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PRINCE SAINIK SCHOOL

ADMISSION TEST - 2021

Date : 21 March, 2021 (Sunday)

Time : 10:00 AM to 12:00 Noon

1. Which of the following is (are) greater than x when $x = \frac{9}{11}$?
 (i) $\frac{1}{x}$ (ii) $\frac{x+1}{x}$ (iii) $\frac{x+1}{x-1}$
 (a) (i) only (b) (i) and (ii) only
 (c) (i) and (iii) only (d) (ii) and (iii) only

2. Arrange the following fractions in ascending order $\frac{3}{7}, \frac{4}{5}, \frac{7}{9}, \frac{1}{2}$.
 (a) $\frac{4}{5}, \frac{7}{9}, \frac{3}{7}, \frac{1}{2}$ (b) $\frac{3}{7}, \frac{1}{2}, \frac{7}{9}, \frac{4}{5}$
 (c) $\frac{4}{5}, \frac{7}{9}, \frac{1}{2}, \frac{3}{7}$ (d) $\frac{1}{2}, \frac{3}{7}, \frac{7}{9}, \frac{4}{5}$

3. Evaluate: $\sqrt{41 - \sqrt{21 + \sqrt{19 - \sqrt{9}}}}$
 (a) 3 (b) 6
 (c) 5 (d) 6.4

4. Simplify: $\left(\sqrt{\frac{225}{729}} - \sqrt{\frac{25}{144}} \right) \div \sqrt{\frac{16}{81}}$
 (a) $\frac{1}{48}$ (b) $\frac{5}{48}$
 (c) $\frac{5}{16}$ (d) None of these

5. $\frac{10 + \sqrt[3]{8}}{98.4 + \sqrt{2.56}}$ is equal to
 (a) 0.12 (b) 0.2
 (c) 2 (d) None of these

6. Find the value of $\sqrt[3]{\sqrt{0.00064}}$
 (a) 0.02 (b) 0.2
 (c) 2 (d) None of these

7. What is the value of x in the given equation

$$\frac{(3x+1)}{16} + \frac{(2x-3)}{7} = \frac{(x+3)}{8} + \frac{(3x-1)}{14}$$

 (a) 2 (b) 4
 (c) 3 (d) 5

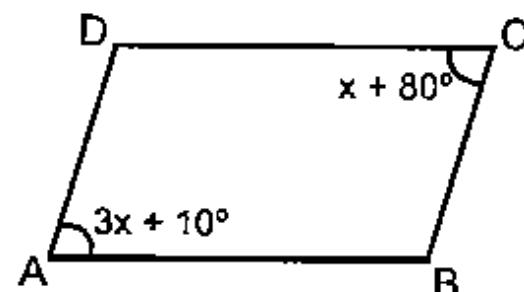
8. Of the three numbers, the first is twice the second and is half the third. If the average of three number is 56, the three numbers in order are
 (a) 48, 24, 96 (b) 48, 36, 96
 (c) 48, 12, 14 (d) 24, 12, 48

9. Solve for x : $x - \left[2x - \frac{5x-1}{3} \right] = \frac{x-1}{3} + \frac{1}{2}$

10. $\frac{x}{x-a} + \frac{x}{x-b} = 2$ find x
 (a) $\frac{a}{b}$ (b) ab
 (c) $\frac{2ab}{a+b}$ (d) $2ab$

11. The ratio of two sides of parallelogram is as 3 : 5, and its perimeter is 48m, then the sides of the parallelogram is:
 (a) 9 m, 15 m (b) 3 m, 5m
 (c) 33 m, 25 m (d) None of these

12. In the given figure ABCD is parallelogram. Then, find the value of x if $\angle A = 3x + 10^\circ$ and $\angle C = x + 80^\circ$



13. The diagonals of a parallelogram ABCD intersect each other at the point O. If $\angle DAC = 32^\circ$ and $\angle AOB = 70^\circ$, then $\angle DBC$ is:
 (a) 40° (b) 35°
 (c) 60° (d) 115°

14. A quadrilateral ABCD has four angles $x^\circ, 2x^\circ, \frac{5x^\circ}{2}$ and $\frac{7x^\circ}{2}$ respectively. What is the difference between the value of biggest and the smallest angles.
 (a) 40° (b) 100°
 (c) 80° (d) 20°

15. The number which is exactly divisible by 99
 _____.
 (a) 3572404 (b) 135792
 (c) 913464 (d) 114345

16. The area of a rectangle is given by $A = 8x^2 - 2x - 15$. If the length be larger than the breadth, it is:

(a) $3x + 5$ (b) $5x + 3$
(c) $4x + 5$ (d) $2x - 3$

17. The value of $\frac{(x + \frac{1}{y})^a (x - \frac{1}{y})^b}{(y + \frac{1}{x})^a (y - \frac{1}{x})^b}$ is equal to:
(a) $(\frac{x}{y})^{a+b}$ (b) $(\frac{y}{x})^{a+b}$
(c) $(xy)^{a+b}$ (d) $\frac{x^a}{y^b}$

18. If $x + 2 = 0$, then the value of $\frac{3(x+3)(x+1)}{x-1}$ is:
(a) 2 (b) 3
(c) 4 (d) 1

19. If $9x^2 + 25y^2 = 30xy$, then the value of $x : y$ is:
(a) 5 : 3 (b) 3 : 5
(c) 9 : 25 (d) 25 : 9

20. If $a^2 + b^2 = 7$ and $(a-b)^2 = 3$, what is the value of ab ?
(a) 1 (b) $\sqrt{2}$
(c) 2 (d) 3

21. The value of $\left[\frac{a^2 - 5ab}{a^2 - 6ab + 5b^2} \times \frac{a^2 - b^2}{a^2 + ab} \right]$
(a) -1 (b) $\frac{a}{b}$
(c) $\frac{1}{a}$ (d) 1

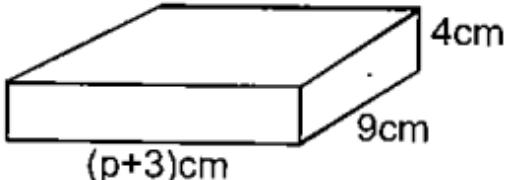
22. Which of the following statement is correct?
(a) $a^0 = 0$ (b) $a^3 + a^2 = a^5$
(c) $(a^7)^3 = a^{21}$ (d) $a^1 = 1$

23. The solution of $3^{3x-5} = \frac{1}{9^x}$ is
(a) $5/2$ (b) 5
(c) 1 (d) $7/3$

24. The correct relationship is:
(a) M.P. = S.P. - discount
(b) S.P. = M.P. - discount
(c) M.P. + S.P. = discount
(d) None of these

25. The amount for a sum of money in 5 years is Rs. 15625 and in 3 years at the same rate of interest is Rs. 10000. Find the rate of interest.
(a) 10% (b) 12%
(c) 25% (d) 20%

26. A can do $\frac{1}{3}$ of a work in 5 days and B can do $\frac{2}{5}$ of the work in 10 days. In how many days can both A and B together do the work?
(a) $7\frac{3}{4}$ days (b) $8\frac{4}{5}$ days
(c) $9\frac{3}{8}$ days (d) 10 days

27. The figure shows a cuboid with a volume of 180 cm^3 , find p.


(a) 2 (b) 18
(c) 36 (d) 72

28. What are the lengths of the sides of a triangle that has a perimeter of 24 centimeters?
(a) 6 cm, 6 cm, 12 cm (b) 7cm, 7cm, 10 cm
(c) 3 cm, 8cm, 13 cm (d) 4 cm, 5 cm, 15 cm

29. The mean of 9 observation is 13. The mean of the first 5 observations is 11 and the mean of last 5 observations is 14, then 5th observation is.
(a) 11 (b) 12
(c) 8 (d) 13

30. A number is selected from numbers 1 to 27. The probability that it is prime is:
(a) $\frac{2}{3}$ (b) $\frac{1}{6}$
(c) $\frac{1}{3}$ (d) $\frac{2}{9}$

31. Beauty is Skin deep. (Which word is abstract noun)
(a) Beauty (b) Skin
(c) Is (d) Deep

32. Choose the noun which is always Singular.
(a) Furniture (b) Knife
(c) Baby (d) Chair

33. Which of the following noun is a proper noun?
(a) Milk (b) Peter
(c) Singer (d) Sister

34. The feminine form of the noun 'lord' is
(a) Lady (b) Lordess
(c) Woman (d) Sister

35. Some body must have taken my sandwich. What type of Pronoun is the word "Some body"?
(a) Demonstrative (b) Indefinite
(c) Possessive (d) Relative

36. Choose the correct type of adjective written in capital letter. WHAT instrument do you play in the band?
(a) Demonstrative (b) Interrogative
(c) Indefinite (d) Intensive

37. Students SOMETIMES dismiss from the cafeteria. Identify the type of adverb.
(a) Time (b) Place
(c) Manner (d) None

38. We Frequently arrive before the start of class. Identify the adverb.
(a) Frequently (b) Arrive
(c) Before (d) Start

39. Come here, you have to see this! (choose the suitable adverbs)
(a) Well (b) Quickly
(c) Slowly (d) None of these

40. The boys television every night unless they have homework. (Correct form of verbs)
(a) Watch (b) Watches
(c) Watched (d) Watching

41. My sister to the radio in the morning.
(a) Listen (b) Listens
(c) Listened (d) None of these

42. My mathematics weak. (Subject-verb-Agreement)
(a) Is (b) Are
(c) Will (d) Am

43. Seven rupees enough to buy that bottle. (Subject verb Agreement)
(a) Is (b) Are
(c) AM (d) None of these

44. The problem to the children. (Voice)
(a) Explained (b) Was explained
(c) Were explained (d) Being explained

45. The visitors a collection of old manuscripts (Change the voice)
(a) Were shown (b) Have shown
(c) Being shown (d) Been shown

46. Since the keys are with my brother, I your money. (use the correct 'Modal')
(a) Will not lend (b) Can not lend
(c) May not lend (d) Should not lend

47. Our garden looks awful this summer. There are too weeds. (Choose the determiners)
(a) Much (b) Every
(c) Many (d) None of these

48. They left in midnight their village. (Choose the suitable preposition)
(a) At (b) To
(c) Near (d) In

49. I did not go to the show I had already seen it. (Choose the correct conjunction)
(a) Until (b) Because
(c) So (d) But

50. he is thin, he is strong. (Conjunction)
(a) But (b) As
(c) Though (d) Because

51. A pressure of 10kPa acts on an area of 0.3m^2 . The force acting on the area will be.

(a) 3000 N (b) 30 N
(c) 3N (d) 300N

52. The weight of an object can be measured by-

(a) Beam balance (b) Analytical balance
(c) Spring balance (d) Physical balance

53. Sound can travel through-

(a) Solids only (b) Gases only
(c) Liquids only (d) Solids, liquids and gases

54. The sound waves travel fastest in-

(a) Solids (b) Liquids
(c) Gases (d) Vacuum

55. Which of the following is a weak electrolyte?

(a) Carbonic acid (b) Sodium hydroxide
(c) Copper sulphate (d) Nitric acid

56. An element X reacts with water to form a solution which turns phenolphthalein indicator pink. The element X is most likely to be-

(a) Sulphur (b) Sodium
(c) Carbon (d) Silicon

57. The metal which will not produce hydrogen gas on reacting with dilute sulphuric acid is-

(a) Sodium (b) Silver
(c) Iron (d) Zinc

58. Which of the following is a man-made fibre prepared from wood-pulp?

(a) Flax (b) Nylon
(c) Acrylic (d) Rayon

59. Which of the following is not a thermoplastic polymer?

(a) Polyester (b) Melamine
(c) Nylon (d) Polyvinyl chloride (PVC)

60. Which of the following is usually referred to as 'black gold'?

(a) Coke (b) Coaltar
(c) Petroleum (d) Coal

61. A disease in human beings caused by virus is

(a) Typhoid (b) Influenza
(c) Dysentry (d) Cholera

62. Propagation of ginger is generally done using

(a) Seed (b) Stem (rhizome)
(c) Root (d) Leaf

63. What do black buck, elephant, python and golden cat together represent in a forest

(a) Fauna (b) Flora
(c) Ecosystem (d) Species

64. Which of the following is not a way to conserve water?

(a) Replace (b) Reduce
(c) Reuse (d) Recycle

65. Structure present in a cell which is responsible for determination of the sex of a baby is:

(a) Cytoplasm (b) Cell membrane
(c) Nucleus (d) Chromosome

66. Study of Maps is known as

(a) Map making (b) Cartography
(c) Designing (d) None of the above

67. Where did the Rashtrakutas rule

(a) Western Deccan (b) Bengal
(c) Gujrat and Rajasthan (d) Tamilnadu

68. Name the language of administration under the Delhi Sultans

(a) Hindi (b) Sanskrit
(c) Urdu (d) Persian

69. Mongols were the descendants of

(a) Genghis Kan (b) Timur
(c) Both (a) and (b) (d) None of these

70. Agra fort was built by

(a) ShahJahan (b) Babur
(c) Humayun (d) Akbar

71. Who built the Rajarajeshvara temple?

(a) Krishnadeva Rajya (b) Akbar
(c) Raja Raja chola (d) None of these

72. Which of these is a part of the biological environment?

(a) Plants (b) Air
(c) Water (d) Mountains

73. Mount Everest has a height of
(a) 8248 m (b) 8448 m
(c) 8848 m (d) 8848.8m

74. Oxbow lakes are found in
(a) Glaciers (b) River Valleys
(c) Deserts (d) Mountains

75. The inner most layer of the earth is
(a) Crust (b) Core
(c) Mantle (d) None of these

76. How much percentage of atmosphere is constituted by oxygen gas
(a) 10.90% (b) 15-95%
(c) 25.95% (d) 21%

77. Generally the Warm ocean currents originates, near:
(a) Poles (b) Equator
(c) Tides (d) None of these

78. Tsunamies are caused due to
(a) Volcanos (b) Tides
(c) Earth quakes (d) Ocean Currents

79. Which forests shed their leaves?
(a) Coniferous (b) Deciduous
(c) Tidal (d) Taiga

80. Where were stone age tools found?
(a) In Asia (b) In Australia
(c) In Africa (d) In South Africa

81. Directions : (Q.1 to Q. 3) Find the missing terms.
9, 7, 14, 11, 33, 28, ?, 133, 931
(a) 64 (b) 46
(c) 140 (d) 123

82. 999, 730, 510, 345, 213,?
(a) 122 (b) 126
(c) 68 (d) 128

83. 2,5,14,7,3,20,10,4,?
(a) 26 (b) 30
(c) 22 (d) 28

84. Directions : (Q. 4 to Q.6) What comes in place of question mark(s) in the following letter series?
Q1F,S2E, U6D, W21C,?
(a) Y66B (b) Y44B
(c) Y88B (d) Z88B

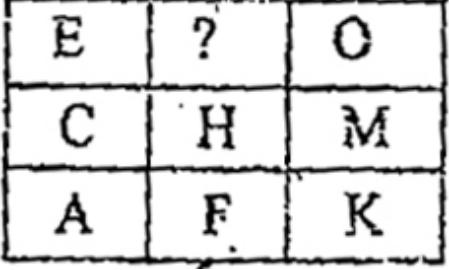
85. AB, BA, ABD, DBA, PQRS, ?
(a) SRQP (b) SRPQ
(c) SQRP (d) RSQP

86. ACE, BDF, CEG, ?
(a) DFE (b) DEF
(c) DFH (d) DEH

87.

(a) 54 (b) 51
(c) 48 (d) 44

88.

89. 

(a) L (b) J (c) G (d) N

90. Give interchanges signs '+' and 'x', number '3' and '7'.
 (a) $23 + 17 \times 73 = 1241$ (b) $37 + 73 \times 12 = 112$
 (c) $23 \times 17 + 37 = 428$ (d) $23 + 17 \times 73 = 388$

91. Given interchanges: Signs - and \times and numbers 3 and 6
 (a) $6 - 3 \times 2 = 9$ (b) $3 - 6 \times 8 = 10$
 (c) $6 \times 3 - 4 = 15$ (d) $3 \times 6 - 4 = 33$

92. Directions : Form a meaningful word by unscrambling the given letters and choose the option which gives the correct order of the letters as indicated by the number to form words.
 V A R S T E
 1 2 3 4 5 6
 (a) 2, 3, 1, 6, 4, 5 (b) 3, 2, 4, 5, 6, 1
 (c) 4, 5, 2, 3, 1, 6 (d) 6, 3, 4, 5, 2, 1

93. Directions : In each of the following questions a word has been given, followed by four other words, one of which cannot be formed by using the letters of the given word. Find the word.
 TEMPERAMENT
 (a) METER (b) PETER
 (c) TENTER (d) TESTER

94. If 'MACHINE' is coded as 19-07-9-14-15-20-11, then how will you code 'DANGER' in the same code?
 (a) 11-7-20-16-11-24 (b) 13-7-20-9-11-25
 (c) 10-7-20-13-11-24 (d) 13-07-20-10-11-25

95. In a certain code language 'ROPE' is written as '%57 \$', 'DOUBT' is written as '35#8*' and 'LIVE' is written as '@24\$'. How is 'TROUBLE' written in that code language?

(a) *%5#8@\$ (b) *%#58@\$
 (c) *%5#8@4 (d) *%#58\$@

96. A and B start walking in opposite direction. A covers 3 kms and B covers 4 kms. Then A turns right and walks 4 kms and B turns right and walks 3 kms. How far is each from the starting point?
 (a) 5 kms (b) 4 kms
 (c) 3 kms (d) 9 kms

97. If the compass is rotated by 1935° in anticlockwise direction, then which direction will west be pointed?
 (a) South (b) North-West
 (c) South-East (d) North-East

98. If in a coded language the word 'EAST' is written as 'FAST' and 'BAT' is written as 'CAT', then in the same coded language 'RAT' will be written as :
 (a) TAP (b) SAT
 (c) PAT (d) QAT

99. If P = 16, NC = 17 and AEO = 21, then what is the value of NEHLA?
 (a) 41 (b) 40
 (c) 48 (d) 46

100. In a coded language the given alphabets are written in special codes.
 A B C D E S U V M N
 7 9 1 3 4 2 0 6 5 8
 Then code 973578 will be :
 (a) BADMAN (b) BACMAN
 (c) DUEMAN (d) MANSDE



Prince Sainik School Admission Test

Final Answer Key

Class - IX

Date : 21-03-2021

Que	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Ans	2	2	2	3	1	2	4	1	1	3	1	2	3	2	4	3	1	4	1	3	4	3	3	2	3
Que	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Ans	3	1	2	3	3	1	1	2	Bonus	2	2	4	1	2	1	2	2	1	2	1	2	3	2	2	3
Que	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
Ans	1	3	4	1	1	2	2	4	2	3	2	2	1	1	4	2	1	4	3	1	3	1	4	2	2
Que	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ans	4	2	3	2	3	3	4	4	3	1	3	1	2	2	4	2	3	4	3	1	1	4	2	2	1