DPSG DEHRADUN

ARYABHATA MATHEMATICIAN OF THE YEAR

NUMERICAL ABILITY TEST 2017

NAME:-_____**Reg. No:-** _____ **GRADE - VI**

NO. OF QUESTIONS : 60 **TOTAL MARKS** : 60 **TIME** : 60 MINUTES

(SECTION-A)

1. **Tom has as many brothers as sisters. How many more brothers does his sister mary have?**
   (a)1 (b)2 (c)3 (d)4
2. **How many pills do I need if I eat one pill every half an hour from 11:15AM to 2:45PM?**
   (a)9 (b)7 (c)6 (d)8
3. **Five girls are standing in a row facing east Vanita is to the right on Meena, Teena and Seema. Meena, Teena and Seema are to the right of Reema. If Teena is fourth from the left end how far is Meena from the right?**
   (a)First (b)Fifth (c)Fourth (d)Second
4. **The number of hours left today is half of the numbers of hours already passed. What time is it?**
   (a)6:00PM (b)4:00PM (c)8:00PM (d)None of these
5. **From the ground floor a man went down 3 floors to the basement parking, in a lift, and then went up seventeen floors in a multi storied building. Which floor did he reach?**
   (a) 14 (b)12 (c) 10 (d)20
6. **20 monkeys ate 10 bananas each, every day, for 3 weeks. How many bananas did they eat?**
   (a) 4100 (b) 4200 (c) 4300 (d) None of the these
7. **Number of days in February, March , April in the year 2016 ?**
   (a)81 (b)91 (c)90 (d)89
8. **The total age of Rick, Mick and Hick is 188 years. What was the total of their ages 3 years ago?**
   (a)171 (b)179 (c)174 (d)177
9. **A frog has fallen into a ditch which is 8 meters deep. Each day the frog climbs 2 metres and then falls back by 1 metre. In how many days will the frog reach the top?**
   (a)8days (b)4days (c)9days (d) 7days
10. **The neighbourhood Grocery Store decides to give away 500 kgs of vegetables as a part of a campaign to get people to eat more vegetables. If 70 people get an equal amount of vegetables, how many remaining kgs will the grocer have to give away?**
    (a)10kgs (b) 1Kg (c)100Kgs (d)0

(SECTION-B)

11. Difference between the place value and face value of 7 in 658742 is

(a)0 (b)42 (c)735 (d)693

12. Which of the following is not meaningfull

(a)XIV (b)XXXV (c)XXV (d)VX

13. The HCF of two consecutive even numbers is

(a)0 (b)2 (c)1 (d)None of these

14. The sum of prime numbers between 60 and 75 is

(a)199 (b)201 (c)211 (d)272

15. Product of the successor and the predecessor of 99 is

(a)9800 (b)9900 (c)1099 (d)9700

16. The smallest number which is neither prime nor composite is

(a)0 (b) 1 (c) 2 (d)3

17. Least number of 4-digits which is exactly divisible by 9 is

(a)1008 (b)1009 (c)1026 (d)1018

18. The value of 47 x 99 is

(a)4635 (b)4653 (c)4563 (d)6453

19. 86+(-28)+12+(-34)=

(a)-36 (b)40 (c)36 (d)-40

20. Sum of two integers is -23. If one of them is 18, then the other is

(a)-14 (b)14 (c)41 (d)-41

21. If $\frac{1}{3}+\frac{1}{2}+\frac{1}{x}=4$, then the value of x is

(a) $\frac{5}{18}$ (b) $\frac{6}{19}$ (c) $\frac{18}{5}$ (d) $\frac{24}{11}$

22. If $\frac{11}{4}=\frac{77}{x}$ then value of x is

(a)28 (b)38 (c)48 (d)None of these

23. 0.35 – 0.035 =

(a) 0.3 (b) 0.349 (c) 0.315 (d) 0.353

24. 2.5 + 3.05 – 4.005 =

(a)1.545 (b)1.455 (c)1.554 (d)0.545

25. A^2b^3 x $2Ab^2$ =

(a)$2A^3b^4$ (b)$2A^3b^5$ (c)2Ab (d)None of these

26. 5 more than twice a number x is written as

(a)5 + x +2 (b)5x + 2 (c)2x + 5 (d)2x - 5

27. The length of a rectangle is y times its breadth x then the area of the rectangle is

(a)xy (b)xy^2 (c)x^2y (d)None of these

28. A ratio equivalent to 2:3 is

(a)4:9 (b)2:6 (c)6:9 (d)8:9

29. The sides of a triangle are in the ratio 2:3:5. If its perimeter is 100cm, the length of its smallest side is
(a)10cm (b)20cm (c)30cm (d)40cm

30. The perimeter of a rhombus is 20cm. What will be the length of each of its sides
(a)5cm (b)6 (c)4 (d)3cm

31. An angle of measure 360^0 is called
(a) A zero angle (b) A straight angle (c) A reflex angle (d)A complete angle

32. The number of degree's in 2 right angles is
(a) 360 (b) 90 (c) 270 (d) None of these

33. Three angles of a quadrilateral are 75º, 90º and 75º. The fourth angle is
(a)90º (b) 95º (c) 105º (d) 120º

34. ABCD is a rhombus such that ∠ACB = 40º. Then ∠ADB is
(a)40º (b) 45º (c) 50º (d) 60º

35. A circle of radius r cm has a diameter of length
(a) 2r (b) 4r (c) 6r (d)8r

36. How many circles can be drawn to pass through two given points
(a)1 (b) 2 (c) 0 (d) As many as possible

37. The median of a triangle divides it into two
(a) triangles of equal area (b) congruent triangles (c) right triangles (d) isosceles triangles

38. Two parallelograms are on equal bases and between the same parallels. The ratio of their areas is
(a)1 : 2 (b) 1 : 1 (c) 2 : 1 (d) 3 : 1

39. ABCD is a quadrilateral whose diagonal AC divides it into two parts, equal in area, then ABCD
(a)is a rectangle (b) is always a rhombus (c) is a parallelogram (d) need not be any of (A), (B) or (C)

40. If a triangle and a parallelogram are on the same base and between same parallels, then the ratio of the area of the triangle to the area of parallelogram is
(a)1 : 3 (b) 1 : 2 (c) 3 : 1 (d) 1 : 4

41. Greatest chord of a circle is called its
(a)radius (b)diameter (c)chord (d)secant

42. Angle formed between minute hand and hour hand at 4 O'clock is
(a)acute angle (b)obtuse angle (c)right angle (d)straight angle

43. Number of circles that can be drawn through three non-collinear points are
(a)1 (b)0 (c)2 (d)3

44. With the help of a ruler and a compass, it is possible to construct an angle of :
(a)35° (b) 40° (c) 75° (d) 47.5°

45. Total number of edges of a cuboid is
(a)4 (b) 6 (c) 8 (d) 12

(SECTION-C)

46. If A,B, C divides Rs1200 in the ratio 2:3:5 then B's Share is

(a) 240 (b) 600 (c) 380 (d) 360

47. The ratio of boys and girls in a school is 12:5. If there are 840 girl in the school then the number of boys is

(a)1190 (b) 2380 (c)2856 (d) 2142

48. If the cost of 5 bars of a soap is Rs30, then the cost of one dozen bars of soap is

(a) 60 (b) 120 (c) 72 (d) 140

49. The lateral surface area of a cube is 256 m^2. The volume of the cube is

(a) 512 m^3 (b) 64 m^3 (c) 216 m^3 (d) 256 m^3

50. The cost of putting a fence around a rectangular field 34m long and 18m wide at Rs.2 per m is

(a)104 (b) 208 (c) 216 (d) 116

51. The sides of a rectangle are in the ratio 5:4. If its perimeter is 72cm, then its longer side is

(a)40 (b) 20 (c) 30 (d) 60

52. Marks scored by 5 students in a class test are 8, 6, 10, 4, 7 what is the average score

(a)8 (b) 5 (c) 6 (d) 7

53. A train runs 200kms in 5 hours. How many kilometers does it run in 7 hours

(a) 240 (b) 280 (c) 300 (d) 320

54. 2 dozen of oranges cost Rs60 find the cost of 120 oranges

(a)300 (b)350 (c) 400 (d) 250

55. Mean of the following numbers :

4, 4, 5, 7, 6, 7, 7, 12, 3, 5 is

(a)4 (b) 5 (c) 6 (d) 7

$(\boldsymbol{SECTION - D})$

56. The length of a side of square is given as 2*x* + 3. Which expression represents the perimeter of the square?

(a)2*x* + 16 (b) *6x* + 9 (c) 8*x* + 3 (d) 8*x* + 12

57. If Yashika has a packet of 20 biscuits. She gives $\frac{1}{2}$ of them to Yana and $\frac{1}{4}$ of them to Jaya. How many biscuits does Yashika keep

(a)5 (b) 6 (c) 7 (d) 8

58. Twice a number when increased by 7 gives 25. The number is

(a)7 (b) 9 (c) 10 (d) 8

59. The sum of two consecutive odd numbers is 36. The larger number is

(a)17 (b) 15 (c) 19 (d) 21

60. In a Δ ABC, if ∠A +∠B = 150^0 and ∠B +∠C =75^0, then ∠B =

(a) 35^0 (b)45^0 (c)55^0 (d)25^0