - 6 = J, J - 6 = D, D - 6 = X, X - 6 = R$$

$$U - 6 = O, O - 6 = I, I - 6 = C, C - 6 = W$$

Thus, the next term in the series is JRW.

46. Answer: c

Explanation:

The logic here is as follows,

$$29 - 2 = 27,$$

$$27 - 3 = 24,$$

$$24 - 4 = 20,$$

$$20 - 5 = 15,$$

$$15 - 6 = 9$$

Thus, the missing number in the series is 20.

47. Answer: c

Explanation:

The pattern followed here is:

$$4 + 9 = 13 \text{ and } 13 + 4 = 17$$

$$6 + 9 = 15 \text{ and } 15 + 4 = 19$$

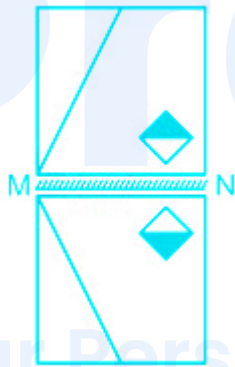
$$15 + 10 = 25 \text{ and } 25 + 3 = 28$$

$$11 + 9 = 20 \text{ and } 20 + 4 = 24$$

Hence, (15, 28, 25) is the odd one out.

48. Answer: d

Explanation:



Thus image at option 4 is the mirror image.

49. Answer: c

Explanation:

In the given open cube following faces will be opposite to each other,

1)



and



will be opposite to each other

2)



and



will be opposite to each other

3)



and



will be opposite to each other

Thus Cube at option 3 cannot be formed.

50. Answer: c

Explanation:

Let's check all the options,

1) 20, 67, 21, 78 → CRLP

2) 24, 66, 34, 79 → BOEO

3) 24, 31, 96, 14 → BANE

4) 23, 78, 11, 99 → LPKX

Thus, the set '24, 31, 96, 14' represents the word BANE.

51. Answer: a

Explanation:

Given:

Sum of the fraction (a) and its reciprocal ($1/a$) is $113/56$

Calculation:

Let the fraction be (x/y) (Denote this by ' a ')
 $a + (1/a) = 113/56$

$$a + (1/a) = 113/56$$

$$\Rightarrow (a^2 + 1)/a = 113/56$$

$$\Rightarrow 56a^2 - 113a + 56 = 0$$

$$\Rightarrow 56a^2 - 49a - 64a + 56 = 0$$

$$\Rightarrow 7a(8a - 7) - 8(8a - 7) = 0$$

$$\Rightarrow (7a - 8)(8a - 7) = 0$$

$$\Rightarrow (7a - 8) = 0 \text{ or } (8a - 7) = 0$$

$$\Rightarrow a = 7/8 \text{ or } 8/7$$

$\therefore$ Required Fraction = $(7/8)$

★ Shortcut Trick

By hit and trial method.

Considering option(1), we have

Fraction = $7/8$

It's reciprocal = $8/7$

Sum = $7/8 + 8/7 = (49 + 64)/56 = 113/56$ satisfied

So, option 1 is correct answer.

52. Answer: c

Explanation:

Given:

The sum of the squares of three consecutive odd numbers

Calculation:

If 'n' is an odd number, then let the three consecutive odd numbers be $(n - 2)$, n , $(n + 2)$

From the given condition, $(n - 2)^2 + n^2 + (n + 2)^2 = 2195$

$(n^2 - 4n + 4) + n^2 + (n^2 + 4n + 4) = 2195$

$\Rightarrow 3n^2 + 8 = 2195$

$\Rightarrow 3n^2 = 2195 - 8 = 2187$

$\Rightarrow n^2 = 2187/3 = 729$

$$\Rightarrow n = \sqrt{729} = 27$$

So, the numbers are $(27 - 2)$, 27 , $(27 + 2) = 25, 27, 29$

53. Answer: c

Explanation:

Calculation:

Substituting the value of $x = 8$ and $y = 2$ in the given equation we have $8 + (4 \times 2) - 2k = 0$

$$\Rightarrow 8 + 8 - 2k = 0$$

$$\Rightarrow 2k = 16$$

$$\Rightarrow k = (16/2) = 8$$

$$\text{Value of } k^2 = 8^2 = 64$$

$$\therefore \text{Required value} = 64$$

54. Answer: d

Explanation:

From the equation, notice that if both x and y are negative, then both $7x$ and $12y$ will be negative

The sum of two negative values ($7x$ and $12y$) cannot give a positive result (16)

So, the given line does not pass through the third quadrant only, where both x and y are negative

$$\therefore \text{Required answer} = \text{Quadrant (I, II, IV)}$$

★ Alternate Method

In equation $7x + 12y = 16$

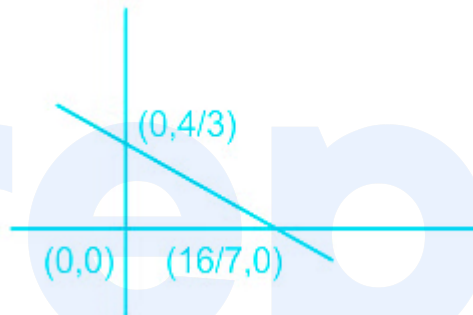
Put $x = 0$, then $12y = 16$

$$\Rightarrow y = \frac{4}{3}$$

Put $y = 0$, then $7x = 16$

$$\Rightarrow x = \frac{16}{7}$$

Plotting the graph for the points $(0, \frac{4}{3})$ and $(\frac{16}{7}, 0)$

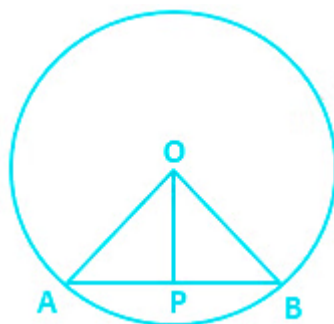


$\therefore$ The equation $7x + 12y = 16$ passes through the I, II, IV quadrants

55. Answer: a

Explanation:

Calculation:



Let P be the mid-point of AB, So $AP = PB$

$OP = 12 \text{ cm} = \text{distance of chord from centre}$ and $AO = 13 \text{ cm} = \text{Radius}$

From right-angled triangle OPA, by Pythagoras theorem,

$$\Rightarrow AO^2 = OP^2 + AP^2$$

$$\Rightarrow AP^2 = AO^2 - OP^2$$

$$\Rightarrow AP^2 = 169 - 144$$

$$\Rightarrow AP^2 = 25$$

$$\Rightarrow AP = 5 \text{ cm}$$

$$\text{Now, } AB = AP + PB = AP + AP = 5 + 5 = 10 \text{ cm}$$

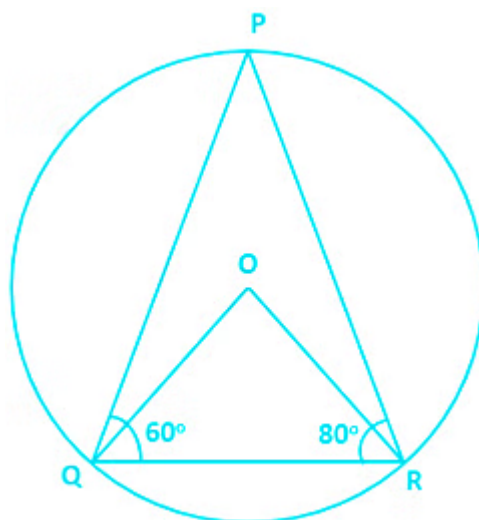
$$\text{Length of the chord (Full)} = 2 \times 5 = 10 \text{ cm}$$

$$\therefore \text{Required length} = 10 \text{ cm}$$

56. Answer: b

Explanation:

Calculation:



From the figure, $\angle PQR + \angle QRP + \angle QPR = 180^\circ$

$$\Rightarrow 60^\circ + \angle QPR + 80^\circ = 180^\circ$$

$$\Rightarrow \angle QPR = 180^\circ - (60^\circ + 80^\circ) = 180^\circ - 140^\circ = 40^\circ$$

Angle subtended (QOR) by arc OR at the centre = $2 \times \angle QPR = 2 \times 40^\circ = 80^\circ$

$\therefore$ Required value = 80°

57. Answer: b

Explanation:

Calculation:

Let the number be 'X'

If the number is reduced by 35%, then $X - (35\% \text{ of } X) = 416$

$$\Rightarrow X - (35/100) X = 416$$

$$\Rightarrow (65/100) X = 416$$

$$\Rightarrow X = (100/65) \times 416 = 640$$

To find $[640 + (\text{what percent of } 640)] = 876.8$

$$\text{Required Percentage} = (876.8 - 640)/640 = (236.8/640) \times 100\% = 0.37 \times 100\% = 37\%$$

$\therefore$ Required answer = 37%

★ Shortcut Trick

If no. reduced by 35%, it becomes 416

$$\Rightarrow 65\% = 416$$

$$\Rightarrow 100\% = (416/65) \times 100 = 640$$

Now, Increase = $876.8 - 640 = 236.8$

% Increase = $(236.8/640) \times 100 = 37\%$

58. Answer: a

Explanation:

Calculation:

Let the values of p, q, r be 2k, 3k, 5k respectively (Where 'k' is some arbitrary constant)

Substituting the values in the given expression, we get

$$(2k + 3k + 5k)/[(3 \times 2k) + 3k - 5k] = 10k/(6k + 3k - 5k) = 10k/4k = (5/2)$$

$\therefore$ Required Ratio = $5/2$

59. Answer: c

Explanation:

Calculation:

Using the concept of allegations formula,

$$\frac{(\text{Amount lent at } 10\%)}{(\text{Amount lent at } 4\%)} = \frac{(\text{Average interest} - \text{Lesser Interest})}{(\text{Higher Interest} - \text{Average Interest})}$$

$$\Rightarrow \frac{(\text{Amount lent at } 10\%)}{(\text{Amount lent at } 4\%)} = \frac{(6.4 - 4)}{(10 - 6.4)} = \frac{2.4}{3.6} = \frac{24}{36} = \frac{2}{3}$$

$$\Rightarrow \text{Amount lent at } 10\% \text{ interest} = 60000 \times \left[\frac{2}{(2 + 3)}\right] = 60000 \times \left(\frac{2}{5}\right) = 12000 \times 2 = \text{Rs. } 24000$$

⇒ Amount lent at 4% interest = Rs. $(60000 - 24000) = \text{Rs. } 36000$

∴ Required answers are 36000, 24000

60. Answer: a

Explanation:

Given:

Average of the runs of 133 players of a team is 38

Average of runs of the male players is 43 and the average of runs of the female players is 24.

Formula used:

Sum of the runs of the team (Total Runs) = Average × Number of players in the Team

Calculations:

Total Runs scored by the team = $38 \times 133 = 5054$

Let the number of male players be 'M' and number of female players be 'F'

Number of runs scored by the male and female players together = $43M + 24F$

$$\Rightarrow 43M + 24F = 5054 \quad \text{-----(1)}$$

$$\Rightarrow M + F = 133 \quad \text{-----(2)}$$

Substituting $M = (133 - F)$ in Equation 1, we get

$$43(133 - F) + 24F = 5054$$

$$\Rightarrow 5719 - 43F + 24F = 5054$$

$$\Rightarrow 43F - 24F = 5719 - 5054$$

$$\Rightarrow 19F = 665$$

$$\Rightarrow F = 665/19 = 35$$

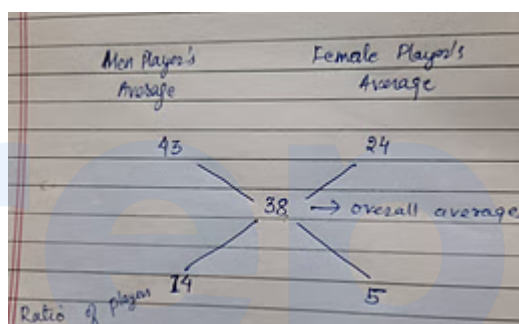
$$M = 133 - 35 = 98$$

$$\text{Ratio of the total runs of Male to Female players} = (98 \times 43)/(35 \times 24) = 301/60$$

$$\therefore \text{Required Ratio} = 301/60$$

★ Shortcut Trick

Using allegations method, we get



$$\text{Total number of players} = 133$$

$$\Rightarrow 19 \text{ units} = 133$$

$$\Rightarrow 1 \text{ unit} = 7$$

$$\text{So, number of men player's} = 14 \text{ units} = 14 \times 7 = 98$$

$$\text{Total runs of men player's} = 43 \times 98 = 4214$$

$$\text{Again, no. of female players} = 5 \times 7 = 35$$

$$\text{Total runs of female players} = 35 \times 24 = 840$$

$$\therefore \text{Required ratio} = 4214 : 840 = 301 : 60$$

61. Answer: c

Explanation:

Given:

Principal (P) = Rs. 4000,

Amount (A) = Rs. 5800,

Time Period (T) = 3 years

Formula used:

$$\text{S.I.} = P \times R \times T/100$$

where P → Principal

R → Rate of interest

T → Time period

In case of Compound Interest

$$\text{Amount} = P [1 + (R/100)]^T$$

Calculation:

$$\text{S.I.} = 5800 - 4000 = \text{Rs.}1800$$

$$\Rightarrow \text{S.I.} = PRT/100$$

$$\Rightarrow 1800 = (4000 \times R \times 3)/100$$

$$\Rightarrow R = 15\%$$

Amount in case of Compound Interest

$$\Rightarrow 4000 [1 + (15/100)]^2 = 4000 [1 + 0.15]^2$$

$$\Rightarrow 4000 (1.15)^2 = 4000 \times 1.3225 = \text{Rs.} 5290$$

$$\therefore \text{Final Amount} = \text{Rs.} 5290$$

★ Shortcut Trick

Ratio of Principal to Amount = $4000 : 5800 = 20 : 29$

So, Interest % for 3 years = $9/20 \times 100 = 45\%$

Interest % for 1 year = $45\%/3 = 15\%$

Now, In case of C.I., Ratio of principal to Amount

$15\% = 3/20$

1st year = $20 : 23$

2nd year = $20 : 23$

$\Rightarrow 20 \times 20 \text{ units} = \text{Rs } 4000$

$\Rightarrow 1 \text{ unit} = \text{Rs. } 10$

$\Rightarrow 23 \times 23 \text{ units} = 10 \times 23 \times 23 = \text{Rs. } 5290$

62. Answer: a

Explanation:

Given:

A sells vegetables at a price, 35% more than its cost price and for weighing uses a weight which is 10% less than the article weight

Calculation:

Let the cost of 1 kg vegetable = Rs. 100

But the seller sells 900 gm. Instead of 1 kg which costs Rs. 90

Given, Profit% = 35%

So, selling price = $100 + (35/100) \times 100 = \text{Rs. } 135$

Actual profit percentage = $\left[\frac{(135 - 90)}{90}\right] \times 100 = 50\%$

$\therefore$ the correct answer is 50%.

★ Alternate Method

Let C.P of 1000 gm be Rs. 100

$\Rightarrow$ S.P of 1000 gm = Rs. 100 $\times$ (135/100) = Rs. 135

Now, he uses a weight which is 10% less

So, he uses weight = 1000 gm $\times$ (90/100) = 900 gm

So, Cost price of 900 gm = Rs.90

Now, Profit = Rs. (135 - 90) = Rs. 45

Profit % = $\left(\frac{45}{90}\right) \times 100\%$

$\Rightarrow 50\%$

$\therefore$ The overall profit % is 50%

63. Answer: b

Explanation:

Given:

Marked Price = Rs. 14300,

Discount = 36.36% = $4 \times 9.09\% = 4 \times \left(\frac{1}{11}\right) = \frac{4}{11}$

Formula used:

S.P = Marked Price $(1 - \text{Discount}\%)$

Calculation:

$$S.P = 14300 \{1 - (4/11)\}$$

$$\Rightarrow 14300 \times (7/11)$$

$$\Rightarrow 1300 \times 7 = \text{Rs. } 9100$$

$\therefore$ **Selling Price = Rs. 9100**

64. Answer: a

Explanation:

Calculation:

Squaring all the terms in the given problem

$$(\sqrt{15} + \sqrt{7})^2 = (15 + 7 + 2\sqrt{15} \times \sqrt{7}) = (22 + 2\sqrt{105}) = 22 + (2 \times 10.25) = 22 + 20.5 = 42.5$$

$$(2\sqrt{22})^2 = 4 \times 22 = 88$$

$$(\sqrt{17} + \sqrt{5})^2 = (17 + 5 + 2\sqrt{17} \times \sqrt{5}) = (22 + 2\sqrt{85}) = 22 + (2 \times \text{approx. } 9.2) = 22 + 18.4 = 40.4$$

$$(\sqrt{20} + \sqrt{2})^2 = (20 + 2 + 2\sqrt{20} \times \sqrt{2}) = (22 + 2\sqrt{40}) = 22 + (2 \times \text{approx. } 6.4) = 22 + 12.8 = 34.8$$

Option 1:

We can see from above that $(2\sqrt{22}) > (\sqrt{15} + \sqrt{7})$

Option 2:

$(\sqrt{17} + \sqrt{5}) < (\sqrt{20} + \sqrt{2})$ (This is incorrect)

$\therefore$ **Correct Option is 1**

65. Answer: c

Explanation:**Concept used:**

Using the concept of man-days,

$$(M_1 \times D_1 \times H_1) = (M_2 \times D_2 \times H_2)$$

where 'M' represents the number of men,

D = number of Days,

H = number of Hours

Calculation:

Substituting all the values in the formula,

$$(60 \times 15 \times 8) = (72 \times 20 \times H)$$

$$\Rightarrow H = (60 \times 15 \times 8) / (72 \times 20) = 5$$

$\therefore$ Required number of hours = 5

66. Answer: c**Explanation:****Given:**

Speed of 1st train = 23 km/hr

Speed of 2nd train = 77 km/hr

Time taken by 2nd train to cross the 1st train = 40 sec

Formula used:

If two objects are moving in the same direction with speeds S_1 and S_2 respectively, then

$$\text{Relative Speed} = S_1 - S_2$$

If two objects are moving in the opposite direction with speeds S_1 and S_2 respectively, then

$$\text{Relative Speed} = S_1 + S_2$$

$$\text{Distance} = \text{Speed} \times \text{Time}$$

Calculation:

$$\text{Relative speed} = (77 - 23) = 54 \text{ kmph} = 54 \times (5/18) \text{ m/sec} = 15 \text{ m/sec}$$

When the faster train crossed the slower train, Distance covered is the length of the train.

$$\text{Distance} = 15 \times 40 = 600 \text{ meters}$$

$$\therefore \text{Length of the faster train} = 600 \text{ meters}$$

67. Answer: d

Explanation:

Calculation:

Actual angle made by all the students (Number of students = 720) at the centre of the circle = 360°

Measure of the central angle of the sector representing the Electrical course

$$\Rightarrow 160 \times (360^\circ)/720 = 80^\circ$$

$$\therefore \text{Required answer} = 80^\circ$$

★ Shortcut Trick

Here, Ratio of Electrical course : Total students

$$\Rightarrow 160 : 720 = 2 : 9 = 2/9$$

Here, 9 units = 360°

$$\Rightarrow 1 \text{ units} = 40^\circ$$

$$\Rightarrow 2 \text{ units} = 80^\circ$$

68. Answer: c

Explanation:

Calculation:

Total number of students enrolled in the college = Sum of number of students in (IT + Mechanical + Electrical + Electronics + Chemical + Computers + Petrochemicals)

$$\Rightarrow 100 + 80 + 160 + 120 + 60 + 20 + 180 = 720$$

$\therefore$ Required answer = 720

69. Answer: d

Explanation:

Calculation:

From the given Pie chart, the most number of students enrolled is 180 which is for Petrochemicals course

$\therefore$ Required answer = Petrochemicals

70. Answer: a

Explanation:**Calculation:**

Total number of students = 720

Average annual fees paid by each student to enroll in this college is Rs 1.2

Total annual fees (in Rs lakhs) collected by the college

$$\Rightarrow 720 \times 1.2 = 864 \text{ lakhs}$$

$\therefore$ Correct option is 1

71. Answer: d**Explanation:****Given:**

The perimeter of the square = 34 cm

Formula used:

Perimeter of a square = $4a$

Area of a square = a^2

where $a \rightarrow$ side of a square

Calculation:

Perimeter = 34

$$\Rightarrow a = 34/4 = 8.5 \text{ cm}$$

Area of the square = $8.5^2 = 72.25 \text{ cm}^2$

$\therefore$ Required area = 72.25 cm^2

72. Answer: a

Explanation:

Given:

Diameter of a circle = 28 cm

Formula used:

Circumference of a circle = $2\pi r$

Diameter (d) = $2r$

where $r \rightarrow$ radius of a circle

Calculation:

Circumference = $\pi d = (22/7) \times 28 = 22 \times 4 = 88$ cm

$\therefore$ Correct option is 1

73. Answer: c

Explanation:

Given:

Diameter of the hemisphere = 7 cm

Radius = $7/2 = 3.5$ cm

Formula used:

Volume of a hemisphere = $(2/3) \pi r^3$

where $r \rightarrow$ radius of a hemisphere

Calculation:

$$\text{Volume of a hemisphere} = \frac{2}{3} \times \left(\frac{22}{7}\right) \times 3.5^3 = \left(\frac{44}{21}\right) \times 3.5^3 = 89.83 \text{ cm}^3$$

$$\therefore \text{Required Volume} = 89.83 \text{ cm}^3$$

74. Answer: b

Explanation:

Given:

$$\angle P = 60^\circ$$

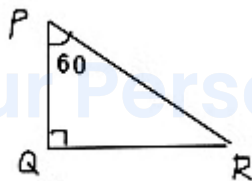
Concept used:

$$\text{sum of angles of triangle} = 180^\circ$$

$$\text{i.e., } (\angle P + \angle Q + \angle R = 180^\circ)$$

$$\sec 30^\circ = 2/\sqrt{3}$$

Calculation:



In triangle PQR, $\angle Q = 90^\circ$, $\angle P = 60^\circ$

$$\Rightarrow \angle R = 30^\circ$$

$$\therefore \sec 30^\circ + \frac{1}{2} = \frac{2}{\sqrt{3}} + \frac{1}{2} = \frac{(4 + \sqrt{3})}{2\sqrt{3}}$$

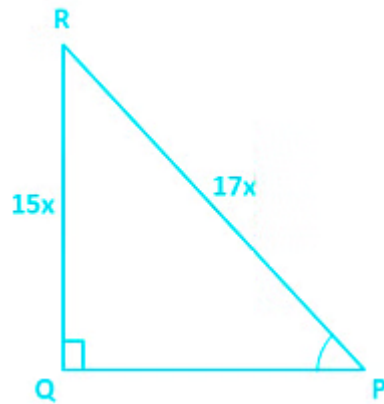
75. Answer: d

Explanation:

Calculation:

We know that $\operatorname{cosec} P = \text{hypotenuse} / \text{perpendicular} = PR / RQ = 17 / 15$

Let the sides QR and PR be $15X$ and $17X$ respectively



For the right-angled triangle, as per Pythagoras theorem,

$$QR^2 + PQ^2 = PR^2$$

$$\Rightarrow (15X)^2 + (PQ)^2 = (17X)^2$$

$$\Rightarrow PQ^2 = 289X^2 - 225X^2 = 64X^2$$

$$\Rightarrow PQ = \sqrt{64X^2} = 8X$$

$$\text{Given } PQ = 0.8 = 8X$$

$$\Rightarrow X = 0.8 / 8 = 0.1 \text{ cm}$$

$$\text{Length of } QR = 15x = (15 \times 0.1) = 1.5 \text{ cm}$$

$$\therefore QR = 1.5 \text{ cm}$$

76. Answer: a

Explanation:

The correct answer is marginal revenue product

★ Key Points

- Economic theory states that a **profit maximizing firm will hire workers up to the point where the marginal revenue product is equal to the wage rate.**
 - Because it is not efficient for a firm to pay its workers more than it will earn in revenues from their labors. Therefore, demand for labour is the same as the marginal revenue product.
-

77. Answer: a

Explanation:

The correct answer is 1987

★ Key Points

- **The Board for Industrial and Financial Reconstruction (BIFR)** was an agency of the Government of India.
 - Its objective is to determine sickness of industrial companies and to assist in reviving those that may be viable.
 - The BIFR was established under **The Sick Industrial Companies (Special Provisions) Act, 1985 (SICA)** .
 - The board was set up in January 1987 and became **functional as of 15 May 1987.**
-

78. Answer: b

Explanation:

The correct answer is Isohyet

★ Key Points

Word	Meaning
Isobath	Isobath is an imaginary line or a line on a map or chart that connects all points having the same depth below a water surface.
Isohyet	Isohyet is a line drawn on a weather map connecting points that receive equal amounts of precipitation or rainfall during a given period of time.
Isozyme	Isoenzymes (also called isozymes) are alternative forms of the same enzyme activity that exist in different proportions in different tissues.
Isoneph	Isoneph is a line on a map connecting points that have the same average percentage of cloudiness.

79. Answer: d

Explanation:

The correct answer is Hussain Sagar – Karnataka

★ Key Points

- Loktak Lake is the largest freshwater lake in Northeast India and is famous for the phumdis floating over it. The lake is located near Moirang in **Manipur** state, India
- The Sambhar Salt Lake, India's largest inland Salt Lake, is located 96 km southwest of the city of Jaipur and 64 km northeast of Ajmer along National Highway 8 in **Rajasthan**.
- Lonar Lake is a notified National Geo-heritage Monument saline soda lake located at Lonar in Buldhana district, **Maharashtra**, India.
- Hussain Sagar is a heart-shaped lake in **Hyderabad** built by Ibrahim Quli Qutb Shah and named after Hussain Shah Wali. It is spread across an area of 5.7 square kilometers and is fed by River Musi.

80. Answer: d

Explanation:

The correct answer is Shah Jahan

★ Key Points

- Red Fort in Delhi was built by the Mughal Emperor Shah Jahan, his era was considered as the 'Golden Age' for architectures. Some of the popular structures built during his rule are as follows:
 - Red Fort or Lal Quila, Delhi
 - Taj Mahal, Agra
 - Jama Masjid, Delhi
 - Jama Masjid, Agra

81. Answer: a

Explanation:

The correct answer is 1930.

★ Key Points

- In **1930s**, the trade union movement in India faced unfavourable situations aggravated by economic depression.
- Although, **unity was restored in the movement** when all the trade unions, **except Ahmedabad textile Labor**, be unified in 1930.

★ Additional Information

- India's **trade union movement** was started by **Narayan Meghaji Lokhande**.
- He made a significant contribution to preserving religious harmony during the 1893 Hindu-Muslim riots.
- He was, in a real sense, the founder of the **Trade Union Movement**.

- He spent his entire life working to improve a lot of the working class .
-

82. Answer: c

Explanation:

The correct answer is Jainism.

★ Key Points

- In **Jainism** , a Tirthankara is a **saviour and the spiritual teacher of the dharma (righteous path)**.
- According to Jains, a **Tirthankara** is a rare individual who has conquered the **samsāra, the cycle of death and rebirth on his own** and has made a path for others to follow.

★ Additional Information

- **Tirthankaras** are considered to be the **embodiment of compassion and non-violence**.
 - Jains believe that there have been **24 Tirthankaras** in the current cosmic age.
 - Each Tirthankara has a **unique emblem and symbol** that represents them, **such as a lion, elephant, and so on**.
 - Tirthankaras are believed to have **attained enlightenment through their own efforts and not through any external help**.
 - Tirthankaras are **not considered gods, but rather role models for Jains** to follow to achieve spiritual liberation.
 - Jains believe that by following the teachings of Tirthankaras, **one can attain the ultimate goal of Jainism, which is liberation from the cycle of birth and death**.
-

83. Answer: b

Explanation:

The correct answer is Qatar.

★ Key Points

- **Qatar** , a small Middle Eastern country ranks as the **richest country in the world** in terms of **per capita GDP** , giving it a total GDP of approximately **\$124,930 per person** and making it the **richest country in the world as of 2017** , according to the IMF.
- Whereas the **per capita GDP of UAE is 37, 226, Saudi Arabia is 21,120** and Kuwait is \$ 26,687.

★ Additional Information

- **International Monetary Fund**
 - International Monetary Fund **headquarters** is located in **Washington D. C in the United States** .
 - International Monetary Fund is an **Organization of 190 countries**.
 - It is working to **secure financial stability, facilitate international trade, promote high employment and economic growth and reduce poverty around the world**.
 - The IMF was founded in **July 1944** at the **United Nations Bretton Woods Conference** in New Hampshire, United States.

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84. Answer: b

Explanation:

The correct answer is Mahabaleshwar Sail.

★ Key Points

- **Mahabaleshwar Sail** is an Indian author who has been honoured with the **Saraswati Samman, 2016** for his novel '**Hawthorn**'.
- The novel "Hawthan", published in 2009, captures the cultural lives of the traditional potter community in Goa.

- He was awarded the Sahitya Akademi Award in the Konkani language for his short story collection 'Taranga' in 1993.

★ Additional Information

- **Saraswati Samman**

- The Saraswati Samman is an **annual award** for **outstanding prose or poetry literary works** in any of the **22 languages of India** listed in **Schedule VIII** of the Constitution of India.
- It is named after an Indian **goddess of knowledge**.
- The Saraswati Samman was instituted in **1991** by the **K. K. Birla Foundation**. It consists of **₹15,00,000, a citation, and a plaque**.
- Candidates are selected from literary works published in the **previous ten years** by a panel that included **scholars and former award winners**.
- The inaugural award was given to **Harivanshrai 'Bachchan'** for his four-volume autobiography, **Kya Bhooloon Kya Yaad Karoon, Needa Ka Nirman Phir, Basere Se Door, and Dashdwar se Sopan Tak**.
- So far, **31 awardees** have been honoured with Saraswati Samman for their work in different languages. Recently, Hindi writer **"Prof. Ramdarsh Mishra"** was honoured with Saraswati Samman for **2021** his collection of poems **'In Toh Here Hoon'** on **April 7, 2022**.

85. Answer: a

Explanation:

The correct answer is 977.

★ Key Points

- The international calling code of Nepal is **977**.
- To make international calls there are some prefix codes that need to be mentioned before the phone numbers to place calls internationally. These codes are called International calling codes
- The international calling code of **India is 91**.

★ Additional Information

Other important codes and their countries:

Code	Country
977	Nepal
947	Michigan
974	Qatar
964	Iraq

86. Answer: a

Explanation:

The correct answer is Only I and II.

★ Key Points

- **Metallic oxides** are basic in nature because they react with dilute acids to form salt and water. Hence, Statement I is correct.
- **Non-metallic oxides** are acidic in nature since they react with water to form metal hydroxides which are alkaline in nature. Hence, Statement II is also correct.
- **Non-metals** are generally electronegative in nature because these metal hydroxides release OH^- ions in solution. Hence, Statement III is incorrect.

87. Answer: d

Explanation:

The correct answer is Alloys.

★ Key Points

- An **alloy** is considered a **homogeneous mixture** because, by definition, a homogeneous mixture has the **same uniform appearance and composition throughout**.
- Since an **alloy is a mixture of two or more metals or a mixture of a metal with some other element, and these mixtures are uniform throughout**, they fit the definition of being homogeneous.

★ Additional Information

Other mixtures and their nature:

Mixture	Nature
Water and oil	Heterogeneous mixture
Starch and sugar crystals	Heterogeneous mixture
Graphite and charcoal	Pure substance
Alloys	Homogenous mixture

88. Answer: b

Explanation:

The correct answer is Prime Minister of India.

★ Key Points

- The **Prime Minister of India** is the leader of the **executive of the Government of India**.
- The prime minister is also the **chief adviser to the President of India and head of the Council of Ministers**.
- She/he can be a **member of any of the two houses** of the Parliament of India, the Lok Sabha (House of the People) and the Rajya Sabha (Council of the States).
- The president can exercise his powers in his role as the head of the legislature only upon the advice of the Prime Minister and his Union Council of Ministers.

89. Answer: c

Explanation:

The correct answer is Part XII.

★ Key Points

- **Part XII** is a compilation of laws pertaining to the constitution of India as a country and the union of states that it is made of.
- This part of the constitution **consists of Articles on financial relations between the Union and States**.

★ Additional Information

The Parts of the Indian constitution are:

Parts	Articles	Details
Part X	244 to 244A	The Scheduled and Tribal Areas.
Part VIII	239 to 242	The Union Territories.
Part XII	264 to 300A	Finance, Property, Contracts, and Suits.
Part XX	368	Amendment of the Constitution.

90. Answer: c

Explanation:

The correct answer is Skeletal muscle.

★ Key Points

- **Multinucleation** means the presence of **more than one nucleus**.
- Both skeletal muscles and cardiac muscles are striated, but **skeletal muscle fibres are multinucleated**.
- Whereas, the cardiac muscle fibre is uninucleated.

★ Additional Information

- Muscles play an active role in **all the movements of the body**.
- Muscles are of **three types** based on their **position or location** in the body:
 - Skeletal muscles or Striated muscle
 - Visceral muscles or Smooth muscles
 - Cardiac muscles

Skeletal muscle:

- Skeletal muscle fibres are cylindrical, multinucleated, striated, and under voluntary control.

Smooth muscle:

- Smooth muscle cells are spindle-shaped, have a single, centrally located nucleus, and lack striations. They are also called involuntary muscles.

Cardiac muscle:

- Cardiac muscle fibre contains a single nucleus and is striated, or striped.

Unstriated muscled:

- Unstriated muscled are found inside organs like the blood vessels, stomach, and intestines.

91. Answer: d

Explanation:

The correct answer is All option are correct.

★ Key Points

- **Bryophytes** are an informal group consisting of three divisions of non-vascular land plants, liverworts, hornworts, and mosses. Bryophytes produce enclosed reproductive structures (gametangia and sporangia), but they do not produce flowers or seeds. They reproduce via spores.



- The **Thallophytes** are a polyphyletic group of non-mobile organisms traditionally described as "lower plants". Thallophytes have a hidden reproductive system together with ferns.



- A **pteridophyte** is a vascular plant that disperses spores (and lacks seeds) because they produce neither flowers nor seed. The sexuality of pteridophyte gametophytes can be classified into Dioecious and Monoecious.



92. Answer: b

Explanation:

The correct answer is Maneka Gandhi.

★ Key Points

- Ex-Union Minister of Women & Child Development Maneka Sanjay Gandhi 2 January 2018 inaugurated the online portal ' NARI' for women's empowerment.
- NARI stands for 'National Repository of Information for Women'.
- The portal contains information about schemes being run by both Central as well as States Governments.
- The portal carries details on **350** different central schemes for women and will be updated from time to time.

Menka Gandhi

★ Important Points

- She is an Indian politician, animal rights activist, and environmentalist.
- She is a member of the Lok Sabha, the lower house of the Indian parliament, and a member of the Bharatiya Janata Party (BJP).
- Gandhi authored a number of books in the areas of etymology, law, and animal welfare.

93. Answer: a

Explanation:

The correct answer is Hwasong-15.

★ Key Points

- The Hwasong-15 is an intercontinental ballistic missile developed by North Korea.
- It had its maiden flight on 28 November 2017.
- It is the **first ballistic missile developed by North Korea** that is theoretically capable of reaching all of the United States mainland (including Washington D.C.).

★ Important Points

North Korea:

- Capital – **Pyongyang**.
- Currency – North Korean won.

94. Answer: c

Explanation:

The correct answer is March 2019.

★ Key Points

- SBI pitched for deferring the implementation of **Basel III** banking norms in view of the higher capital requirement to deal with bad loans which have reached unacceptable levels beyond March 2019.
- Saying it will help banks meet their capital needs and increase credit flow to productive.

★ Important Points

State Bank of India (SBI)

- The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806 .
- Three years later the bank received its charter and was re-designed as the Bank of Bengal (2 January 1809).

- State Bank of India was incorporated on 01 July 1955 .
- The Government of India nationalized the Imperial Bank of India in the year 1955 with the Reserve Bank of India taking a 60% stake and the name was changed to the State Bank of India .
- SBI is the largest state-owned banking and financial services company in India .

95. Answer: b

Explanation:

The correct answer is 18.

★ Key Points

- The Supreme Court, in a landmark judgment, on 11 October 2017 criminalized sex with a minor wife aged between 15 to 18 years, saying the exception in the rape law was arbitrary and violative of the constitution.
- **Section 375 of the IPC** , which defines the offense of rape, has an exception clause that says intercourse or sexual act by a man with his wife, not below 15 years, is not rape. However, the age of consent is 18 years.

Supreme Court

★ Important Points

- The Supreme Court of India is the highest judicial court and the final court of appeal under the Constitution of India.
- India is a federal state and has a single and unified judicial system with a three-tier structure, i.e. Supreme Court, High Courts, and Subordinate Courts.
- The Indian constitution provides for a provision of the Supreme Court under Part V (The Union).
- Articles 124 to 147 - Deal with the organization, independence, jurisdiction, powers, procedures, and so on of the Supreme Court.

96. Answer: b

Explanation:

The correct answer is 150.

★ Key Points

- The pressure is defined as **force per unit area**.
- The standard unit for pressure is the **Pascal** , which is a **Newton per square meter** .
- Pressure and force are related because the pressure is a force divided by area and hence can be calculated by Steven Holzner formula, $P = F \div A$,

$$\Rightarrow \text{Pressure} = 750 \text{ N} \div 5 \text{ m}^2$$

$$\Rightarrow 150 \text{ Pa}$$

97. Answer: c

Explanation:

The correct answer is Power.

★ Key Points

- In physics, power is the rate of doing work .
 - It is the amount of energy consumed per unit of time .
 - The unit of power is the joule per second (J/s), known as the watt (in honor of James Watt, the eighteenth-century developer of the steam engine).

★ Important Points

- Power is the rate at which work is done or the rate at which energy is transferred from one place to another or transformed from one type to

another.

- A joule per second is called a watt [W] in honor of the Scottish mechanical engineer James Watt.
- Energy, in physics, is the capacity for doing work. It may exist in potential, kinetic, thermal, electrical, chemical, nuclear, or other various forms.
 - There are, moreover, heat, and work i.e., energy in the process of transfer from one body to another.
- Momentum is a physics term; it refers to the quantity of motion that an object has. A sports team that is on the move has momentum.
 - Momentum can be defined as "mass in motion".
 - All objects have mass so if an object is moving, then it has the momentum it has its mass in motion.

98. Answer: c

Explanation:

The correct answer is Boiling.

★ Key Points

- Evaporation is the process by which water changes from a liquid to a gas or vapor.
- Rehydration is the process of restoring lost water (dehydration) to the body's tissues and fluids.
- Boiling is the rapid vaporization of a liquid, which occurs when a liquid is heated to its boiling point. **Boiling water kills or inactivates viruses, bacteria, protozoa, and other pathogens by using heat to damage structural components and disrupt essential life processes of germs.**
- Desiccation is the process of extreme drying.

★ Additional Information

- **Evaporation** can generally be defined as a process by which a liquid is transformed into vapour.

- The **rehydration** capacity is an interesting functional property for industrial use of the product as well as for the consumer.
- **Desiccation** is the state of extreme dryness or the process of extreme drying

99. Answer: c

Explanation:

The correct answer is Both A and B

★ Key Points

- Sunrisers Hyderabad, at the IPL retention 2018 had retained their captain and Australian opener, David Warner. *(Hence statement A is correct)*
- Rohit Kumar played as the captain of Bangalore bulls and also created the record for the most points scored by a team in 2017, the fifth season of the Pro Kabaddi League. *(Hence statement B is correct)*
- The Azerbaijan Grand Prix held on 25 June 2017 at the Baku City Circuit in Baku, Azerbaijan was won by Daniel Ricciardo of Red Bull. *(Hence statement C is incorrect)*

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100. Answer: b

Explanation:

The correct answer is Menu bar.

★ Key Points

- The menu bar is used to execute active links by selecting menu bar items from a top-level menu.
- The Header area element represents introductory content, typically a group of introductory or navigational aids.

- The body of HTML contains all the contents of an HTML document, such as text, hyperlinks, images, tables, lists, etc.
- The footer area is a section of the document that appears in the bottom margin. Footers generally contain information such as the page number, date, and document name.



Important PointsHTML:

- HTML is short for "HyperText Markup Language".
- It simply means it is a language for describing web pages using ordinary text.
- HTML is not a complex programming language.

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