Prepp.in

Prepp

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
- UPTET
- IBPS RRB
- IBPS CLERK
- IES
- UPSC CAPF
- SSC Stenogr..
- RRB NTPC
- SSC GD
- RBI GRADE B
- RBI Assistant
- DSSSB

RRB Group D 2022 Prev. Yr. Paper (23 Aug 2022) (Shift 3)

Total Time: 1 Hour : 30 Minute **Total Marks:** 100

Instructions

1. Test will auto submit when the Time is up.
2. The Test comprises of multiple choice questions (MCQ) with one or more correct answers.
3. The clock in the top right corner will display the remaining time available for you to complete the examination.

Navigating & Answering a Question

1. The answer will be saved automatically upon clicking on an option amongst the given choices of answer.
2. To deselect your chosen answer, click on the clear response button.
3. The marking scheme will be displayed for each question on the top right corner of the test window.

Your Personal Exams Guide

Download Prepp APP GET IT ON Google Play

Test

1. The economic reforms were initiated by Narasimha Rao government in: **(+1, -0.33)**

   a. the 8th five-year plan

   b. the 9th five-year plan

   c. the 7th five-year plan

   d. the 5th five-year plan

---

2. During neutralisation reaction H+ ion comes from _____ and OH ion comes from _____ respectively, to form a water molecule. **(+1, -0.33)**

   a. acid; salts

   b. base; acid

   c. acid; base

   d. salts; base

---

3. The value of the product sin 90°. sin 89°.sin88°.sin 87° .....sin 0° is: **(+1, -0.33)**

   a. 0

   b. π/2

   c. 1

   d. π

---

4. In this question, a group of numbers/symbols is coded using letters as per the table given below and the conditions which follow. The correct combination of codes following the condition is your answer. **(+1, -0.33)**

Prepp Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

Number/Symbol	=	6	8	<	?	/	2	5	!	@	7	3	^
Code	G	L	F	M	E	N	D	P	C	R	T	B	V

Conditions:

1. If the first element is a symbol and the last is a number, the first and last elements are coded as ¥ and ¥, respectively.
2. If the first element is an odd number and the last is an even number, the codes for these two are to be interchanged.
3. If both second and third elements are perfect squares, the third element is to be coded as the code for the second element.

How will '5 < = 2 6' be coded?

a. FEGPTC

b. BELDTC

c. CEGPTF

d. FNGPTC

---

5. Find the length of the side of an equilateral triangle, if its area is $4\sqrt{3}$ sq. unit. **(+1, -0.33)**

a. 2 unit

b. $\sqrt{3}$ unit

c. 16 unit

d. 4 unit

---

6. $16x^2 - 8x + 1 = 0$, then what is the value of $(16x^2 + 1/4x^2)$? **(+1, -0.33)**

a. 7

b. 5

c. 4

Prepp Download Prepp APP GET IT ON Google Play

d. 6

---

7. The sign of the magnification produced by a concave mirror is: **(+1, -0.33)**

a. positive when the image is virtual and negative when the image is real

b. always positive

c. positive when the image is real and negative when the image is virtual

d. always negative

---

8. There are four different elements along with their atomic numbers: A (9), B (11), C (19) and D (37). Find the odd element from these with respect to their positions in the periodic table? **(+1, -0.33)**

a. D

b. A

c. C

d. B

Your Personal Exams Guide

9. Which of the following regions is known to receive the maximum rainfall from the South-west Monsoon winds in India? **(+1, -0.33)**

a. Western Ghats

b. Gangetic Plains

c. Central Plateau Region

d. Eastern Ghats

---

10. If 18:30 :: 30: x, then find the value of x. **(+1, -0.33)**

a. 50

Prepp Download Prepp APP GET IT ON Google Play

b. 40

c. 35

d. 45

---

11. A tank is filled in 4 hours by three pipes A, B, and C. Pipe C is twice as fast as pipe B, and pipe B is twice as fast as pipe A. How much time will pipe A take to fill the tank? **(+1, -0.33)**

a. 25 hours

b. 28 hours

c. 20 hours

d. 26 hours

---

12. "Dare2eraD TB" by the Department of Biotechnology, Ministry of Science & Technology, was launched on the occasion of World TB Day by who among the following? **(+1, -0.33)**

a. Dr. Bharati Pravin Pawar

b. Dr. VK Paul

c. Dr. Jitendra Singh

d. Dr. Mansukh Mandaviya

---

13. What is the least number added to 2488 so that it is completely divisible by 3, 4, 5, and 6? **(+1, -0.33)**

a. 32

b. 34

c. 42

d. 28

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

14. Which of the following statement is CORRECT about the Law of Demand with regard to subject of Economics? **(+1, -0.33)**

a) The law of demand is a fundamental principle of economics that states that at a higher price consumer will demand a lower quantity of a good.

b) Demand is derived from the law of diminishing marginal utility it is based on the fact that consumers use economic goods to satisfy their most urgent needs first.

c) The shape and magnitude of demand shifts in response to changes in price.

a. Only c

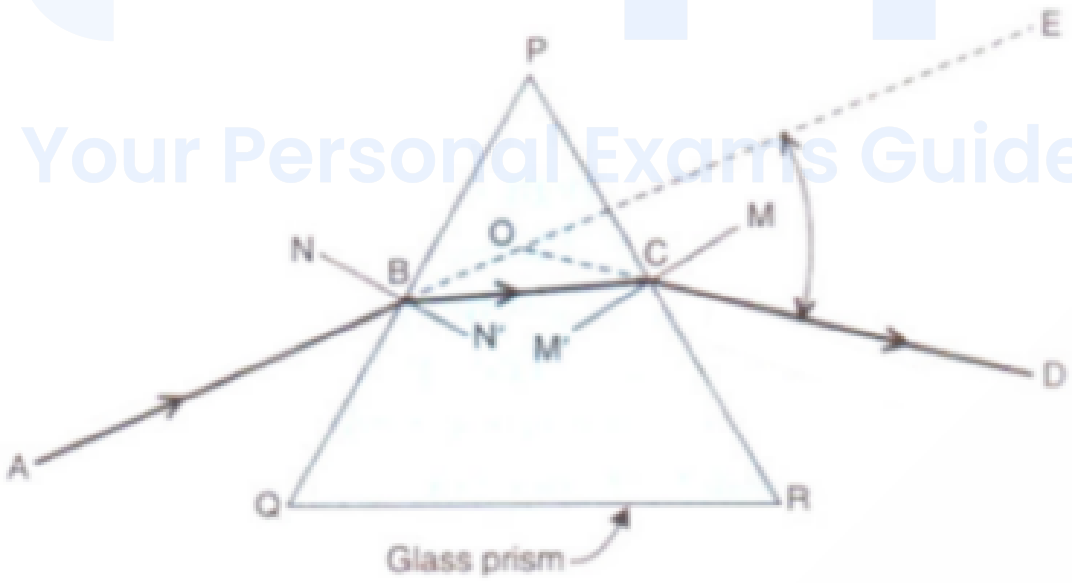
b. Only b

c. Both a and b

d. Only a

---

15. The figure below shows refraction of a ray of light AB through a triangular glass prism. Here, ∠ EOD represents: **(+1, -0.33)**



a. angle of incidence

b. angle of emergence

Your Personal Exams Guide
Download Prepp APP
GET IT ON Google Play

c. angle of refraction

d. angle of deviation

---

16. The following question is based on the given seven, 3-digit numbers. **(+1, -0.33)**

(Left) 347, 486, 627, 113, 721, 418, 779 (Right)

(For example, 456: 6 = digit in unit's place, 5 = digit in ten's place, 4 = digit in hundred's place)

NOTE - All operations to be done from left to right.

If 2 is added to the digit in hundred's place of each number given above, in how many numbers will be the modified digit in hundred's place be exactly divisible by the digit appearing in the ten's place?

a. 4

b. 2

c. 1

d. 3

---

17. Which of the following is an example of a thermal decomposition reaction? **(+1, -0.33)**

a. $2H_2O \rightarrow 2H_2 + O_2$

b. $2NaCl\ (molten) \rightarrow 2Na + Cl_2$

c. $ZnCO_3 \rightarrow ZnO + CO_2$

d. $2AgCl \rightarrow 2Ag + Cl_2$

---

18. What is the greatest number, by which when 8954, 9806 and 11297 are divided, the remainder in each case is the same? **(+1, -0.33)**

a. 125

b. 213

Prepp Download Prepp APP GET IT ON Google Play

c. 230

d. 222

---

19. Six persons, L, M, N, O, P and Q, have cooking classes in different months of the same year, viz. February, March, June, August, September and December. **(+1, -0.33)**

P has the class immediately before Q. Only M has the class before O. L has the class immediately after N and before Q. Which of the following is correct?

a. Q has the class in February.

b. M has the class in March.

c. P has the class in September.

d. L has the class in June.

---

20. Four friends W, X, Y and Z are sitting at the corners of a square table facing towards the centre. W and Z are not at the opposite corners, but W is to the immediate right of Y. Who among the following is sitting opposite to X? **(+1, -0.33)**

a. W

b. X

c. Z

d. Y

---

21. Simplify: $x^2 + 5x - 12 - 3(x^2 - 2x + 9)$. **(+1, -0.33)**

a. $2x^2 - 11x - 39$

b. $-2x^2 + 11x + 39$

c. $-2x^2 + 11x - 39$

d. $2x^2 + 11x - 39$

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

22. Which Article of the Indian Constitution specifically mentions, "The official language of the Union shall be Hindi in Devanagari script?" **(+1, -0.33)**

a. Article 51A

b. Article 80

c. Article 343(1)

d. Article 395

---

23. Which of the following numbers will replace the question mark (?) in the given series? **(+1, -0.33)**

8, 18, 38, 78, 158, ?

a. 306

b. 324

c. 224

d. 318

---

24. What was the main aim of the agreement made by UNEP in 1987? **(+1, -0.33)**

a. To stop water pollution

b. To use more CFCs in fire extinguishers

c. To stop emission of greenhouse gases

d. To freeze the production of CFCs at 1986 level

---

25. Consider the below statements and identify the correct answer. **(+1, -0.33)**

Statement-I: Sodium hydroxide is prepared by chlor-alkali process.

Statement-II: Sodium hydroxide is used for making artificial textile fibres (such as rayon).

Prepp Download Prepp APP GET IT ON Google Play

a. Statement-I is true, and Statement-II is false.

b. Both the statements are false.

c. Statement-II is true, and Statement-I is false.

d. Both the statements are true.

---

26. Name the app released by the Indian Army for an in-house messaging application for the military sector. **(+1, -0.33)**

a. MY IAF

b. DGNCC

c. SAI

d. ASIGMA

---

27. Consider the below statements and identify the correct answer. **(+1, -0.33)**

Statement I: Series of compounds in which the same functional group substitutes for hydrogen in a carbon chain is called a homologous series Statement II: As the molecular mass increases in any homologous series, a gradation in physical properties is seen.

Your Personal Exams Guide

a. Both the statements are incorrect.

b. Both the statements are correct.

c. Statement II is correct, and Statement I is incorrect.

d. Statement I is correct, and Statement II is incorrect.

---

28. If $x + 1/x = 4$, then $x^2 + 1/x^2 = ?$ **(+1, -0.33)**

a. 14

b. 16

Prepp Download Prepp APP GET IT ON Google Play

c. 12

d. 18

---

29. If $2^{3k-5} = 4096$, then the value of k is: **(+1, -0.33)**

a. 7

b. 17/3

c. 11

d. 16/3

---

30. If '+' means '−', '−' means '+', '+' means 'x' and 'x' means '+', what will come in place of the question mark (?) in the following equation? **(+1, -0.33)**

64 + 32 − 8 × 11 + 3 = ?

a. 39

b. 93

c. 90

d. 35

Prepp Your Personal Exams Guide

---

31. The following table shows the number of sofa sets sold by four salespersons in three different months. Study the table and answer the question. **(+1, -0.33)**

Salespersons	May	June	July
Vishal	125	110	95
Arunima	140	92	75
Kartik	188	114	80
Mitali	125	120	210

Prepp Download Prepp APP GET IT ON Google Play

What is the percentage contribution of Vishal's May sale in the total sale of May?

a. 23.4%

b. 25.6%

c. 18.5%

d. 21.6%

---

32. Which of the following devices is based on the principles of electromagnetic induction? **(+1, -0.33)**

a. Electric motor

b. Electric fan

c. Electric bulb

d. Electric generator

---

33. The term (aq) written after the symbol/formula of a substance in a chemical equation indicates that it is present in: **(+1, -0.33)**

a. gaseous state

b. solid state

c. liquid state

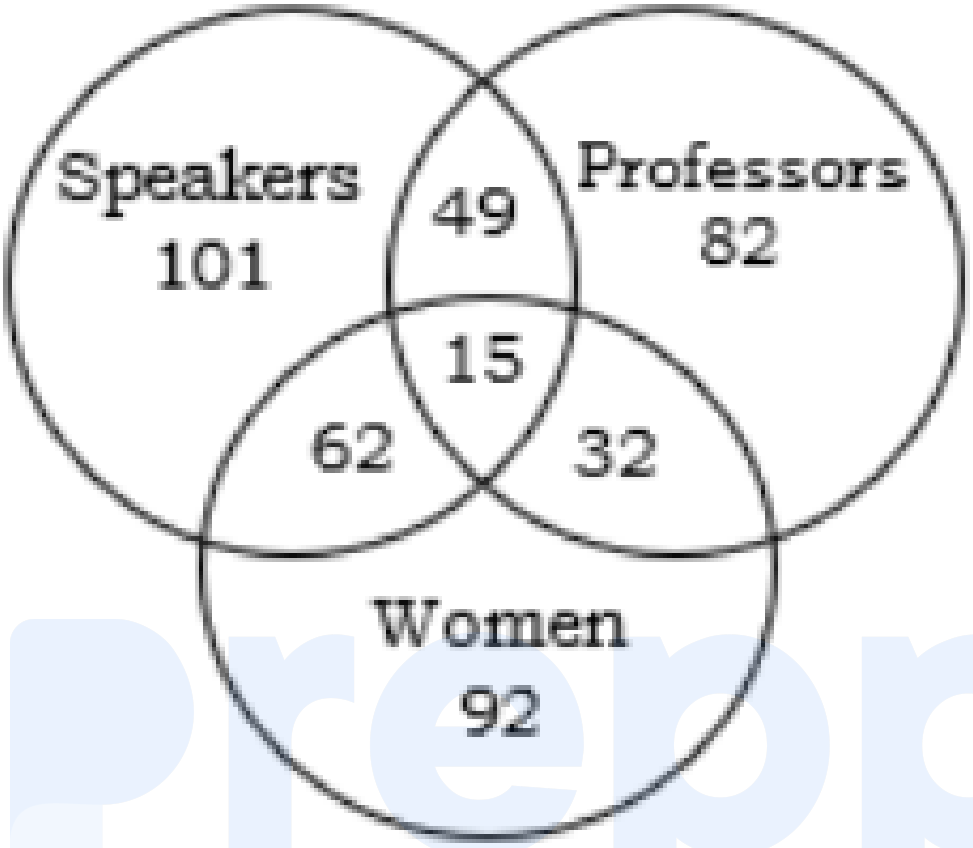
d. a solution in water

---

34. Study the diagram and answer the questions that follow. The numbers in different sections indicate the number of persons. How many women are speakers and NOT professors and how many professors are speakers and NOT women? **(+1, -0.33)**

Prepp Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play



a. 62 and 32, respectively

b. 77 and 49, respectively

c. 47 and 49, respectively

d. 62 and 49, respectively

---

35. Madhu and Shiney together can complete a piece of work in 20 days, Shiney and Rosy together can complete the same work in 12 days, and Rosy and Madhu together can complete the work in 15 days. In how many days will three of them complete it together? **(+1, -0.33)**

a. 12 days

b. 5 days

c. 15 days

Prepp Download Prepp APP GET IT ON Google Play

d. 10 days

---

36. Which of the following statements is/are correct? **(+1, -0.33)**

(A) Resistance is independent of temperature.

(B) The more the voltage across a conductor, the more is the resistance.

(C) The S.I unit of resistance is ohm.

a. Both A and B

b. Only A

c. Only C

d. Both A and C

---

37. If $a + b + c = 6$ and $ab + bc + ca = 2$, then find the value of $a^3 + b^3 + c^3 - 3abc$. **(+1, -0.33)**

a. 240

b. 192

c. 200

d. 252

Prepp Your Personal Exams Guide

---

38. The elements which have 2 electrons in their outermost cell are generally: **(+1, -0.33)**

a. non-metals

b. metalloids

c. noble gases

d. metals

---

39. Find the roots of the equation $x^2 + 11x - 26 = 0$. **(+1, -0.33)**

Prepp Download Prepp APP GET IT ON Google Play

a. -2 and 11

b. -13 and 2

c. 11 and 2

d. 13 and -2

---

40. Rajiv's salary was first decreased by 40% and subsequently increased by 50%. How much percent did he lose from his initial salary? **(+1, -0.33)**

a. 12%

b. 14%

c. 10%

d. 15%

---

41. Study the given number, symbol series and answer the question that follows. **(+1, -0.33)**

9 1 @ 4 * 7 5 3 9 1 < 3 9 1 # 2 * 6 ! 4 2 & 9 < 3 6

How many such numbers are there which are immediately preceded by a symbol and immediately followed by an even number?

a. 6

b. 4

c. 5

d. 3

---

42. Who has won his eighth title at the 19th Asian 100 UP Billiards Championship, 2022? **(+1, -0.33)**

a. Geet Sethi

b. Aditya Mehta

c. Dhruv Sitwala

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

d. Pankaj Advani

---

43. Find the arithmetic mean of 5, 15, 23, 26, and 29. **(+1, -0.33)**

a. 17.6

b. 19.6

c. 18.6

d. 20.6

---

44. What changes take place in the guard cells that cause the opening of stomata? **(+1, -0.33)**

a. Water enters the guard cells and they shrink

b. Water comes out of the guard cells and they shrink

c. Water enters the guard cells and they swell

d. Water comes out of the guard cells and they swell

---

45. Microfinance in India is a form of financial service which provides small loans and other financial services to poor and low-income households for **(+1, -0.33)**

a. medium and long term

b. long term

c. short term

d. medium term

---

46. Which of the following is a quadratic equation? **(+1, -0.33)**

A. $x(x - 4) = 2x + x^2 - 7$

B. $5(2y + 3) - 6y = 5y(y^2 - 8y)$

Prepp Download Prepp APP GET IT ON Google Play

C. $k(k + 1) - k(k - 2)\ 2k = 0$

D. $p(p^2 + 7) = p^2 + p^3 - 18$

a. Only D

b. Only C

c. Only A

d. Only B

---

47. In a class of 17 students, each scored differently. A's rank from the top is 9th, while B's rank from the bottom is 11th. C's rank from the top is better than A but worse than B. What is C's rank from the top? **(+1, -0.33)**

a. 9th

b. 8th

c. 7th

d. 6th

---

48. Which of the following harvest festivals is mainly celebrated in South India? **(+1, -0.33)**

a. Onam

b. Uttarayan

c. Bihu

d. Maghi

---

49. The odometer of a car reads 12,000 km at the start of a trip and 12,800 km at its end. If the trip took 4 hours, then the average speed of car in m/sec is: **(+1, -0.33)**

a. 430/8 m/sec

b. 500/9 m/sec

Prepp Download Prepp APP GET IT ON Google Play

c. 188/9 m/sec

d. 270/8 m/sec

---

50. In a certain code language, 'FEELING' is written as 'VVUOTMR' and 'HEAVILY' is written as 'ZVSEBOR'. How will 'FORTUNE' be written in that language? **(+1, -0.33)**

a. ILGUVMF

b. ULIGFMV

c. ILUGFMV

d. ILUGVMF

---

51. Read the given statement and conclusions carefully. Assuming that the information given in the statements is true, decide which of the given conclusions logically follow(s) from the statement. **(+1, -0.33)**

Statement: Onion prices have skyrocketed due to shortage of onions and largescale hoarding by a few traders.

Conclusions: I. The government must crackdown on the hoarders and impose stringent penalties on hoarders.

II. People must stop eating onions and switch to potatoes instead.

a. Only conclusion II follows

b. Neither conclusion I nor II follows

c. Both conclusions I and II follow

d. Only conclusion I follows

---

52. Which of the following numbers will replace the question mark (?) in the given series? 12, 14, 31, 97, 393, ? **(+1, -0.33)**

a. 1970

Prepp Download Prepp APP GET IT ON Google Play

b. 1972

c. 1971

d. 1965

---

53. Five houses, P, Q, R, S and T, are located in the same colony. T is 40 m to the east of Q. P is 30 m to the south of Q. R is 40 m to the west of Q. Q is 35 m to the south of S. In which direction is R with reference to T? **(+1, -0.33)**

a. North

b. West

c. East

d. South

---

54. The component of white light that has maximum refractive index is: **(+1, -0.33)**

a. red

b. yellow

c. violet

d. green

---

55. Six boxes, A, B, C, D, E and F, are kept one over the other but not necessarily in the same order. Only one box is kept between B and D. Only two boxes are kept between B and E. E is kept just above A. F is kept just above B. Box A is not kept in the bottom most position. Which box is kept at the top? **(+1, -0.33)**

a. E

b. D

c. B

d. C

Prepp Download Prepp APP GET IT ON Google Play

56. Seema squeezed a lemon and collected the juice in a glass. She realised that its sourness reduced when she added some water to it. What is the effect of addition of water on the concentration of hydroxide ions? **(+1, -0.33)**

a. It remains constant

b. It increases

c. It reduces

d. It first increases and then decreases

57. In the given letter-cluster pairs, the first letter-cluster is related to the second letter-cluster following a certain logic. Study the given pairs carefully, and from the given options, select the pair that follows the same logic. **(+1, -0.33)**

a. FTZN: UGVW

b. DHEL: WSVO

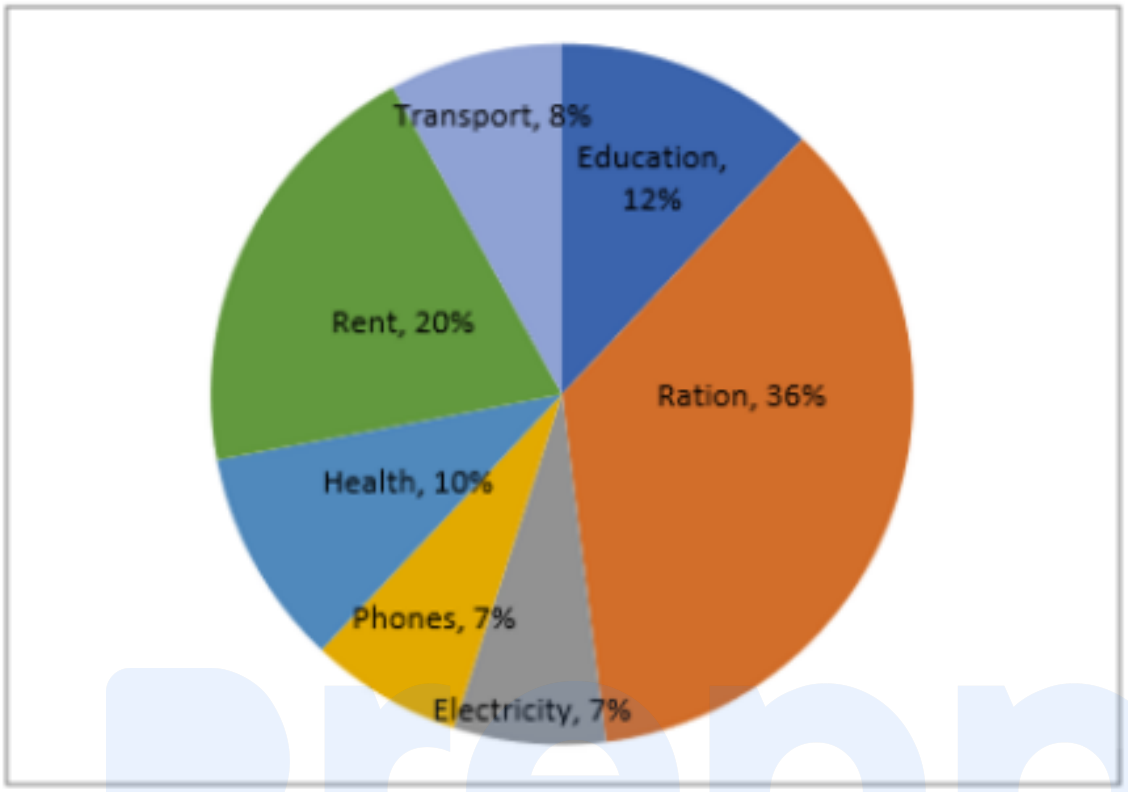
c. VQCX: EPXZ

d. TNDK: GMRP

58. The following chart shows the expenditure of a house on various heads. **(+1, -0.33)**

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play



The total expenditure of the house is ₹85,200. Study the chart and answer the question.
How much more amount is spent on ration than on rent?

a. ₹13,512

b. ₹13,852

c. ₹13,632

d. ₹14,332

---

59. Which of the following rivers is NOT a tributary of River Brahmaputra? **(+1, -0.33)**

a. Subansiri

b. Lohit

c. Gandak

d. Manas

Prepp Download Prepp APP GET IT ON Google Play

60. The position of how many letters will remain unchanged if each of the letters in the word QUALITY is arranged in alphabetical order? (+1, -0.33)

a. 3

b. 4

c. 1

d. 2

---

61. A shopkeeper sells 35 kg sugar for every 40 kg using false weights. How much percentage profit does he make if sells sugar at cost price (rounded off to two places of decimal)? (+1, -0.33)

a. 15.33%

b. 14.28%

c. 12.50%

d. 12.50%

---

62. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. 4:8::8:32::12:? (+1, -0.33)

a. 72

b. 36

c. 24

d. 144

---

63. determines the sex of fertilised eggs in a few reptiles. (+1, -0.33)

a. Moisture

Prepp Download Prepp APP GET IT ON Google Play

b. Autosome

c. Temperature

d. Allosome

---

64. Among six girls, Natasha, Yuvika, Aditi, Tanya, Shahnaz and Daljeet, each one has a different height. Tanya is the shortest among all. Aditi is taller than only Natasha and one another girl. Shahnaz is shorter than Daljeet, who is shorter than Yuvika. Who is the third tallest among all six girls? **(+1, -0.33)**

a. Aditi

b. Yuvika

c. Shahnaz

d. Daljeet

---

65. A cuboidal room is of length 15 m, breadth 17 m, and height 21 m. Find the cost of painting its walls and ceiling at the rate of ₹40/m². **(+1, -0.33)**

a. ₹63,960

b. ₹58,912

c. ₹44,250

d. ₹85,126

---

66. Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number. **(+1, -0.33)**

15:180::17:204::21:?

a. 252

b. 240

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

c. 248

d. 232

---

67. An electric heater rated 1000 W is used for 5 hours daily. For cost per unit of ₹6.00, calculate the total cost for running the device for the month of September (in ₹). **(+1, -0.33)**

a. 900

b. 500

c. 180

d. 150

---

68. Given below are three statements and three conclusions. Take the statements to be true even if they are at variance with commonly known facts, and decide whether the conclusion/s follow/s the given statements. **(+1, -0.33)**

Statements: I. Some lions are cats. II. All cats are animals. III. Some animals are not lions.

Conclusions: I. Some animals are lions. II. All lions are animals. III. No animal is a lion.

a. Conclusions II and III follow

b. Only conclusion I follows

c. Only conclusion III follows

d. None of the conclusions follow

Simplify $4\frac{7}{9} \times 7\frac{8}{9} \times 81 + 2\frac{3}{4}$.

69. a. 3055.25 **(+1, -0.33)**

Prepp Download Prepp APP GET IT ON Google Play

b. 3053.25

c. 3053.75

d. 3055.75

---

70. In a parallelogram two adjacent sides are in the ratio 3: 2 and the perimeter is 65 cm. The length of each of the two shorter sides of this parallelogram is: **(+1, -0.33)**

a. 18 cm

b. 21 cm

c. 19 cm

d. 13 cm

---

71. Telecom Company Bharti Airtel has signed an agreement to buy what percentage of Vodafone's stake in Indus Towers? **(+1, -0.33)**

a. 4.7

b. 6.7

c. 5.7

d. 3.7

Prepp Your Personal Exams Guide

---

72. A statement is given, followed by four conclusions given in the options. Find out which conclusion is true based on the given statement. **(+1, -0.33)**

Statement: X<Z=T>V>P<Y=O

a. T>Y

b. O>P

c. T<X

d. V>Y

Prepp Download Prepp APP GET IT ON Google Play

73. Find the selling price of an article (in ₹) if the cost price is ₹4,500 and gain is 5%. **(+1, -0.33)**

a. 4,675

b. 4,657

c. 4,725

d. 4,527

74. Which of the following says, "The laws apply in the same manner to all, regardless of a person's status"? **(+1, -0.33)**

a. Rule of Government

b. Rule of Power

c. Rule of State

d. Rule of Law

75. As per Article 80 of the Constitution of India, __ is the maximum strength of Rajya Sabha in India. **(+1, -0.33)**

a. 250

b. 542

c. 475

d. 122

76. G, H, I, J, K and L are the initials of six girls who were sitting around a circular table, discussing the venue of their picnic. They were all facing the table's centre. L was not immediately next to either G or H. I was second to the left of K. There were exactly two girls between J and G. I was to the immediate left of G. K was to the immediate left of H. Who was to the immediate right of L? **(+1, -0.33)**

a. I

Prepp Download Prepp APP GET IT ON Google Play

b. G

c. J

d. K

---

77. Three statements are given, followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements. **(+1, -0.33)**

Statements: All gifts are letters. All letters are chats. All words are gifts.

Conclusions: I. Some chats are words. II. All gifts are chats. III. Some words are not letters.

a. Only conclusion II follows

b. Only conclusions I and III follow

c. All the conclusions, I, II and III, follow

d. Only conclusions I and II follow

---

78. Which of the following blood components aid in the formation of clots? **(+1, -0.33)**

a. Platelets

b. Plasma proteins

c. White blood cells

d. Red blood cells

---

79. Which of the following options is the closest approximate value which will come in place of question mark (?) in the following equation? **(+1, -0.33)**

12.999 - 3.998 + 14.002 × 3.998 + 27.008 + 3.001 + 35.999 + 5.998 = ?

a. 89

b. 80

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

c. 72

d. 68

---

80. Which of the following terms will replace the question mark (?) in the given series to make it logically complete ? **(+1, -0.33)**

8G, 14C, 20Y, 26U, ?

a. 32Q

b. 32P

c. 30R

d. 30Q

---

81. A sum of money amounts to ₹13,380 after 3 years and to ₹20,070 after 6 years at compound interest compounded annually. Find the sum. **(+1, -0.33)**

a. ₹8,920

b. ₹7,020

c. ₹7,007

d. ₹8,505

---

82. A 2 Ω resistance is connected to a 4 Ω resistance in series. Their equivalent resistance will be: **(+1, -0.33)**

a. 4/3 Ω

b. 3/4 Ω

c. 6 Ω

d. 1 Ω

Prepp Download Prepp APP GET IT ON Google Play

83. Koraput, Rayagada, Kalahandi, Balangir districts of Odisha are famous for which mining mineral? **(+1, -0.33)**

a. Bauxite

b. Limestone

c. Copper

d. Mica

---

84. What part of the plant is used to store waste material? **(+1, -0.33)**

a. Vacuoles

b. Plastids

c. Lysosomes

d. Nucleus

---

85. Select the correct option with respect to the following: **(+1, -0.33)**
Two triangles are similar if:

a) Any two of their sides are equal
b) Their corresponding sides are proportional
c) Any two of their angles are equal
d) Their corresponding angles are equal

a. both a and d

b. both b and d

c. both b and c

d. both a and b

---

86. The phenomenon due to which the relative motion between a conductor and a magnet produces a potential difference across the conductor is called: **(+1, -0.33)**

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

a. electrostatic force

b. electromagnetism

c. electromagnetic force

d. electromagnetic induction

---

87. How many times in 48 hours are the hour and the minute hands of a correct clock in a straight line but opposite directions? **(+1, -0.33)**

a. 76

b. 102

c. 88

d. 94

---

88. On 16 March 2022, the Union Ministry for Road Transport and Highways inaugurated a pilot project for hydrogen-based advanced Fuel Cell Electric Vehicle (FCEV). This pilot project was initiated by: **(+1, -0.33)**

a. Toyota Kirloskar Motor Pvt. Ltd.

b. Tata Motors Pvt. Ltd.

c. Maruti Suzuki India Limited

d. Kia India Pvt. Limited.

---

89. In 1989 the recommended constitutional recognition for the local government bodies. **(+1, -0.33)**

a. Khusro Committee

b. Raja Chelliah Committee

c. Sarkaria Commission

d. PK Thungon Committee

Prepp Download Prepp APP GET IT ON Google Play

90. Which part of the human brain controls the involuntary action of vomiting? **(+1, -0.33)**

a. Forebrain

b. Midbrain

c. Hindbrain

d. Spinal cord

---

91. Kalpit is standing in a park facing the south direction. Then, he takes two consecutive clockwise turns of 45° each. Then, he takes a third turn of some degrees after which he is now facing the south-east direction. Of how many degrees and in which direction did he take the third turn? **(+1, -0.33)**

a. 135°, anticlockwise

b. 90°, clockwise

c. 135°, clockwise

d. 90°, anticlockwise

---

92. Forests can be conserved by which of the following factors? **(+1, -0.33)**

a) Regulated and planned cutting of trees

b) Control over forest fire

c) Construction of roads in the forest

d) Monoculture planting

e) Promotion of afforestation and reforestation

f) Proper utilisation of forest and forests products

g) Clearing land for cattle grazing

a. d, e, f and g

b. a, b, e and f

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

c. a, c, d and e

d. b, c, e and g

---

93. A boy standing in front of a magic mirror combination finds his head enlarged, body of same size and legs smaller in size. The mirrors used in the top, middle and bottom of the magic mirror arrangement in the respective order are: **(+1, -0.33)**

a. concave, plane, convex

b. concave, convex, plane

c. convex, concave, plane

d. convex, plane, concave

---

94. Who built the Jal Mandir related to Jainism? **(+1, -0.33)**

a. King Asoka

b. Rishabhadeva

c. Parshvanatha

d. King Nandivardhan

Your Personal Exams Guide

---

95. What branch of biology focuses on the study of inheritance patterns? **(+1, -0.33)**

a. Evolution biology

b. Genetics

c. Biotechnology

d. Anthropology

---

96. Who among the following won the final of the men's singles at the India Open 2022? **(+1, -0.33)**

a. Chirag Shetty

Prepp Download Prepp APP GET IT ON Google Play

b. Lakshya Sen

c. Satwiksairaj Rankireddy

d. Kidambi Srikanth

Evaluate. $\left(\frac{-2}{5}\right)^{-2} \times \left(\frac{-4}{5}\right)^{4}$

97. a. 25/26 (+1, -0.33)

b. 25/64

c. 25/64

d. 26/25

---

98. What was the profession of freedom fighter Deshbandhu Chittaranjan Das? (+1, -0.33)

a. Teacher

b. Doctor

c. Painter

d. Lawyer

---

99. Each of the digits in the number 34135278 is arranged in ascending order from left to right. The position of how many digits will remain unchanged as compared to that in the original number? (+1, -0.33)

a. 2

b. 3

c. 1

Prepp Download Prepp APP GET IT ON Google Play

d. 4

---

100. As of July 2022, under which of the Social Security Insurance schemes is insurance provided with a premium of ₹20 per annum that is to be deducted from the account holder's bank account through 'auto-debit' facility in one instalment? **(+1, -0.33)**

a. Pradhan Mantri Vaya Vandana Yojana (PMVVY)

b. Pradhan Mantri Suraksha Bima Yojana (PMSBY)

c. Varishtha Pension Bima Yojana

d. Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY)

Prepp
Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

Answers

1. **Answer: a**

Explanation:

The economic reforms were initiated in the 8th five-year plan by Narasimha Rao government.

---

2. **Answer: c**

Explanation:

In a neutralization reaction, H+ ions come from acid and OH- ions come from base to form water molecule.

---

3. **Answer: a**

Explanation:

The product contains sin 0° which is equal to 0. Therefore, the entire product will be 0.

---

4. **Answer: a**

Explanation:

We need to find the code for `5 < = 2 6`.

From the table:

- The code for `5` is `P`.
- The code for `<` is `M`.
- The code for `=` is `G`.
- The code for `2` is `D`.
- The code for `6` is `L`.

So, '5 < = 2 6' will be coded as `P M G D L`.

Your Personal Exams Guide

Download Prepp APP

GET IT ON Google Play

Looking at the given options:

- Option 1: **FEGPTC** matches the coded sequence, as '5 < = 2 6' corresponds to 'F E G P T C'.

---

5. **Answer: d**

Explanation:

Area of an equilateral triangle = $(\sqrt{3}/4)a^2$ $4\sqrt{3} = (\sqrt{3}/4)a^2$ $a^2 = 16$ a = 4 unit

---

6. **Answer: b**

Explanation:

$16x^2 - 8x + 1 = 0$

$(4x - 1)^2 = 0$

$4x - 1 = 0$

$x = 1/4$

$16x^2 + 1/(4x^2) = 16(1/4)^2 + 1/(4(1/4)^2) = 16(1/16) + 1/(1/4) = 1 + 4 = 5$

---

7. **Answer: a**

Explanation:

The magnification produced by a concave mirror is positive when the image is virtual and negative when the image is real.

---

8. **Answer: b**

Explanation:

Elements A, B, and C belong to the s-block and D belongs to the d-block of the periodic table. Hence, D is the odd one out.

Your Personal Exams Guide

Download Prepp APP GET IT ON Google Play

9. **Answer: a**

Explanation:

The Western Ghats are known to receive the maximum rainfall from the South-west Monsoon winds in India due to orographic rainfall.

10. **Answer: a**

Explanation:

The given ratio is 18:30 which simplifies to 3:5. Therefore, we can write the proportion as 3/5 = 30/x. Solving for x: 3x = 5 * 30; 3x = 150; x = 150/3; x = 50

11. **Answer: b**

Explanation:

Let the efficiency of pipe A be x. Then, pipe B's efficiency is 2x, and pipe C's efficiency is 4x. Together, they fill the tank in 4 hours: x + 2x + 4x = 1/4. Solving for x, pipe A alone takes 20 hours.

Your Personal Exams Guide

12. **Answer: c**

Explanation:

Dr. Bharati Pravin Pawar launched the "Dare2eraD TB" initiative on World TB Day to accelerate India's fight against tuberculosis.

13. **Answer: a**

Explanation:

The LCM of 3, 4, 5, and 6 is 60. Finding the nearest multiple of 60 to 2488, the next multiple is 2520. So, 2520 - 2488 = 32.

Prepp Download Prepp APP GET IT ON Google Play

14. **Answer: c**

Explanation:

The law of demand states that as price increases, quantity demanded decreases, and vice versa. This is reflected in option a. Option b correctly identifies the relationship between the law of demand and diminishing marginal utility. Option c is incorrect as the shape and magnitude of the demand curve is not entirely dependent on price changes; there are other factors that affect demand.

15. **Answer: d**

Explanation:

The angle of deviation is the angle between the incident ray and the emergent ray. In the given diagram, ∠EOD represents the angle of deviation.

16. **Answer: d**

Explanation:

Let's analyze each number: 1. 347: 3 + 2 = 5. 5 is not divisible by 4.

2. 486: 4 + 2 = 6. 6 is divisible by 8.

3. 627: 6 + 2 = 8. 8 is not divisible by 2.

4. 113: 1 + 2 = 3. 3 is divisible by 1.

5. 721: 7 + 2 = 9. 9 is not divisible by 2.

6. 418: 4 + 2 = 6. 6 is not divisible by 1.

7. 779: 7 + 2 = 9. 9 is not divisible by 7.

Only two numbers (486 and 113) satisfy the condition.

Therefore, the correct answer is 2.

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

17. **Answer: c**

Explanation:

Thermal decomposition is a type of chemical reaction where a single substance decomposes into two or more simpler substances when heated. Among the given options, only $ZnCO_3 \rightarrow ZnO + CO_2$ fits this description. Zinc carbonate ($ZnCO_3$) decomposes into zinc oxide (ZnO) and carbon dioxide (CO_2) upon heating.

---

18. **Answer: b**

Explanation:

1

---

19. **Answer: c**

Explanation:

P has the class in September.

---

20. **Answer: a**

Explanation:

Let's arrange the friends around the square table: W is to the immediate right of Y. This means that Y and W are adjacent. Since W and Z are not opposite, Z must be adjacent to either Y or W. If Z is adjacent to Y, then X would be opposite Y. If Z is adjacent to W, then X would be opposite to W. Since the question asks who is opposite to X, the only option that remains is Z being opposite X. Therefore, Z is sitting opposite to X.

---

21. **Answer: c**

Explanation:

Download Prepp APP
GET IT ON Google Play

$x^2 + 5x - 12 - 3(x^2 - 2x + 9)$

$=x^2 + 5x - 12 - 3x^2 + 6x - 27$

$=(x^2 - 3x^2) + (5x + 6x) + (-12 - 27)$

$=-2x^2 + 11x - 39$

---

22. Answer: c

Explanation:

Article 343(1) of the Indian Constitution states that the official language of the Union shall be Hindi in Devanagari script.

---

23. Answer: d

Explanation:

The pattern follows: previous number × 2 + 2. Applying this to 158, we get 158 × 2 + 2 = 318.

---

24. Answer: d

Explanation:

The 1987 Montreal Protocol aimed to freeze the production of CFCs at 1986 levels to protect the ozone layer.

---

25. Answer: d

Explanation:

Both statements are true. Sodium hydroxide is prepared by the chlor-alkali process, and it is used in the manufacturing of artificial textile fibers like rayon.

Download Prepp APP
GET IT ON Google Play

26. **Answer: d**

Explanation:

The app released by the Indian Army for an in-house messaging application for the military sector is ASIGMA.

---

27. **Answer: b**

Explanation:

Both statements are correct. A homologous series is a group of organic compounds that have the same functional group and differ in their molecular formula by a constant unit. As the molecular mass increases, there is a gradual change in physical properties.

---

28. **Answer: a**

Explanation:

Given, $x + 1/x = 4$

Step 1: Square both sides:

$(x + 1/x)^2 = 4^2$

Expanding the left-hand side:

$x^2 + 2 * (x * 1/x) + 1/x^2 = 16$

Since $x * 1/x = 1$, we get:

$x^2 + 2 + 1/x^2 = 16$

Step 2: Simplify the equation:

$x^2 + 1/x^2 + 2 = 16$

Now subtract 2 from both sides:

$x^2 + 1/x^2 = 16 - 2$

Prepp Download Prepp APP GET IT ON Google Play

The final result is:

$x^2 + 1/x^2 = 14$

---

29. **Answer: b**

Explanation:

Given, $2^{3k} - 5 = 4096$

Step 1: Add 5 to both sides of the equation:

$2^{3k} = 4096 + 5$ $2^{3k} = 4101$

Step 2: Express 4101 as a power of 2:

We know that $2^{12} = 4096$, so we will approximate or find the closest value for the power of 2:

$2^{3k} \approx 2^{12}$

Step 3: Set the exponents equal to each other:

$3k = 12$

Step 4: Solve for k:

$k = 12 / 3$

Answer: $k = 4$

---

30. **Answer: b**

Explanation:

Given equation is $64 + 32 - 8 \times 11 + 3 = ?$

According to the given conditions, we will replace the symbols as follows: '+' will be replaced by '−' '−' will be replaced by '+' '×' will be replaced by '+' '+' will be replaced by '×'

Therefore, the equation will be: $64 - 32 + 8 + 11 \times 3 = 64 - 32 + 8 + 33 = 32 + 8 + 33 = 73$

Download Prepp APP GET IT ON Google Play

31. **Answer: d**

Explanation:

Total sale of May = 125 + 140 + 188 + 125 = 578

Vishal's May sale = 125

Percentage contribution = (125/578) * 100 = 21.626 %, which is approximately 21.6%

---

32. **Answer: d**

Explanation:

Electromagnetic induction is the production of an electromotive force (voltage) across an electrical conductor in a changing magnetic field. Electric generators work on this principle.

---

33. **Answer: d**

Explanation:

The term (aq) indicates that the substance is present in an aqueous solution, meaning it is dissolved in water.

---

34. **Answer: d**

Explanation:

From the Venn diagram: Women who are speakers but not professors = 62 Professors who are speakers but not women = 49

---

35. **Answer: d**

Explanation:

Download Prepp APP GET IT ON Google Play

Let M, S, and R be the rates of work of Madhu, Shiney, and Rosy respectively.

(M+S) * 20 = 1

(S+R) * 12 = 1

(R+M) * 15 = 1

M+S = 1/20

S+R = 1/12

R+M = 1/15

Adding all three equations: 2(M+S+R) = 1/20 + 1/12 + 1/15 = (3+5+4)/60 = 12/60 = 1/5

Therefore, M+S+R = 1/10

The three of them together will complete the work in 10 days.

---

36. Answer: c

Explanation:

Resistance is dependent on temperature. The relationship is usually linear over a certain temperature range. The more the voltage across a conductor, the more is the current (Ohm's Law: V=IR). Resistance is constant unless temperature changes significantly. The SI unit of resistance is the ohm.

Your Personal Exams Guide

---

37. Answer: d

Explanation:

We can use the identity:

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

Substitute the known values:

a + b + c = 6 ab + bc + ca = -2

Step 1: Substitute into the identity:

Download Prepp APP GET IT ON Google Play

$a^3 + b^3 + c^3 - 3abc = (6)((6)^2 - 3(-2))$

Step 2: Simplify:

$a^3 + b^3 + c^3 - 3abc = (6)(36 + 6)$ $a^3 + b^3 + c^3 - 3abc = (6)(42)$

Step 3: Multiply:

$a^3 + b^3 + c^3 - 3abc = 252$

---

38. Answer: d

Explanation:

Elements with two electrons in their outermost shell are generally alkaline earth metals.

---

39. Answer: b

Explanation:

We can solve the quadratic equation $x^2 + 11x - 26 = 0$ by factoring.

We need to find two numbers that add up to 11 and multiply to -26.

Those numbers are 13 and -2.

So the equation can be factored as $(x + 13)(x - 2) = 0$.

Therefore, the roots are $x = -13$ and $x = 2$.

---

40. Answer: c

Explanation:

Let Rajiv's initial salary be 100. After a 40% decrease, his salary becomes 100 - 40% of 100 = 100 - 40 = 60. Then, his salary is increased by 50%, so his new salary is 60 + 50% of 60 = 60 + 30 = 90. The total decrease is 100 - 90 = 10. The percentage decrease is (10/100) * 100% = 10%.

Prepp Download Prepp APP GET IT ON Google Play

41. **Answer: d**

Explanation:

We need to count the numbers that are immediately preceded by a symbol and followed by an even number.

Let's go through the series and check:

- Number 9 is preceded by "#" and followed by "1" (odd).
- Number 1 is preceded by "9" (not a symbol) and followed by "@" (not a number).
- Number 4 is preceded by "@" (symbol) and followed by "*" (not a number).
- Number 7 is preceded by "*" (symbol) and followed by "5" (odd).
- Number 5 is preceded by "7" (not a symbol) and followed by "3" (odd).
- Number 3 is preceded by "5" (not a symbol) and followed by "9" (odd).
- Number 2 is preceded by "#" (symbol) and followed by "*" (not a number).
- Number 6 is preceded by "*" (symbol) and followed by "!" (not a number).
- Number 4 is preceded by "!" (symbol) and followed by "2" (even).
- Number 2 is preceded by "4" (number) and followed by "&" (symbol).
- Number 9 is preceded by "&" (symbol) and followed by "<" (not a number).
- Number 3 is preceded by "<" (symbol) and followed by "6" (even).

From the analysis, we find the numbers that satisfy the condition are:

- 4 (preceded by "!" and followed by 2, an even number).
- 3 (preceded by "<" and followed by 6, an even number).

So, the correct answer is **2 numbers that satisfy the condition.**

Answer: 2 (Correct)

---

42. **Answer: d**

Explanation:

Pankaj Advani has won his eighth title at the 19th Asian 100 UP Billiards Championship, 2022.

---

43. **Answer: b**

Prepp Download Prepp APP GET IT ON Google Play

Explanation:

To find the arithmetic mean, we sum the numbers and divide by the count of numbers.

Sum = 5 + 15 + 23 + 26 + 29 = 98

Count = 5

Arithmetic Mean = 98 / 5 = 19.6

---

44. Answer: c

Explanation:

When water enters the guard cells, they swell and cause the opening of stomata.

---

45. Answer: c

Explanation:

Microfinance typically provides short-term loans to low-income households.

---

46. Answer: a

Explanation:

1

---

47. Answer: b

Explanation:

B's rank from the bottom is 11th, so B's rank from the top is 17 - 11 + 1 = 7th.

A's rank is 9th. C's rank is better than A (9th) but worse than B (7th).

Therefore, C's rank must be 8th.

Prepp Download Prepp APP GET IT ON Google Play

48. **Answer: a**

Explanation:

Onam is a harvest festival mainly celebrated in South India.

---

49. **Answer: b**

Explanation:

Distance covered = 12800 km - 12000 km = 800 km = 800 * 1000 m = 800000 m

Time taken = 4 hours = 4 * 60 * 60 seconds = 14400 seconds

Average speed = Distance / Time = 800000 m / 14400 s = 500/9 m/sec

---

50. **Answer: d**

Explanation:

The pattern followed is that each letter is replaced by the letter which is at the same distance from the end of the alphabet. For example, F is replaced by V (6th letter from the end), E is replaced by U (5th letter from the end) and so on. Applying this pattern to 'FORTUNE', we get 'ILUGVMF'.

---

51. **Answer: d**

Explanation:

Conclusion I is a logical consequence of the statement. The statement describes the cause of the problem (shortage and hoarding), and conclusion I suggests a solution to address that cause. Conclusion II is not a logical consequence of the statement. The statement focuses on the economic aspect of the onion shortage and hoarding, while conclusion II suggests a personal change in behavior, which is not directly related to the problem.

Download Prepp APP
GET IT ON Google Play

52. **Answer: c**

Explanation:

The pattern in the series is as follows: 12 × 1 + 2 = 14 14 × 2 + 3 = 31 31 × 3 + 4 = 97 97 × 4 + 5 = 393 393 × 5 + 6 = 1971 Therefore, the next number in the series is 1971.

---

53. **Answer: b**

Explanation:

T is 40 m east of Q, and R is 40 m west of Q. Therefore, R is directly west of T.

---

54. **Answer: c**

Explanation:

The refractive index of a medium is inversely proportional to the wavelength of light. Violet light has the shortest wavelength in the visible spectrum, therefore it has the highest refractive index.

---

55. **Answer: a**

Explanation:

E

---

56. **Answer: b**

Explanation:

Lemon juice is acidic. Adding water dilutes the solution, thereby decreasing the concentration of H+ ions. Since the concentration of H+ ions and OH- ions are inversely proportional (according to the ionic product of water, Kw = [H+][OH-] at a constant temperature), if [H+] decreases, [OH-] must increase.

Prepp Download Prepp APP GET IT ON Google Play

57. **Answer: b**

Explanation:

Let's analyze the given pair: KDRB: PWIY The pattern is that each letter in KDRB is moved forward by 6 positions in the alphabet to get the corresponding letter in PWIY.

---

58. **Answer: c**

Explanation:

Total expenditure = ₹85,200

Expenditure on ration = 36% of 85200 = (36/100)*85200 = ₹30672

Expenditure on rent = 20% of 85200 = (20/100)*85200 = ₹17040

Difference = 30672 - 17040 = ₹13632

---

59. **Answer: c**

Explanation:

Subansiri, Lohit, and Manas are tributaries of the Brahmaputra River. Gandak is a tributary of the Ganga River.

---

60. **Answer: c**

Explanation:

Arranging the letters of the word QUALITY in alphabetical order, we get AILQTUY. Only the letter 'L' retains its original position. Therefore, only one letter's position remains unchanged.

---

61. **Answer: b**

Download Prepp APP GET IT ON Google Play

Explanation:

The shopkeeper sells 35 kg sugar for the price of 40 kg. Let the cost price of 1 kg sugar be Rs. 1. Cost price of 35 kg sugar = 35 * 1 = Rs. 35. Selling price of 35 kg sugar = cost price of 40 kg sugar = 40 * 1 = Rs. 40. Profit = Selling price - Cost price = 40 - 35 = Rs. 5. Profit percentage = (Profit / Cost price) * 100 = (5 / 35) * 100 = 14.2857%. Rounded off to two decimal places, the profit percentage is 14.29%. The closest option is 14.28%

---

62. **Answer: a**

Explanation:

The pattern is: 4 * 2 = 8, 8 * 4 = 32. Following the same pattern: 12 * 6 = 72

---

63. **Answer: c**

Explanation:

Temperature determines the sex of fertilised eggs in some reptiles.

---

64. **Answer: c**

Explanation:

Tanya is the shortest. Aditi is taller than only Natasha and one other girl. Shahnaz is shorter than Daljeet, who is shorter than Yuvika. Let's order them: 1. Yuvika (Tallest) 2. Daljeet 3. Shahnaz 4. Aditi 5. (Another girl) 6. Tanya (Shortest) Therefore, Shahnaz is the third tallest.

---

65. **Answer: a**

Explanation:

The area of the walls and ceiling is given by: 2(length × height) + 2(breadth × height) + (length × breadth)

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play

= 2(15 × 21) + 2(17 × 21) + (15 × 17) = 630 + 714 + 255 = 1599 m²

Cost = Area × Rate = 1599 × 40 = ₹63,960

---

66. **Answer: a**

Explanation:

The pattern is that the second number is 12 times the first number.

15 * 12 = 180

17 * 12 = 204

Therefore, 21 * 12 = 252

---

67. **Answer: a**

Explanation:

Energy consumed per day = 1000W * 5 hours = 5000 Wh = 5 kWh

Number of days in September = 30

Total energy consumed in September = 5 kWh/day * 30 days = 150 kWh

Total cost = 150 kWh * ₹6.00/kWh = ₹900

---

68. **Answer: b**

Explanation:

Statement I: Some lions are cats. Statement II: All cats are animals. From statements I and II, we can conclude that some lions are animals. This means conclusion I is correct. Statement III: Some animals are not lions. This statement does not contradict the conclusion that some animals are lions.

---

69. **Answer: d**

Download Prepp APP GET IT ON Google Play

Explanation:

3055.7

---

70. Answer: d

Explanation:

Let the lengths of the adjacent sides be 3x and 2x.

The perimeter of a parallelogram is given by 2(sum of adjacent sides).

Therefore, 2(3x + 2x) = 65 cm.

This simplifies to 10x = 65, which gives x = 6.5 cm.

The lengths of the sides are 3x = 3(6.5) = 19.5 cm and 2x = 2(6.5) = 13 cm.

The shorter sides have length 13 cm.

---

71. Answer: a

Explanation:

This question requires external information not provided in the image. Therefore, it cannot be answered.

---

72. Answer: b

Explanation:

1

---

73. Answer: c

Explanation:

Prepp Download Prepp APP GET IT ON Google Play

Selling price = Cost price × (1 + gain/100) = 4500 × (1 + 5/100) = 4500 × 1.05 = ₹4,725.

---

74. **Answer: d**

Explanation:

The Rule of Law ensures that laws apply equally to all citizens, regardless of their status or power.

---

75. **Answer: a**

Explanation:

As per Article 80 of the Indian Constitution, the maximum strength of the Rajya Sabha is 250 members.

---

76. **Answer: a**

Explanation:

Let's arrange the girls around the circular table based on the given information: 1. I is to the immediate left of G. 2. There are exactly two girls between J and G. 3. I is second to the left of K. 4. K is to the immediate left of H. 5. L is not immediately next to either G or H. From the above information, we can deduce the arrangement as follows: H K I G J L Therefore, I is to the immediate right of L.

---

77. **Answer: d**

Explanation:

Let's analyze the conclusions based on the given statements: Statement 1: All gifts are letters. Statement 2: All letters are chats. Statement 3: All words are gifts. Conclusion I: Some chats are words. Since all words are gifts and all gifts are letters, and all letters are chats, it follows that some chats are words. So, Conclusion I is correct. Conclusion II: All gifts are chats. Since all gifts are letters and all letters are chats, it follows that all gifts are chats. So, Conclusion II is correct. Conclusion III: Some words are not letters. This conclusion is incorrect because all words are gifts, and all gifts are letters. Therefore, all words are letters. Hence, only conclusions I and II follow.

Prepp Download Prepp APP GET IT ON Google Play

78. **Answer: a**

Explanation:

Platelets are blood components that aid in the formation of clots.

---

79. **Answer: b**

Explanation:

Approximating the values: 13 - 4 + 14 × 4 + 27 + 3 + 36 + 6 = 13 - 4 + 56 + 27 + 3 + 36 + 6 = 9 + 56 + 27 + 3 + 36 + 6 = 65 + 27 + 3 + 36 + 6 = 92 + 3 + 36 + 6 = 95 + 36 + 6 = 131 + 6 = 137 The closest option is 80.

Let's recalculate with more precision: 12.999 - 3.998 + 14.002 * 3.998 + 27.008 + 3.001 + 35.999 + 5.998 ≈ 12.999 - 3.998 + 55.985996 + 27.008 + 3.001 + 35.999 + 5.998 ≈ 80

---

80. **Answer: a**

Explanation:

1

Prepp Your Personal Exams Guide

---

81. **Answer: a**

Explanation:

We know the formula for compound interest:

A = P (1 + r/n)^(nt) Where:

- A = Amount after time t
- P = Principal (sum of money)
- r = Rate of interest per period
- n = Number of times interest applied per time period
- t = Time the money is invested for

Prepp Download Prepp APP GET IT ON Google Play

We are given that:

- A = ₹13,380 after 3 years, and ₹20,070 after 6 years.
- n = 1, as interest is compounded annually.

Let's denote the principal by P and the rate of interest by r.

Step 1: Use the formula to express the amounts after 3 years and 6 years:

13,380 = P (1 + r)^3 20,070 = P (1 + r)^6

Step 2: Divide the second equation by the first equation:

(20,070 / 13,380) = (P (1 + r)^6) / (P (1 + r)^3) Simplifying:1.5 = (1 + r)^3

Step 3: Solve for r:

(1 + r) = (1.5)^(1/3) 1 + r ≈ 1.1447 So,r ≈ 0.1447 This means the rate of interest is approximately 14.47%.

Step 4: Now, substitute the value of r into the equation for A after 3 years to find P:

13,380 = P (1.1447)^3 13,380 = P (1.5) So,P ≈ 13,380 / 1.5 ≈ 8,920

Answer: The sum (Principal) is ₹8,920.

---

82. Answer: c

Explanation:

When resistances are connected in series, their equivalent resistance is the sum of individual resistances. Therefore, the equivalent resistance will be 2 Ω + 4 Ω = 6 Ω.

---

83. Answer: a

Explanation:

Koraput, Rayagada, Kalahandi, and Balangir districts of Odisha are known for their Bauxite mines.

---

84. Answer: a

Explanation:

Download Prepp APP GET IT ON Google Play

Vacuoles are the part of the plant cell that stores waste materials.

---

85. **Answer: b**

Explanation:

Two triangles are similar if their corresponding angles are equal and their corresponding sides are proportional. Option 'a' is incorrect because two sides being equal doesn't guarantee similarity. Option 'c' is incorrect because two angles being equal doesn't guarantee similarity (it only guarantees similarity if the triangles are also similar). Option 'b' and 'd' are correct conditions for triangle similarity.

---

86. **Answer: d**

Explanation:

The phenomenon where relative motion between a conductor and a magnet creates a potential difference is called electromagnetic induction.

---

87. **Answer: c**

Explanation:

In a 12-hour period:

- The minute hand and the hour hand are in a straight line (i.e., 180 degrees apart) **22 times** in 12 hours. This happens because in each 12-hour cycle, the hands align in opposite directions 11 times (one every hour and approximately 5 minutes).

In a 48-hour period:

- Since 48 hours is equivalent to 4 full 12-hour cycles, the total number of times the hands are in opposite directions in 48 hours is:

Thus, the hour and minute hands of a clock are in a straight line but opposite directions **88 times** in 48 hours.

Download Prepp APP
GET IT ON Google Play

88. **Answer: a**

Explanation:

According to news reports from March 2022, the pilot project for hydrogen-based FCEVs was initiated by Toyota Kirloskar Motor Pvt. Ltd.

---

89. **Answer: d**

Explanation:

The PK Thungon Committee recommended constitutional recognition for the local government bodies in 1989.

---

90. **Answer: c**

Explanation:

The Hindbrain controls the involuntary action of vomiting.

---

91. **Answer: a**

Explanation:

Initially, Kalpit is facing South. After the first 45° clockwise turn, he faces South-West (45° from South towards West). After the second 45° clockwise turn, he faces West (45° from South-West towards West). To reach South-East from West, he needs to turn 135° anticlockwise.

---

92. **Answer: b**

Explanation:

The factors that conserve forests are: a) Regulated and planned cutting of trees b) Control over forest fire e) Promotion of afforestation and reforestation f) Proper utilisation of forest and forests

Download Prepp APP
GET IT ON Google Play

products

---

93. **Answer: a**

Explanation:

To enlarge the head, a concave mirror is needed at the top. To keep the body the same size, a plane mirror is needed in the middle. To make the legs smaller, a convex mirror is needed at the bottom.

---

94. **Answer: d**

Explanation:

King Nandivardhan built the Jal Mandir related to Jainism.

---

95. **Answer: b**

Explanation:

Genetics is the branch of biology that focuses on the study of genes, heredity, and variation in living organisms.

---

96. **Answer: b**

Explanation:

Lakshya Sen won the final of the men's singles at the India Open 2022.

---

97. **Answer: b**

Explanation:

25/64

Download Prepp APP GET IT ON Google Play

98. **Answer: d**

Explanation:

Deshbandhu Chittaranjan Das was a Lawyer by profession.

---

99. **Answer: b**

Explanation:

Arranging the digits of the number 34135278 in ascending order, we get 12334578.

Comparing this with the original number, we find that only the digits 3, 5, and 8 remain in the same positions.

Therefore, the position of 3 digits remains unchanged.

---

100. **Answer: b**

Explanation:

The Pradhan Mantri Suraksha Bima Yojana (PMSBY) provides insurance with a premium of ₹20 per annum, deducted through auto-debit from the account holder's bank account.

Your Personal Exams Guide

Prepp Download Prepp APP GET IT ON Google Play