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Reso-FAST SAMPLE TEST PAPER

FOR STUDENTS MOVING IN CLASS-VIII IN 2019-20

(PRESENTLY STUDYING IN CLASS-VII IN 2018-19)

Time : 1½ Hr. **Max. Marks : 210**

GENERAL INSTRUCTIONS

1. **Question paper contains 70 questions of Mathematics (1 to 25), Physics (26 to 35), Chemistry (36 to 45), Biology (46 to 55) & Mental Ability (56 to 70), each question carry 3 mark.**
2. **Blank papers, clip boards, log tables, slide rule, calculators, mobile or any other electronic gadgets in any form is not allowed.**
3. **Write your Name and Roll No. in the space provided in the bottom of this booklet.**
4. **Before answering the paper, fill up the required details in the blank space provided in the answer sheet.**
5. **Do not forget to mention your roll number neatly and clearly in the blank space provided in the answer sheet.**
6. **There is no negative marks for wrong answer.**
7. **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.**
8. **In case of any dispute, the answer filled in the OMR sheet available with the institute shall be final.**

MARKING CRITERIA

No. of Questions	Type	Marks		
		Correct	Incorrect	Blank
1–70	Only one correct	Q. No. 1 to 70 (3 Mark each)	NO NEGATIVE MARKS	0

IMPORTANT

PROCEDURE OF FILLING UP THE ANSWERS IN OMR SHEET

Wrong Filling		Right Filling	
Ⓐ ✓ Ⓒ Ⓓ	Tick mark	Ⓐ ● Ⓒ Ⓓ	Fully darken with HB Pencil
Ⓐ ✗ Ⓒ Ⓓ	Cross mark	Ⓐ ● Ⓒ Ⓓ	Fully darken with HB Pencil
Ⓐ ◐ Ⓒ Ⓓ	Half filled or semi dark	Ⓐ ● Ⓒ Ⓓ	Fully darken with HB Pencil
○ Ⓑ Ⓒ Ⓓ	Light filled	● Ⓑ Ⓒ Ⓓ	Fully darken with HB Pencil

Name : _____ **Roll No. :** _____

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Website : www.pccp.resonance.ac.in **E-mail :** pccp@resonance.ac.in

Syllabus of class-VII_ Reso FAST

MATHEMATICS :

- Integer
- Rational numbers
- Triangle
- Exponent
- Fraction & decimal
- Lines and angles
- Congruency of triangle
- Algebraic expressions

PHYSICS :

- Measurement
- Heat
- Motion & time
- Sound

CHEMISTRY :

- General chemistry
- Acids, bases & salts
- Fibre to fabric

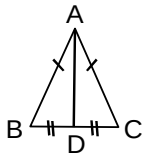
BIOLOGY :

- Nutrition in plant
- Weather climate and adaptation
- Transportation
- Nutrition in animals
- Respiration

MENTAL ABILITY :

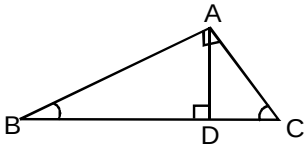
- Number series
- Letter repeating series:
- Alphabet Ttest:
- Direction sense test
- Mathematical operations
- Alphabet series
- Missing term in figure
- Codiing-decoding
- Ranking ordering test

1. In the given ΔABC if AB = AC and BD = DC, then $\angle ADC$ =



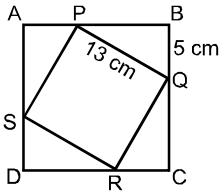
(A) 60° (B) 120°
(C) 90° (D) 45°

2. In ΔABC, $AB \perp AC$ and $AD \perp BC$. If $\angle BAD = 50°$, then $\angle ACD$ is



(A) 40° (B) 50°
(C) 140° (D) 60°

3. In the given figure ABCD is a square in which points P, Q, R, S are situated in such a way that PQRS is also a square of side 13 cm. If BQ = 5 cm., then the area of square ABCD is :



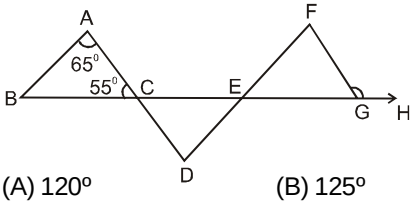
(A) 289 cm^2

(B) 324 cm^2

(C) 361 cm^2

(D) 400 cm^2

4. In given figure if AB || DF, AD || FG, $\angle BAC = 65^o$, $\angle ACB = 55^o$, then $\angle FGH$ is :

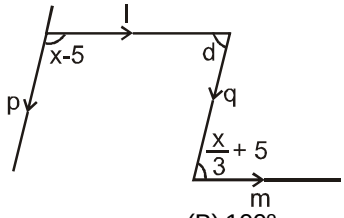


(A) 120º (B) 125º
(C) 115º (D) 140º

5. The measure of that angle which is four times its supplement is :

(A) 36º (B) 144º
(C) 155º (D) 180º

6. In the given figure lines p and q are parallel. Find value of x so that lines l and m be parallel.



(A) 45º (B) 100º
(C) 135º (D) 60º

7. The value of
(–5) + (– 4) – (– 4) – (– 5) + (– 5) + (– 4) – (– 5) + (–4) is

(A) – 4 (B) – 5
(C) 0 (D) –8

8. Simplify $222 - \left[\frac{1}{3}\left\{42 + \left(56 - \overline{8+9}\right)\right\} + 108\right]$

(A) 87 (B) 100
(C) 89 (D) 90

9. For integers :
(A) Addition is associative
(B) Addition is commutative
(C) Integer "0" is the identity under addition
(D) All of the above

10. Find the value. $4\frac{5}{6} - 2\frac{3}{8} + 3\frac{7}{12}$

(A) $\frac{145}{24}$ (B) $\frac{145}{12}$

(C) $\frac{92}{21}$ (D) $\frac{145}{4}$

(Space For Rough Work)

11. Descending order of fractions , $\frac{1}{5}$, $\frac{3}{7}$, $\frac{7}{10}$, $\frac{13}{28}$.

(A) $\frac{13}{28} > \frac{7}{10} > \frac{3}{7} > \frac{1}{5}$

(B) $\frac{13}{8} < \frac{7}{10} < \frac{3}{7} < \frac{1}{5}$

(C) $\frac{7}{10} > \frac{13}{28} > \frac{3}{7} > \frac{1}{5}$

(D) None of these

12. If x = 2, then find the value of $x + \frac{2}{1-\frac{1}{1-\frac{1}{x}}}$

(A) -3 (B) $\frac{3}{4}$

(C) $\frac{4}{3}$ (D) 0

13. If $\frac{-9}{5} = \frac{a}{20} = \frac{27}{b} = \frac{-45}{c}$, then values of a, band care

(A) – 15, 25 , – 36 (B) – 36 –15, 25
(C) 25, – 36, –15 (D) –15, – 36,25

14. The number of rational numbers between two numbers is
(A) zero. (B) one.
(C) two. (D) infinite.

15. A tin of oil was $\frac{4}{5}$ full. When six bottle of oil were taken out and four bottles of oil were poured in, it was $\frac{3}{4}$ full. How many bottles of oil did the tin contain initially ?
(A) 16 (B) 40
(C) 32 (D) None of these

16. A single discount equivalent to a single discount series of 25%, 20%, 10% is
(A) 46 (B) 55
(C) 54 (D) 45

17. The selling price of a table is more than its cost price by 25%. Then the cost price is less than selling price by :
(A) 20% (B) 75%
(C) 80% (D) 25%

18. The C.P of 21 articles is equal to S.P. of 18 articles. Find the gain or loss percent.

(A) $16\frac{1}{3}\%$ (B) $16\frac{2}{3}\%$

(C) 16 %
(D) None of these

19. The ratio of the number of boys and girls in a school is 3 : 2. If 20% of the boys and 30% of the girls are scholarship holders, the percentage of the students who are not scholarship holders is :
(A) 50% (B) 72%
(C) 75% (D) 76%

20. The ratio of radii of two cylinders is $1 : \sqrt{3}$ and heights are in the ratio 2 : 3. The ratio of their volume is.
(A) 1 : 9 (B) 2 : 9
(C) 4 : 9 (D) 5 : 9

21. If $\sqrt{1+\frac{27}{169}} = 1 + \frac{x}{13}$, then x =
(A) 1 (B) 14
(C) Cannot be determined (D) None

22. If x = 5 and y = x + 7 then, value of $\sqrt{x^2+y^2}$ =
(A) 65 (B) 26
(C) 17 (D) 13

(Space For Rough Work)

23. The factors of $x^4 + 4$ are
(A) $(x^2+2)(x^2+2)$
(B) $(x^2+2)(x^2-2)$
(C) $(x^2-2x+2)(x^2+2x+2)$
(D) Does not exist

24. The compound interest on Rs. 5000 at 4 % per annum for 2 years compounded annually is :
(A) Rs 804 (B) Rs 708
(C) Rs 408 (D) Rs 5408

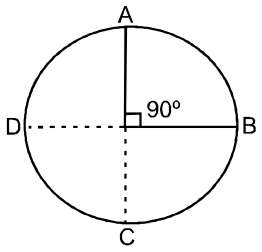
25. In case of compound interest the principal :
(A) Increases every year
(B) Decreases every year
(C) Remains constant throughout the loan period
(D) Increases for first year and then decreases

26. The full form of MKS is :
(A) Metre, kilogram, second.
(B) Mole, kilogram, second.
(C) Mole, kelvin, second.
(D) Metre, kilobyte, second.

27. Oscillatory motion is also known as :
(A) Rectilinear motion.
(B) Circular motion.
(C) Nonuniform motion.
(D) Periodic motion.

28. An object undergoes an acceleration of 10 m/s^2 starting from rest, find velocity after 5 seconds:
(A) 100 m/s (B) 125 m/s
(C) 50 m/s (D) 150 m/s

29. In the given figure find displacement between A and B of circular path of radius 2 metre :



(A) $\sqrt{8}$ (B) $\sqrt{3}$
(C) $\sqrt{4}$ (D) $\sqrt{5}$

30. Name the mode of heat transfer in which the particles actually move to the source of heat :
(A) Conduction (B) Convection
(C) Radiation (D) None of these

31. When the temperature of a substance is increased :
(A) Kinetic energy of the molecules of the substance increases.
(B) Kinetic energy of the molecules of the substance decreases.
(C) The amplitude of vibrations of molecules of the substance about their mean position decreases.
(D) Kinetic energy of the molecules of the substance remains same.

32. The use of sound waves to determine distance or find objects is called :
(A) Ultrasound (B) Infrasound
(C) Acoustics (D) None of these

33. Velocity of sound in fresh water is :
(A) More than that in sea water
(B) Less than that in air
(C) Less than that in sea water
(D) More than that in alcohol

34. The noise becomes painful above
(A) 80dB. (B) 70dB.
(C) 60dB. (D) 50dB.

35. SONAR is used to detect objects in sea beds by the phenomenon of
(A) vibrations. (B) waves.
(C) echo. (D) light.

36. Atomic number of an element represents -
(A) number of neutrons in the nucleus.
(B) atomic mass of an element.
(C) valency of an element
(D) number of protons in the nucleus.

37. The substance that shows different colours in acidic and basic solutions is
(A) indicators. (B) lacto metre
(C) lux metre. (D) ammetre

(Space For Rough Work)

38. Silk is obtained from
(A) banana tree.
(B) jute stem.
(C) silk worm.
(D) mango tree

39. The difference between ions and atoms is of -
(A) relative size
(B) electronic configuration
(C) presence of charge
(D) all of these

40. Which fibres are used to make clothes ?
(A) Natural (B) Synthetic
(C) Both (D) None of these

41. A protein substance, which is the chief component of wool fibres, is
(A) elastin. (B) keratin.
(C) collagen. (D) casein.

42. The wool which breaks during the combing process in manufacturing is a
(A) virgin wool. (B) worst wool.
(C) tender wool. (D) merino wool

43. Which of the following is not an indicator ?
(A) Methyl orange (B) Litmus
(C) China rose (D) Sunflower

44. The strongest variety of silk is
(A) mulberry silk.
(B) mooga silk.
(C) tasar silk.
(D) oak tasar silk

45. When a drop of phenolphthalein is introduced in lime water, the solution turns.
(A) Blue (B) Red
(C) Milky (D) Pink

46. Photosynthesis is a
(A) physical process.
(B) chemical process.
(C) manmade process.
(D) None of these

47. Lactic acid is formed in
(A) Muscles (B) Bacteria
(C) Yeast (D) None of these

48. Humans develop
(A) two sets of teeth during their lifetime.
(B) one set of teeth which lasts for a lifetime.
(C) a total of twenty four teeth.
(D) a total of sixteen teeth.

49. Food moves in the alimentary canal from one region to another by a process called
(A) locomotion. (B) pumping.
(C) peristalsis. (D) diastole.

50. Most of the photosynthesis (80%) which takes place on this earth is carried on by
(A) green plants on land
(B) algae present in fresh water
(C) algae found in ocean
(D) algae present in ocean and fresh water sources

51. Weather at a place is the day to day condition of atmosphere with respect to
(A) wind, humidity, rainfall and temperature.
(B) sun, daylength, moisture and heat.
(C) rainfall, temperature, sunlight and moonlight.
(D) sunlight, moonlight, wind and temperature.

52. On an average, at rest an adult human being breathes
(A) 5-10 times in a minute.
(B) 10-13 times in a minute.
(C) 15-18 times in a minute.
(D) 22-25 times in a minute.

53. Valves that direct the flow of blood only in one direction are present in
(A) arteries.
(B) veins.
(C) capillaries.
(D) arteries, veins and capillaries.

54. From which of the four chambers of ruminant stomach, semi-digested food is moved back to mouth ?
(A) Rumen (B) Abomasum
(C) Omasum (D) All of these

(Space For Rough Work)

55. In plants, gas exchange takes place through
(A) wood. (B) stomata.
(C) root. (D) fruit.

Directions (56 to 68) : Find the missing numbers :

56. 16, 19, 22, 25, ?
(A) 27 (B) 28
(C) 29 (D) 25

57. 2, 5, 10, 17, ?
(A) 25 (B) 26
(C) 22 (D) 24

58. 8, 11, 15, 22, 33, 51, ?, 127, 203
(A) 80 (B) 53
(C) 58 (D) 69

59. If the following words are arranged as found in the dictionary, then what will be the fourth letter from the left in the last word ?
INTIMATION , INFORMATION , INTEREST, INTERROGATION , INSTIGATION
(A) R (B) O
(C) T (D) I

60. Which letter is midway between 22nd letter from the left and 21st letter from the right ?
(A) L (B) M
(C) O (D) None of these

61. Arrange the following group such that when arranged in a specific order, meaningful word is formed.

R	**T**	**A**	**O**	**U**	**H**
1	**2**	**3**	**4**	**5**	**6**

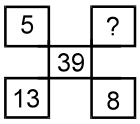
(A) 1, 3, 4, 5, 6, 2 (B) 2, 3, 6, 4, 5, 1
(C) 6, 3, 2, 4, 5, 1 (D) 3, 5, 2, 6, 4, 1

62. Find which one word can be made from the letters of the given word.
MEASUREMENT
(A) MASTER (B) MANTLE
(C) SUMMIT (D) ASSURE

63.

(A) 96 (B) 81
(C) 100 (D) 169

64.



(A) 40 (B) 52
(C) 65 (D) 75

65. If **PINK** is written as **N G L I** how will **IRON** be written ?
(A) G P M L (B) K M P L
(C) G M P L (D) K P M L

66. If in any code language **NATIONAL** is written as **MZGRLMZO** than how is **JAIPUR** written in that language
(A) QRZKFI (B) QZRKFI
(C) QZRFKI (D) QZRIFK

67. If **light** is called **dark**, **dark** is called **green**, **green** is called **blue**, **blue** is called **red**, **red** is called **white** and **white** is called **yellow**, what is the colour of blood ?
(A) Red (B) Dark
(C) White (D) Yellow

68. At my house I am facing West, then I turn left and go 10 m, then I turn 90º anticlockwise and go 5 m, and then I go 5 m to the South and from there 5 m to the West. In which direction am I from my house ?
(A) East (B) West
(C) North (D) South

(Space For Rough Work)

69. How many triangles are there in the figure below?

(A) 5 (B) 6
(C) 8 (D) 10

70. Pointing to a girl in the photograph, Amar said, "Her mother's brother is the only son of my mother's father." How is the girl's mother related to Amar ?
(A) Mother (B) Sister
(C) Aunt (D) Grandmother

ANSWER KEY

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

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Classroom student since class-VIII
Study Center: Kota | Hometown: Jaipur

IESO Final Stage RESULT: 2017-18

VAIBHAV KHATER
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Study Center: Raipur | Hometown: Raipur

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AIR-1
Maharashtra State Topper
Siddhant Mukherjee
Roll No. 17437554
Hometown: Mumbai

5 STATE TOPPERS
(Maharashtra, Gujarat, Rajasthan, Odisha & Bihar)

Total Selections: 48 (Classroom: 42 | DLPD: 06) | **11 Ranks in Top-50** (1, 3, 6, 12, 13, 18, 21, 23, 29, 44, 44)

IJSO (Stage)-2
INJSO RESULT-2018

9 Students
selected Out of Total 35 for OCSC

25.71%
Selection share

NTSE (Stage-2) RESULT: 2017

171
Total Selections
51.53 % Growth in Result from last year

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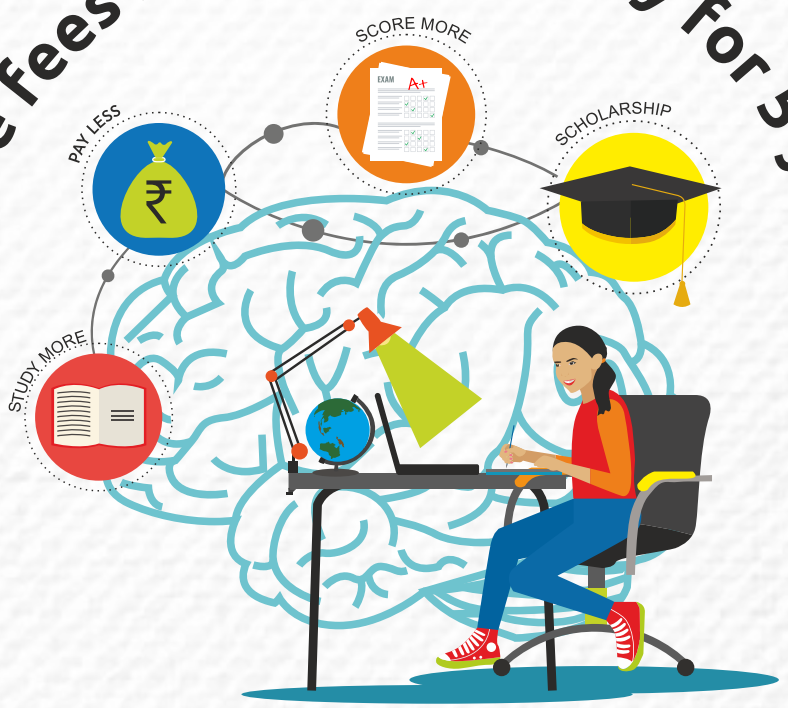

For Classes VIII, IX & X

Test Dates: 14 Oct & 25 Nov 2018

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SCHEDULE

Stage-1: 24 Dec to **30** Dec 2018
31 Dec to **06** Jan 2019
Stage-2 & **Board: 24** Dec to **06** Jan 2019

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