Test Date	18/12/2024
Test Time	12:45 PM - 2:15 PM
Subject	RRB JE DMS CMA CS MS

* Note
Correct Answer will carry 1 mark per Question.
Incorrect Answer will carry 1/3 Negative mark per Question.

1. Options shown in green color with a tick icon are correct.
2. Chosen option on the right of the question indicates the option selected by the candidate.

Section : RRB JE, DMS, CMA, CS, MS CBT-1

Q.1	A man sold an article for ₹360 by first giving a d% discount on its marked price, and then another discount having the same nominal value (in ₹). If the marked price of the article is ₹2250, then what is the value of d?
Ans	✗ 1. 41
	✗ 2. 38
	✓ 3. 42
	✗ 4. 45

Q.2	Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of ::? # : UOK :: HBX : %
Ans	✗ 1. # = TJF, % = MGC
	✗ 2. # = PJF, % = NGC
	✗ 3. # = PJF, % = MGO
	✓ 4. # = PJF, % = MGC

Q.3	The marks scored by 10 students are given below. 18, 13, 14, 18, 14, 17, 15, 11, 13, 18 The mode of the data is:
Ans	✗ 1. 13
	✓ 2. 18
	✗ 3. 14
	✗ 4. 11

Q.4	What does the thumb represent in Fleming's Right-Hand Rule?
Ans	✓ 1. Direction of motion
	✗ 2. Direction of voltage
	✗ 3. Direction of magnetic field
	✗ 4. Direction of induced current

Q.5	119 is related to 205 following a certain logic. Following the same logic, 145 is related to 231. To which of the given options is 132 related, following the same logic?
	(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding/subtracting/multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)
Ans	✗ 1. 228
	✗ 2. 215
	✗ 3. 221
	✔ 4. 218

Q.6	A and B can do a piece of work in 2 days and 42 days, respectively. The number of days [Correct to one decimal place] required to complete the work if both A and B work together is:
Ans	✔ 1. 1.9
	✗ 2. 5.1
	✗ 3. 3.3
	✗ 4. 1.3

Q.7	In a certain code language, 'A + B means 'A is the son of B', 'A − B means 'A is the brother of B', 'A × B means 'A is the wife of B' and 'A ÷ B means 'A is the father of B'. How is S related to H if 'S + D × F ÷ G − H'?
Ans	✔ 1. Brother
	✗ 2. Son
	✗ 3. Father
	✗ 4. Husband

Q.8	If the distance between A and B is 530 Km. From A, Namit goes to B with speed 37 km/h and return to A with the speed 77 km/h. Find the average speed of Namit.(rounded off to two decimal place)
Ans	✗ 1. 46.51 km/h
	✔ 2. 49.98 km/h
	✗ 3. 44.54 km/h
	✗ 4. 44.47 km/h

Q.9	Washing soda is represented by $Na_2CO_3.xH_2O$. The value of 'x' is equal to:
Ans	✗ 1. 2
	✔ 2. 10
	✗ 3. 6
	✗ 4. 8

Q.10	The larger of two supplementary angles is 22° more than the smaller. The smaller angle (in degree) is:
Ans	✔ 1. 79
	✗ 2. 84
	✗ 3. 86
	✗ 4. 88

Q.11	Where did Dr. Jitendra Singh, Union Minister of State for Science and Technology, inaugurate India's first Demonstration Facility for Biopolymers in October 2024?
Ans	✘ 1. Hyderabad
	✘ 2. Bhopal
	✔ 3. Pune
	✘ 4. Chennai

Q.12	Who launched 'Create in India Challenge-Season One' in New Delhi on 22 August 2024, the run-up to the World Audio Visual and Entertainment Summit?
Ans	✘ 1. Nitin Gadkari
	✘ 2. Amit Shah
	✘ 3. Narendra Modi
	✔ 4. Ashwini Vaishnaw

Q.13	A solution has a pH of 8. If it is diluted with an equal volume of water, what will happen to its pH?
Ans	✘ 1. The pH will decrease.
	✘ 2. The pH will increase.
	✘ 3. The pH will remain the same.
	✔ 4. It will become neutral.

Q.14	Which of the following articles deals with elections to the House of the People and to the legislative assemblies of state to be on the basis of adult suffrage?
Ans	✔ 1. 326
	✘ 2. 340
	✘ 3. 352
	✘ 4. 318

Q.15	Twelve years ago, the age of Reena's mother was three times the age of Reena. Two years hence, the mother's age will be 2 times the age of Reena. Find the ratio of the present ages of Reena and her mother.
Ans	✘ 1. 5 : 9
	✘ 2. 27 : 13
	✔ 3. 13 : 27
	✘ 4. 9 : 11

Q.16	The average price of three items of furniture is Rs 16890. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is
Ans	✔ 1. 10134
	✘ 2. 3378
	✘ 3. 5630
	✘ 4. 7882

Q.17	Select the pair which follows the same pattern as that followed by the two set of pairs given below. Both pairs follow the same pattern. PMN : RPI VHS : XKN
Ans	✘ 1. JPQ : LSM
	✔ 2. NFF : PIA
	✘ 3. TIH : VMC
	✘ 4. PTV : RWR

Q.18 Find the value of $2.3\overline{8} \div 0.5\overline{4}$.

Ans

✓ 1. $4\dfrac{19}{49}$

✗ 2. $3\dfrac{17}{21}$

✗ 3. $5\dfrac{26}{51}$

✗ 4. $6\dfrac{29}{57}$

Q.19 Which of the following devices operates based on the heating effect of electric current?

Ans

✗ 1. Transformer

✗ 2. Generator

✓ 3. Electric iron

✗ 4. Electric motor

Q.20 If the mean proportional of P and 125 is 100, then find the value of P.

Ans

✗ 1. 77

✓ 2. 80

✗ 3. 79

✗ 4. 82

Q.21 B, C, E, F and H have different heights. Only C is taller than B. E is taller than H. Only two people have heights between F and C. How many people have heights between H and B?

Ans

✓ 1. Two

✗ 2. One

✗ 3. Three

✗ 4. Four

Q.22 Find the value of $\sin^2 63° + \sin^2 27° + \cos^2 17° + \cos^2 73° + \cos^2 90°$.

Ans

✗ 1. 1

✓ 2. 2

✗ 3. −1

✗ 4. 0

Q.23 Mahatma Gandhi started his famous 'Salt march' accompanied by _____ of his trusted volunteers.

Ans

✗ 1. 51

✗ 2. 94

✗ 3. 39

✓ 4. 78

Q.24 If A's salary is 72 % more than that of B, then how much percent is B's salary less than that of A (correct to 2 decimal places)?

Ans

✗ 1. 44.19%

✓ 2. 41.86%

✗ 3. 45.3%

✗ 4. 44.24%

Q.25	Which reactants are used to prepare bleaching powder?
Ans	✗ 1. Lime and sulphuric acid
	✗ 2. Calcium hydroxide and hydrochloric acid
	✓ 3. Chlorine gas and dry calcium hydroxide
	✗ 4. Chlorine and water

Q.26	Which process ensures half the amount of DNA in reproductive cells as compared to non-reproductive cells?
Ans	✗ 1. Amitosis
	✓ 2. Meiosis
	✗ 3. Cytokinesis
	✗ 4. Mitosis

Q.27	In the context of Buddhist architecture, what is a 'chaitya'?
Ans	✗ 1. A decorative column
	✗ 2. A residential space for monks
	✓ 3. A hall for prayer and assembly
	✗ 4. A type of stupa

Q.28	The product of the reaction between ethanol and acetic acid is:
Ans	✗ 1. acetate
	✓ 2. ester
	✗ 3. methanol
	✗ 4. ethanal

Q.29	Baking soda, commonly used in households, is also known by its chemical name:
Ans	✗ 1. calcium carbonate
	✗ 2. sodium carbonate
	✓ 3. sodium bicarbonate
	✗ 4. magnesium hydroxide

Q.30	When a solution contains an equal number of H^+ and OH^- ions, then the pH of the solution is:
Ans	✗ 1. pH > 12
	✗ 2. pH < 3
	✗ 3. pH > 3 but < 5
	✓ 4. pH = 7

Q.31	What is the process of fusion of the male and female gametes called in plants?
Ans	✓ 1. Fertilisation
	✗ 2. Germination
	✗ 3. Propagation
	✗ 4. Pollination

Q.32	What is the shape of the magnetic field lines inside a solenoid?
Ans	✓ 1. Straight and parallel
	✗ 2. Elliptical
	✗ 3. Circular
	✗ 4. Randomly oriented

Q.33	$\dfrac{(a^4 \times b^3 \times c^4)}{(a^9 \times b^4 \times c^8)}$ in simplified form is:
Ans	✗ 1. $(a^7) \times (b^9) \times (c^8)$
	✗ 2. $(a^{-9}) \times (b^{-2}) \times (c^{-2})$
	✗ 3. $(a^7) \times (b^8) \times (c^{-9})$
	✓ 4. $(a^{-5}) \times (b^{-1}) \times (c^{-4})$

Q.34	Which of the following Constitutional amendments inserts the Special officer for linguistic minorities, who is known as the Commissioner for Linguistic Minorities in India (CLM), to investigate all the matters relating to the safeguards provided for the linguistic minorities in India under the Constitution and report to the President?
Ans	✗ 1. 2nd Constitutional Amendment Act,1952
	✗ 2. 11th Constitutional Amendment Act, 1965
	✗ 3. 10th Constitutional Amendment Act, 1960
	✓ 4. 7th Constitutional Amendment Act, 1956

Q.35	In a series circuit, if one of the resistors is removed or broken, the current in the circuit will _____.
Ans	✗ 1. increase
	✗ 2. stay the same
	✗ 3. decrease
	✓ 4. become zero

Q.36	Study the given diagram carefully and answer the question that follows. The numbers in different sections indicate the number of persons who own the given brands of car. How many person own both MS and WB but not HM? (NOTE: You have to take the given data to be true even if they seem to be at variance from commonly known facts.)

MS

HM

14   6   8

6

12   4

20

WB

Ans	✗ 1. 18
	✓ 2. 12
	✗ 3. 34
	✗ 4. 8

Q.37	In a certain code language, 'pillow blanket bed' is coded as 'ma ph st', 'bed window door' is coded as 'cd le ma' and 'door pillow wall' is coded as 'st bq cd'. (All the codes are two-letter codes only.) What is the code for 'wall' in that language?
Ans	✔ 1. bq
	✘ 2. le
	✘ 3. st
	✘ 4. cd

Q.38	Two taps can fill a cistern in 2 hours and 51 hours respectively. A third tap can empty it in 51 hours. How long (in hours) will it take to fill the empty cistern, if all of them are opened together?
Ans	✘ 1. 5
	✘ 2. 3
	✘ 3. 4
	✔ 4. 2

Q.39	A question is given, followed by two statements labelled I and II. Identify which of the statements is/are sufficient to answer the question. A, B, C, D and E are sitting in a straight line facing north. Who sits on the extreme left end? (I) D sits second to the right of C. (II) Exactly two people sit between B and D.
Ans	✔ 1. Both Statements I and II put together are not sufficient to answer the question.
	✘ 2. Data in Statement I alone is sufficient to answer the question, while data in Statement II is not.
	✘ 3. Data in Statement II alone is sufficient to answer the question, while data in Statement I is not.
	✘ 4. Both Statements I and II put together (and not independently) are sufficient to answer the question.

Q.40	Which of the following is an example of regeneration in plants?
Ans	✘ 1. Budding in hydra
	✘ 2. Binary fission in bacteria
	✘ 3. Reproduction in humans
	✔ 4. Growth of a new plant from a cutting

Q.41	Seven boxes, A, B, C, D, X, Y and Z, are kept one over the other but not necessarily in the same order. Only three boxes are kept above B. Only one box is kept between C and B. Only three boxes are kept between C and Y. Y is kept at some place above B. Z is kept immediately below Y. A is kept at one of the places above X. D is not kept immediately above or below C. Which box is kept at the lowermost position?
Ans	✘ 1. Z
	✘ 2. C
	✔ 3. X
	✘ 4. B

Q.42	Seven people, B, D, E, F, P, Q and R, are sitting in a row, facing north. Only three people sit between R and E. F sits to the immediate left of E. No one sits to the right of B. Only two people sit between B and F. P sits to the immediate right of Q. How many people sit between D and P?
Ans	✔ 1. Two
	✘ 2. Three
	✘ 3. One
	✘ 4. Four

Q.43 Which state hosted the 61st edition of the Indian National Chess Championship in 2024?

Ans
- ✗ 1. Karnataka
- ✓ 2. Haryana
- ✗ 3. Himachal Pradesh
- ✗ 4. Tamil Nadu

Q.44 People having acidity problems are treated with antacids that contain which of the following?

Ans
- ✗ 1. Lime water
- ✓ 2. Milk of magnesia
- ✗ 3. Hydrochloric acid
- ✗ 4. Quick lime

Q.45 A, B and C invest sum in the ratio 76 : 37 : 52 respectively. If they earned total profit of ₹3850 at the end of year, then what is the difference between share of B and C?

Ans
- ✗ 1. ₹203
- ✗ 2. ₹305
- ✗ 3. ₹360
- ✓ 4. ₹350

Q.46 The age of some students is given in years as 22, 23, 26, 28, 24, 29, 23, 27, 25 and 21. The median age (in years) of the students is:

Ans
- ✓ 1. 24.5
- ✗ 2. 23.5
- ✗ 3. 24
- ✗ 4. 25

Q.47 What are the units of inheritance, which Mendel referred to as 'factors,' now called?

Ans
- ✗ 1. Traits
- ✗ 2. DNA
- ✗ 3. Chromosomes
- ✓ 4. Genes

Q.48 Refer to the given number, symbol series and answer the question that follows.
Counting to be done from left to right only.
(Left) $ 7 & 4 2 & % 4 6 @ 8 Ω 9 # 6 * £ 5 = 2 (Right)
How many such symbols are there each of which is immediately preceded by an odd number and immediately followed by an even number?

Ans
- ✗ 1. Two
- ✗ 2. Four
- ✓ 3. Three
- ✗ 4. One

Q.49 When sodium carbonate (Na_2CO_3) is dissolved in water, the resulting solution becomes:

Ans
- ✗ 1. highly reactive with sodium chloride
- ✗ 2. acidic
- ✓ 3. basic
- ✗ 4. neutral

Q.50	**5 is related to 26 following a certain logic. Following the same logic, 12 is related to 145. To which of the following is 13 related, following the same logic?** **(NOTE: Operations should be performed on the whole numbers, without breaking down the numbers into their constituent digits. E.g. 13 – Operations on 13 such as adding / subtracting /multiplying to 13 can be performed. Breaking down 13 into 1 and 3 and then performing mathematical operations on 1 and 3 is not allowed.)**
Ans	✘ 1. 168
	✘ 2. 162
	✔ 3. 170
	✘ 4. 172

Q.51	**Which of the following statements is correct about equilibrium?**
Ans	✘ 1. Equilibrium is the situation where there is more tendency for change.
	✘ 2. Equilibrium is the situation where there is a tendency for change.
	✘ 3. Equilibrium is the situation where there is less tendency for change.
	✔ 4. Equilibrium is the situation where there is no tendency for any change.

Q.52	**Find the simple interest (in closest integral ₹) on ₹4000 at 5.25% per annum rate of interest for the period from 4 February 2024 to 5 April 2024**
Ans	✘ 1. 36
	✘ 2. 34
	✔ 3. 35
	✘ 4. 33

Q.53	**The current ages of A and B add up to 36 years. Four years ago, the age of A was three times than that of B. What is the current age of A?**
Ans	✔ 1. 25 years
	✘ 2. 20 years
	✘ 3. 30 years
	✘ 4. 35 years

Q.54	**In which year was 'Indian Culture: A Compendium of Indian History, Culture and Heritage' published?**
Ans	✘ 1. 2023
	✘ 2. 2020
	✔ 3. 2021
	✘ 4. 2022

Q.55	**A concave mirror can form a real, inverted and magnified image when the object is placed _____.**
Ans	✘ 1. at the pole
	✘ 2. between the pole and the focus
	✘ 3. beyond the centre of curvature
	✔ 4. between the focus and the centre of curvature

Q.56	**According to Mendel, which trait appeared in F1 progeny on crossing tall pea plants with short pea plants?**
Ans	✔ 1. Tall
	✘ 2. Short
	✘ 3. Dwarf
	✘ 4. Medium

Q.57	A shopkeeper bought an article for ₹740. At what price (in ₹) should he sell the article to make 30% profit?
Ans	✖ 1. 950
	✔ 2. 962
	✖ 3. 518
	✖ 4. 974

Q.58	Which law of refraction states that light bends due to a change in speed when passing from one medium to another?
Ans	✖ 1. Huygens' principle
	✖ 2. Law of reflection
	✖ 3. Fermat's principle
	✔ 4. Snell's law

Q.59	Which of the following metals will displace copper from copper sulfate solution?
Ans	✖ 1. Platinum
	✖ 2. Silver
	✔ 3. Iron
	✖ 4. Gold

Q.60	Refer to the following number and symbol series and answer the question that follows. Counting to be done from left to right only. (Left) 5 # * 7 9 % 2 & 1 > 6 @ 3 ^ 4 $ > 8 (Right) How many such number are there which are immediately preceded by a number and also immediately followed by another number?
Ans	✔ 1. 0
	✖ 2. 1
	✖ 3. 2
	✖ 4. 3

Q.61	Which major Indian port has become the first to operate under a Public-Private Partnership (PPP) model?
Ans	✖ 1. Paradip Port
	✖ 2. New Mangaluru Port
	✖ 3. Mundra Port
	✔ 4. Jawaharlal Nehru Port

Q.62	What was the venue of G20 Agriculture Ministerial Meeting in 2024?
Ans	✔ 1. Cuiaba, Brazil
	✖ 2. Paris, France
	✖ 3. Ottawa, Canada
	✖ 4. Brussels, Belgium

Q.63	If a 3210 m long train crosses a pole in 107 seconds, then find the time (in seconds) taken by the train to cross a 150 m long platform.
Ans	✖ 1. 106
	✖ 2. 114
	✖ 3. 110
	✔ 4. 112

Q.64 What is the resistivity (ρ) of a material?

Ans
✗ 1. The product of voltage and current

✗ 2. The amount of current a material can carry

✗ 3. The same as its resistance

✔ 4. A measure of how strongly a material opposes the flow of electric current

Q.65 Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)

Ans
✗ 1. VS-OI

✗ 2. SP-LF

✔ 3. HF-AU

✗ 4. FC-YS

Q.66 A trader claims to sell flour at a profit of 35%, but also dishonestly uses a weight which is 16% less than what is mentioned on it. Find the total percentage of profit earned by the trader. (Round the answer to the nearest whole number.)

Ans
✗ 1. 56%

✗ 2. 63%

✗ 3. 60%

✔ 4. 61%

Q.67 Solve the following linear equation.

2x − y + z = 8, x + y − z = 10, x + y + 2z = 12

Ans
✗ 1. $x = \dfrac{-1}{3},\ y = 6,\ z = \dfrac{14}{3}$

✗ 2. $x = -6,\ y = \dfrac{-14}{3},\ z = \dfrac{1}{3}$

✗ 3. $x = \dfrac{2}{3},\ y = -6,\ z = \dfrac{14}{3}$

✔ 4. $x = 6,\ y = \dfrac{14}{3},\ z = \dfrac{2}{3}$

Q.68 In Amoeba, the splitting during fission can occur _____.

Ans
✗ 1. only in one specific plane

✔ 2. in any plane

✗ 3. only along a fixed plane

✗ 4. in a definite orientation related to a structure

Q.69 In the month of July in India, at what latitude is the Inter-Tropical Convergence Zone typically situated?

Ans
✗ 1. Near the equator

✗ 2. Between 5°N and 10°N

✔ 3. Around 20°N-25°N

✗ 4. South of the equator

Q.70	If 1 is added to each odd digit and 2 is subtracted from each even digit in the number 7381564, how many digits will appear more than once in the new number thus formed?
Ans	✔ 1. Three
	✘ 2. One
	✘ 3. None
	✘ 4. Two

Q.71	Pankaj starts from Point A and drives 12 km towards east. He then takes a left turn, drives 18 km, turns left and drives 19 km. He then takes a left turn and drives 21 km. He takes a final left turn, drives 7 km and stops at Point P. How far (shortest distance) and towards which direction should he drive in order to reach Point A again? (All turns are 90° turns only unless specified.)
Ans	✘ 1. 1 km to the north
	✔ 2. 3 km to the north
	✘ 3. 4 km to the north
	✘ 4. 5 km to the north

Q.72	Which two numbers should be interchanged to make the following equation correct? 58 + (36× 4)÷ 3 + 6× 8 −12 = 86 (Note: Interchange should be done of the entire number and not individual digits of a given number.)
Ans	✘ 1. 12 and 8
	✔ 2. 36 and 12
	✘ 3. 3 and 6
	✘ 4. 4 and 3

Q.73	A number when increased by 50 %', gives 2880. The number is:
Ans	✘ 1. 3840
	✔ 2. 1920
	✘ 3. 5760
	✘ 4. 960

Q.74	In a certain code language, 'mountains hills rocks' is coded as 'dy ph mt', 'rocks valleys rivers' is coded as 'lp ph st' and 'rivers mountains forests' is coded as 'st bq dy'. (All the codes are two-letter codes only.) What is the code for 'valleys' in that language?
Ans	✘ 1. dy
	✘ 2. st
	✘ 3. ph
	✔ 4. lp

Q.75	Which of the following dynasties did NOT participate in tripartite struggle over Kannauj?
Ans	✘ 1. The Gurjara-Pratiharas
	✔ 2. The Cholas
	✘ 3. The Rashtrakutas
	✘ 4. The Palas

Q.76	Select the letter-cluster from among the given options that can replace the question mark (?) in the following series. GEC BZX WUS RPN ?
Ans	✗ 1. MIK
	✓ 2. MKI
	✗ 3. MJK
	✗ 4. MKJ

Q.77	If at same rate of interest, in 2 years, the simple interest is ₹56 and compound interest is ₹58, then what is the principal (in ₹)?
Ans	✓ 1. 392
	✗ 2. 385
	✗ 3. 396
	✗ 4. 387

Q.78	What should come in place of the question mark (?) in the given series based on the English alphabetical order? GUY ZNR SGK LZD ?
Ans	✗ 1. EWS
	✗ 2. SWE
	✗ 3. SEW
	✓ 4. ESW

Q.79	Based on the English alphabetical order, three of the following four letter-cluster pairs are alike in a certain way and thus form a group. Which letter-cluster pair DOES NOT belong to that group? (Note: The odd one out is not based on the number of consonants/vowels or their position in the letter-cluster.)
Ans	✗ 1. QW – NT
	✗ 2. EK – BH
	✗ 3. GM – DJ
	✓ 4. TY – PU

Q.80	The Citizenship Amendment Act was enacted in 2019 and was operationalised after the rules for it were notified by the Ministry of Home Affairs on _____.
Ans	✗ 1. 11 March 2023
	✗ 2. 11 March 2022
	✗ 3. 11 March 2020
	✓ 4. 11 March 2024

Q.81	What is the general form of a combination reaction?
Ans	✗ 1. A → B + C
	✓ 2. A + B → AB
	✗ 3. AB + CD → AC + BD
	✗ 4. AB → A + B

Q.82	Which city of India organised the World Sustainable Development Summit 2024?
Ans	✗ 1. Jaipur
	✗ 2. Mumbai
	✓ 3. New Delhi
	✗ 4. Hyderabad

Q.83	G, H, I, J, K, L and M live on seven different floors of the same building. The lowermost floor in the building is numbered 1, the floor above it, number 2 and so on, till the topmost floor is numbered 7. H lives on an even numbered floor but not on the second floor. Only three people live between H and M. J lives on one of the floors below H but immediately above M. G lives on one of floors below J. Only three people live between G and K. L lives on one of the floors above J but below I. Who lives on the fifth floor?
Ans	✗ 1. L
	✗ 2. H
	✔ 3. K
	✗ 4. M

Q.84	The sirens of three companies sound together initially and then continue to sound at intervals of 12 minutes, 16 minutes, and 20 minutes, respectively. Over a period of 16 hours and 12 minutes from the time they first sound together, how many times will they sound simultaneously?
Ans	✗ 1. 4 times
	✗ 2. 3 times
	✗ 3. 6 times
	✔ 4. 5 times

Q.85	Which of the following modes of asexual reproduction is used by unicellular organisms exclusively?
Ans	✗ 1. Regeneration
	✔ 2. Binary fission
	✗ 3. Fragmentation
	✗ 4. Sporulation

Q.86	The greatest common divisor (GCD) and least common multiple (LCM) of two numbers are 12 and 480, respectively, and the numbers are in the ratio of 5 : 8. Find the difference between the two numbers.
Ans	✔ 1. 36
	✗ 2. 12
	✗ 3. 24
	✗ 4. 42

Q.87	If 546 apples were distributed among Neeraj, Vidya, and Mohan in the ratio $\frac{1}{6}:\frac{1}{2}:\frac{1}{3}$, how many apples did the Mohan get?
Ans	✗ 1. 202
	✗ 2. 192
	✗ 3. 172
	✔ 4. 182

Q.88	If the average of 9 numbers is 17 and one number is removed, the average of the remaining 8 numbers becomes 15. What is the value of the removed number?
Ans	✗ 1. 39
	✔ 2. 33
	✗ 3. 37
	✗ 4. 35

Q.89	Why is variation in plants important for their survival and evolution?
Ans	✗ 1. It ensures that all plants produce identical offspring.
	✗ 2. It helps plants to grow taller and stronger.
	✔ 3. It allows plants to adapt to changing environmental conditions.
	✗ 4. It reduces competition among plants.

Q.90	Consider a pencil dipped in water in a glass beaker. If the water is replaced by kerosene or turpentine, will the pencil appear displaced to the same extent?
Ans	✗ 1. Yes, the displacement will be the same.
	✗ 2. Yes, it will be more displaced than in water.
	✗ 3. No, the displacement will vary.
	✓ 4. No, the pencil will appear straight.

Q.91	Why is asexual reproduction advantageous for single-celled organisms?
Ans	✗ 1. It requires a mate.
	✗ 2. It increases genetic variability.
	✓ 3. It allows rapid reproduction in favourable conditions.
	✗ 4. It prevents overcrowding.

Q.92	Which among the following organisms reproduce by regeneration method?
Ans	✗ 1. Bryophyllum
	✗ 2. Rhizopus
	✓ 3. Planaria
	✗ 4. Yeast

Q.93	The average price of three items of furniture is Rs 16830. If their prices are in the ratio 3:5:7, the price of the cheapest item (in Rs) is
Ans	✗ 1. 7854
	✗ 2. 5610
	✗ 3. 3366
	✓ 4. 10098

Q.94	The magnetic field inside a solenoid:
Ans	✓ 1. is the same at all points
	✗ 2. is zero at the centre
	✗ 3. varies with distance from the edge
	✗ 4. is maximum at the centre and minimum at the edge

Q.95	What should come in place of the question mark (?) in the given series? 29 38 51 68 89 ?
Ans	✗ 1. 115
	✗ 2. 116
	✓ 3. 114
	✗ 4. 113

Q.96	In $\triangle$ ABC, $DE \parallel AC$, where D and E are the points on sides AB and BC, respectively. If BD = 8 cm and AD = 7 cm, then what is the ratio of the area of $\triangle$ BDE to the trapezium ADEC?
Ans	✗ 1. 161:64
	✗ 2. 65:162
	✓ 3. 64:161
	✗ 4. 162:65

Q.97	Which of the following letter-clusters should replace # and % so that the pattern and relationship followed between the letter-cluster pair on the left side of :: is the same as that on the right side of :: ? **# : NJR :: OKS : %**
Ans	✗ 1. # = LHP, % = QMV
	✗ 2. # = LHO, % = QMU
	✗ 3. # = LHP, % = QNU
	✔ 4. # = LHP, % = QMU

Q.98	Why do stars appear to twinkle when viewed from the Earth?
Ans	✔ 1. Refraction in the Earth's atmosphere
	✗ 2. Diffraction by clouds
	✗ 3. Reflection in the atmosphere
	✗ 4. Scattering by particles

Q.99	The total surface area of a solid hemisphere is 191 cm^2. Its radius (in cm) is: $Take\ \pi = \dfrac{22}{7}$
Ans	✗ 1. $\sqrt{\dfrac{1347}{66}}$
	✗ 2. $\sqrt{\dfrac{1347}{132}}$
	✔ 3. $\sqrt{\dfrac{1337}{66}}$
	✗ 4. $\sqrt{\dfrac{1345}{66}}$

Q.100	What should come in place of the question mark (?) in the given series? **4 24 120 480 ? 2880**
Ans	✔ 1. 1440
	✗ 2. 1080
	✗ 3. 1220
	✗ 4. 1360