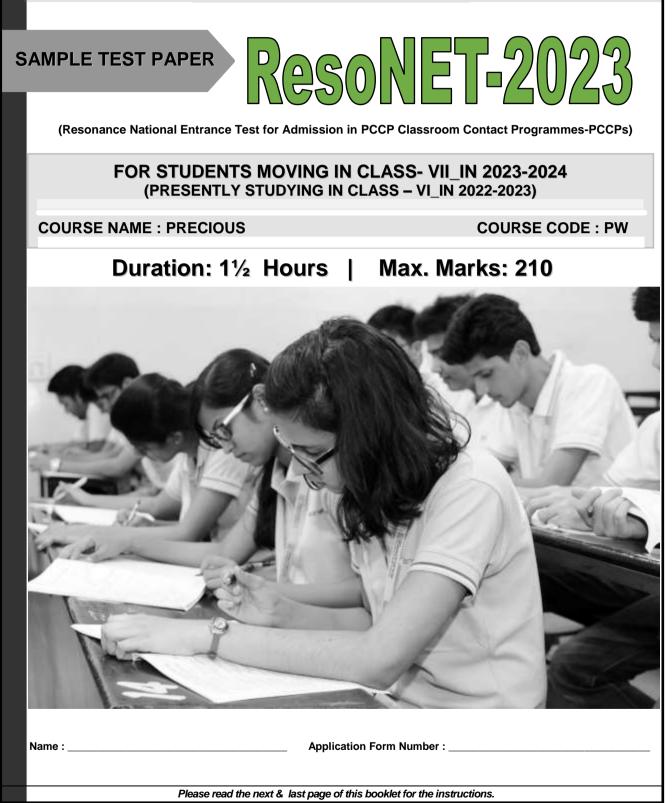


Academic Session: 2023-24



# **Resonance Eduventures Limited**

### IMPORTANT INSTRUCTIONS

#### **GENERAL INSTRUCTIONS**

- 1. This booklet is your Question Paper.
- 2. Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form are not allowed to be used.
- 3. Write your Name & Application Form Number in the space provided in the first page of this booklet.
- 4. No rough sheets will be provided by the invigilators. All the rough work is to be done in the blank space provided in the question paper.
- 5. No query related to question paper of any type is to be put to the invigilator.

#### **INSTRUCTIONS FOR OPTICAL RESPONSE SHEET (ORS)**

- $\succ$  Darken the appropriate bubbles on the original by applying sufficient pressure.
- > The original is machine-gradable and will be collected by the invigilator at the end of the examination.
- > Do not tamper with or mutilate the ORS.
- Write your name, Application form number and the name of the examination centre and sign with pen in the space provided for this purpose on the original. Do not write any of these details anywhere else. Darken the appropriate bubble under each digit of your roll number.
- > Before answering the paper, fill up the required details in the blank space provided in the Objective Response Sheet (ORS).
- Do not forget to mention your paper code and Application Form Number neatly and clearly in the blank space provided in the Objective Response Sheet (ORS) / Answer Sheet.
- > Use a **BLACK BALL POINT** to darken the bubbles in the upper sheet.
- > Darken the bubble **COMPLETELY**.
- > Darken the bubble **ONLY** if you are sure of the answer.
- > The correct way of darkening a bubble is as shown here :
- > There is **NO** way to erase or "un-darkened bubble.
- The marking scheme given at the beginning of each section gives details of how darkened and not darkened bubbles are evaluated.

Marks distribution of questions is as follows.

### Reso NET 2023-24

			Marks to be awarded					
S.No.	Subject	Nature of Questions	No. of Questions	Correct	Wrong	Total		
1 to 25	PART-I (Maths)	Single Choice Questions (SCQ)	25	3	0	75		
26 to 35	PART-II (Physics)	Single Choice Questions (SCQ)	10	3	0	30		
36 to 45	PART-III (Chemistry)	Single Choice Questions (SCQ)	10	3	0	30		
46 to 55	PART-IV (Biology)	Single Choice Questions (SCQ)	10	3	0	30		
56 to 70	PART-V (Mental Ability)	Single Choice Questions (SCQ)	15	3	0	45		
		Total	70			210		

Zero marks '0' If none of the options is chosen (i.e. the question is unanswered).



### **MATHEMATICS** :

*	Knowing our number	*	Whole Number					
*	Playing with numbers	*	Integers					
*	Fraction	*	Decimal					
*	Introduction to algebra							
DHV	SICS :							
		•						
*	Motion and measurement of distances	*	Force, Work, Energy					
*	Simple Machine							
CUE								
CHE	MISTRY :							
*	Matter & Its segregation	*	Materials of daily uses clothes					
*	Classification & diversity in matter							
BIOL	.OGY :							
*	Getting to know plants	*	Food					
*	Living organisms & surroundings							
MENTAL ABILITY :								
*	Number series	*	Alphabet series					
*	Missing term in figures	*	Alphabettest					
*	Coding-decoding	*	Direction sense test					
*	Seating arrangement	*	Mathematical operations					



1.	Roman numerals for 498 is:									
	(A) CDCXVIII	(B) CDCXIV								
	(C) CDXCVIII	(D) CDXCVII								
2.	According to International System, the number									
	648340021 would be written with commas									
	(A) 648,340,021	(B) 6,4,8,3,0,0,2,1								
	(C) 64,83,40,02,1	(D) none								
3.	In the product of 37 a	nd 23, what is the place								

- In the product of 37 and 23, what is the place value of the digit which is prime ?
  (A) 500
  (B) 700
  (C) 800
  (D) 50
- Using the digits 1, 4, 6 and 8 each only once, how many four digit odd numbers can be formed?
  (A) 4
  (B) 5
  (C) 3
  (D) 6
- 3 x 1000 + 5 x 10 + 2 x 1 Given in the expanded Form. The number is
  (A) 0352.
  (B) 3002.
  (C) 3052.
  (D) 3573.
- 6. The product of two odd numbers is
  (A) an even number
  (B) an odd number
  (C) Either even or odd
  (D) Multiple of 7 or 2
- The difference between the largest 5-digit number with distinct digits and the smallest 5-digit number with distinct digits is

   (A) 88,531
   (B) 89,999.
   (C) 86,420
   (D) 119,999.
- 8. 38 + 83 = 83 + 38 is an example of

  (A) commutative property.
  (B) associative property.
  (C) closure property.
  (D) distributive property.

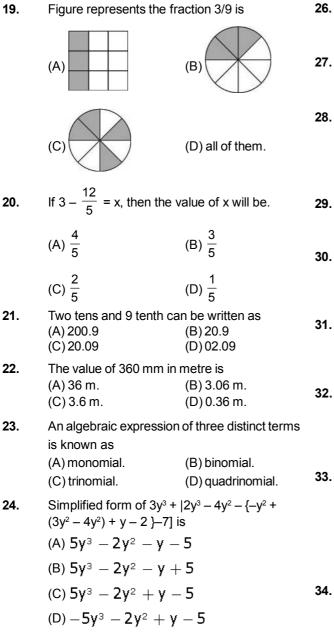
  9. The multiplicative identity element of whole numbers is

  (A) 2
  (B) 1
  - (A) 2 (B) 1 (C) 0 (D) -1
- 10. The number divisible by 11 is (B) 1,802,701. (A) 1,116,365. (C) 8,790,322. (D) 901,351. 11. The smallest number of 4- digits exactly divisible by 12,15, 20 and 35 is (A) 1000 (B) 1160 (C) 1260 (D) 1360 12. The number which is neither prime nor composite is (A) 4 (B) 1 (C)2 (D)5 13. All the factors of 25 are (A) 1, 5, 25 (B) 1, 5, 15 (C) 1, 5, 20 (D) 1, 2, 4 14. The number that is equal to its additive inverse is (A)-1 (B)0 (C)+1 (D) 100 15. The correct sequence of the numbers in ascending order is \_ (A) 0 < −1 < −2 (B) 1 < -1 < 0 (C) -1 < 0 < 1 (D) -2 < -3 < -416. Find. (-7) - 8 - (-20)(A) - 5(B) + 25 (C) + 5 (D) - 817. On moving 8 steps to the right of -5, Rita will get (B) +5 (A) +3 (C)+8 (D) +13 18. Which of the following is correct definition of Like Fractions? (A) Fractions which do not have the same denominator (B) Fractions which have the same denominator (C) Fractions which have the same numerator (D) Fractions which do not have the same numerator

(Space For Rough Work)



19.	Figure represents the fraction 3/9 is
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- 3 times x added to 7 times y gives 25. (A) 3x + 7y (B) 3x - 7y (C) 7y - 3x(D) 3x/7y
- (A) Time (B) Length (C) Mass (D) Weight 27. 1 dam is equal to : (A) 10m (B) 1000 cm (C) Both (A) and (B) (D) None of these Length of curved line is measured by using : 28. (A) Scale (B) String (C) Ruler (D) Can't be measured 29. Lifting a bucket of water is an example of : (A) Frictional force. (B) Muscular force. (C) Gravitational force. (D) Magnetic force. 30. To pick out iron pieces from garbage, the garbage pickers often use the : (A) Muscular force. (B) Magnetic force. (C) Frictional force. (D) Electrostatic force. 31. Choose the source of energy which is different from others : (A) Gobar gas (B) Vegetable refuse (C) Plants (D) Crude oil 32. A machine can (A) Divide force (B) Decrease speed (C) Change the direction of the force applied (D) All of these 33. A first order lever always has ..... in the middle. (A) fulcrum (B) effort force (C) resistance force (D) mechanical advantage 34. Which is an example of lever of first order? (A) Scissor (B) See-saw (C) Pliers (D) All of these Which is an example of lever of third order ? 35. (B) See-saw (A) Scissor (D) Sugar tongs (C) Claw hammer

Foot, Stride, Fathom are the units of :

(Space For Rough Work)



36.	Two examples of animal (A) cotton and wool. (C) silk and jute.	fibres are (B) cotton and flax. (D) wool and silk.	46.	Rat is (A) carnivorous. (C) omnivorous.	(B) herbivorous. (D) insectivorous.		
37.	The instrument that me liquids is (A) hydrometer. (C) density meter.	asures the density of (B) hygrometer. (D) ammeter	47.	An animal that eats fruit (A) cat. (C) eagle.	of trees is (B) monkey. (D) snake.		
38.	Pure water is (A) good conductor of el (B) poor conductor of el	ectricity.	48.	All of the given are milk (A) cream. (C) chapati.	(B) cheese. (D) ghee.		
	(C) semiconductor. (D) superconductor	·	49.	All of the given can feed (A) crocodile. (C) lizard.	on insects except (B) frog. (D) snake.		
39.	The following groups of can be classified as man (A) aerated drinks, ice c (B) milk, biscuits and bro	n-made is ream and pizza.	50.	An edible root is (A) ginger. (C) carrot.	(B) potato. (D) onion.		
	(C) Mango, orange and t (D) tomato, sandwich ar	nd chocolate	51.	Conduction of water is the function of: (A) leaf. (B) stem.			
40.	The object which is mac is (A) sweaters. (C) mattresses.	le from coconut fibers (B) brushes. (D) clothes.	52.	<ul><li>(C) root.</li><li>(D) flower.</li><li>On a hot summer day, the leaves of a plant droop down because</li><li>(A) the plant becomes weak.</li></ul>			
41.	The best conductor of e (A) zinc. (C) copper.	lectricity is (B) silver. (D) gold.		<ul><li>(B) excessive transpiration takes place.</li><li>(C) excessive photosynthesis takes place.</li><li>(D) no transpiration occurs.</li></ul>			
42.	Pebbles and stones are by (A) hand picking. (C) threshing.	removed from sand (B) winnowing. (D) sieving.	53.	When the venation appedesign on both sides of (A) parallel venation. (C) reticulate venation.			
43.	Sugar is obtained from s (A) magnetic separation (C) evaporation.	sugar solution by	54.	Femal e reproductive pa (A) Stamen (C) Flower	rt of Plant - (B) Pistil (D) None of these		
44.	Filtration is used for sep (A) salt from sea water. (B) vegetables from sour (C) cream from milk.	-	55.	Transpiration occurs mainly through the (A) roots.(B) stem.(C) bud.(D) leaves			
	(D) iron nails from sand		Directi	g number :			
45.	The part of the cotton pl boll is (A) leaf. (C) seed.	ant that yields cotton (B) fruit. (D) stem.	56.	1, 3, 7, 13, ? (A) 19 (C) 21	(B) 23 (D) 25		

(Space For Rough Work)



Direction: (57 to 58) Find the wrong term (s):

57. 2, 6, 11, 17, 23, 32, 41

(A) 6
(B) 17
(C) 23
(D) 32

58. CDF, DEG, EFH, FHI

(A) CDF
(B) DEG

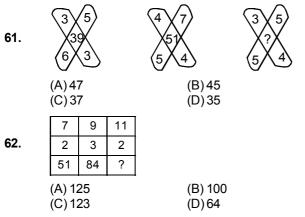
(C) FHI

59. If the following names are arranged alphabetically, which of them will occupy the third position ?
(A) Surendra
(B) Sindhu
(C) Shurendra
(D) Sadhana

(D) EFH

60. If BOX is coded as CDPQYZ, what will be the last two letters of word in the same code for HERO?
(A) N, M
(B) M, N
(C) P, Q
(D) Q, P

Direction (61 to 62) Find the missing terms in the figure.



Directions : (63) Arrange the following group such that when arranged in a specific order, meaningful word is formed.
63. T R I F U

(B) 4, 2, 5, 3, 1
(D) 5, 3, 2, 1, 4

- 64. If air is called water, water is called green, green is called dust, dust is called yellow and yellow is called cloud, which of the following does fish live in ?
- (A) Air (B) Water (C) Green (D) Dust 65. If KLM is written 18 then how would SQR be written in that code ? (A) 30 (B) 54 (C) 26 (D) 27 Reena walks Eastwards after a while she turns 66. to her left and then turn to her right. Finally she turn to her left. In which direction is she moving now? (A) West (B) East
- 67. Rahul travels 8 km East, then 6 km north, How far is Amar from the starting point ?
  (A) 16 kms.
  (B) 10 kms.
  (C) 6 kms.
  (D) 5 kms.

(D) North

- **Directions : (68 to 69)** Read the following information carefully and answer the questions given below it :
  - (A) There are five friends.

(C) South

- (B) They are standing in a row facing South.
- (C) J is to the immediate right of A.
- (D) P is between B and S.
- (E) S is between J and P.

68. Who is at the extreme left end ?

(A) A
(B) B
(C) S
(D) Data inadequate

69. Who is in the middle ?

(A) B
(B) J
(C) P
(D) S

**70.** What is the value of 10 × 10 ÷ 10 = ? (A) 10 (B) 1000 (C) 10000 (D) None of these

## **ANSWER KEY**

Ques.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ans.	С	А	D	D	С	В	А	Α	В	D	С	В	Α	В	С
Ques.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Ans.	С	Α	В	Α	В	В	D	С	Α	Α	В	С	В	В	В
Ques.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Ans.	D	С	Α	D	D	D	Α	В	Α	С	В	D	С	В	В
Ques.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Ans.	С	В	С	Α	С	В	В	С	В	D	С	С	С	В	С
Ques.	61	62	63	64	65	66	67	68	69	70					
Ans.	С	С	В	С	D	D	В	Α	D	Α					

