

# NEWGEN SEARCH OLYMPIAD TALENT TEST

NEWGEN SCHOLARS - THE SCIENCE OLYMPIAD

Class: 7

Name: .....

Time:90mins

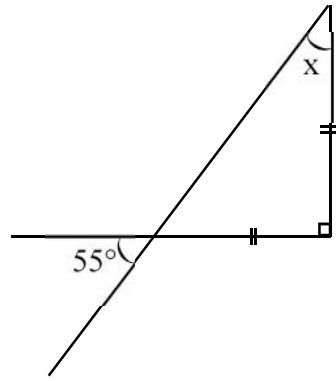
## MATHEMATICS

### I. Choose the correct answers :

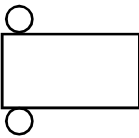
- Value of product  $\frac{6}{5} \times \frac{7}{11} = \dots\dots$   
(A)  $\frac{42}{66}$  (B)  $\frac{42}{55}$  (C)  $\frac{66}{35}$  (D) None
- Write L.H.S. for following equation  $14 = 27 - y$   
(A)14 (B)27-y (C) y (D)27
- $ax(b+c) = axb + axc$  is called ....  
(A) Commulative property (B) Associative property  
(C) Distributive Property (D) Closure property
- $\frac{1}{14} - \frac{2}{7}$  is equal to .....
- 0.01 x 1000 is equal to ...  
(A)1 (B) 0.1 (C) 0.01 (D) 10
- In complementary angles, sum of angles will be ....  
(A) 180 (B) 210 (C) 360 (D) 90
- 5 paise is equal to  
(A)  $\frac{1}{20}$  (B)  $\frac{1}{30}$  (C)  $\frac{1}{40}$  (D)  $\frac{1}{50}$
- A coin is tossed . What is the probability of getting head ?  
(A) 0 (B) 1 (C)  $\frac{1}{2}$  (D) 1
- A die is thrown . What is the probability of getting 6 ?  
(A) 0 (B)  $\frac{1}{6}$  (C)  $\frac{1}{2}$  (D) 1
- The mean of the numbers 10, 20, 30, and 40 is...  
(A) 20 (B) 25 (C) 30 (D) 50
- The solution of the equation  $\frac{z}{22} = \frac{3}{4}$   
(A)  $\frac{1}{2}$  (B)  $\frac{3}{2}$  (C)  $\frac{1}{4}$  (D)  $\frac{3}{4}$
- The solution of  $\frac{3m}{7} = 6$  is....  
(A) 6 (B) 7 (C) 14 (D) 3
- The solution of the equation  $-4(2+x)=4$   
(A) -1 (B) -2 (C) -3 (D) -4

14. The measure of the angle which is equal to its complement is ...  
 (A)  $30^\circ$  (B)  $60^\circ$  (C)  $45^\circ$  (D)  $90^\circ$
15. What is the measure of the complement of angle  $90^\circ$  ?  
 (A)  $90^\circ$  (B)  $0^\circ$  (C)  $180^\circ$  (D)  $45^\circ$
16. In the proportion  $a:b = c:d$ , a and d will be  
 (A) 180 (B) Extremes (C) Mean (D) mode
17.  $SP = MP - \dots\dots\dots$   
 (A) Sales price (B) Cost price (C) Discount (D) None
18. How many medians can a triangle have ?  
 (A) 1 (B) 2 (C) 3 (D) 6
19. Median of data 48, 48, 15, 20, 28, 17, 14 and 110 is  
 (A) 23 (B) 24 (C) 25 (D) 26

20. Find the angle x in the adjacent figure :  
 (A)  $45^\circ$   
 (B)  $40^\circ$   
 (C)  $35^\circ$   
 (D)  $50^\circ$



21. If  $\triangle ABC \cong \triangle PQR$ , Then  $\overline{BC}$  corresponds to  
 (A)  $\overline{PQ}$  (B)  $\overline{QR}$  (C)  $\overline{RP}$  (D) None of these
22. Who is famous for his "Theory of Estimation"  
 (A) Dr. C.R. Rao (B) C.V. Raman (C) Eulid (D) None
23. Which is unlike term  
 (A)  $7a^2$  and  $14a^2$  (B)  $7b^2$  and  $b^2 \times 7$  (C)  $19xyz$  and  $27x^2yz$  (D)  $5Z^2$  and  $15Z^2$
24. The ratio of Rs. 10 to 50 paise is  
 (A) 20:1 (B) 10:1 (C) 5:1 (D) 1:20
25.  $\frac{1}{8}$  as percent is  
 (A) 25% (B)  $12\frac{1}{2}\%$  (C) 20% (D) 16%
26. The price of petrol has risen from Rs. 48 to Rs. 52 a litre .  
 By what percent has the price risen up ?  
 (A)  $\frac{25}{3}\%$  or 8.33% (B) 25% (C) 4% (D) 40%
27. The denominator of rational number  $\frac{5}{-3}$  is  
 (A) 5 (B) -3 (C) 3 (D) 8

28. If  $\frac{4}{5} = \frac{12}{?}$ , then ? =  
 (A) 5 (B) 10 (C) 15 (D) 25
29. Which of the following is correct ?  
 (A)  $\frac{1}{-2} > \frac{-1}{3}$  (B)  $\frac{1}{-2} < \frac{-1}{3}$  (C)  $\frac{1}{-2} = \frac{-1}{3}$  (D) None of these
30. The sum  $\frac{5}{4} + \left(\frac{-25}{4}\right) =$   
 (A) -5 (B) 5 (C) 4 (D) -4
31.  $\frac{7}{12} \div \left(-\frac{7}{12}\right) =$   
 (A)  $\frac{-49}{144}$  (B) -1 (C) +1 (D) -7
32. Perimeter of rectangle  
 (A) 4 x side (B) 2 x (l+b) (C) l x b (D) side x side
33. value of  $x^{-7} \times \frac{1}{x}$   
 (A)  $X^{-8}$  (B)  $X^9$  (C)  $X^{-9}$  (D)  $X^6$
34.  this nets related to  
 (A) Cube (B) Cylinder (C) square (D) None
35. Add :  $3x^2, -9x^2, 32x^2$   
 (A)  $27x^2$  (B)  $26x^2$  (C)  $20x^2$  (D)  $28x^2$
36. Area of circle  
 (A)  $2f r$  (B)  $f r^2$  (C)  $lxb$  (D) side x side
37. Subtract  $-xy$  from  $xy$ .  
 (A)  $xy$  (B) 0 (C)  $2xy$  (D)  $4xy$
38. Find the value of the expression  $100 - 10x^3$  for  $x=0$ .  
 (A) 10 (B) -10 (C) 100 (D) -100
39. What is the coefficient of  $y^2$  in the expression  $3y^2+4x$ .  
 (A) 1 (B) 2 (C) 3 (D) 4
40. If the value of expression  $x^2-5x+k$  for  $x=0$  is 5, then the value of K is  
 (A) 2 (B) 3 (C) 4 (D) 5
41. The value of  $(-2)^4$  is  
 (A) 8 (B) -8 (C) 16 (D) -16
42. (-) even number = .....  
 (A) -1 (B) 1 (C) 0 (D) None of these
43.  $0 \times 10^4$   
 (A) 0 (B)  $10^4$  (C) 1 (D) None of these

44. The exponential form of 125 is  
 (A)  $5^4$  (B)  $5^3$  (C)  $5^2$  (D) None of these
45. 333 is standard form is ...  
 (A)  $3.33 \times 10^2$  (B)  $3.33 \times 10^3$  (C)  $3.33 \times 10^1$  (D)  $3.33 \times 10^4$
46. 1000000000000 in standard form is  
 (A)  $1 \times 10^{-10}$  (B)  $1 \times 10^{11}$  (C)  $1 \times 10^{-9}$  (D)  $1 \times 10^{12}$
47.  $(ab)^m =$   
 (A)  $a^m b^m$  (B)  $a^m b$  (C)  $ab^m$  (D)  $ab$
48.  $(2^\circ + 3^\circ) \times 4^\circ =$   
 (A) 1 (B) 2 (C) 3 (D) 4
49.  $\left(\frac{a^4}{a^2}\right) \times a^3 =$   
 (A)  $a^4$  (B)  $a^5$  (C)  $a^6$  (D)  $a^8$
50.  $(-2a)^3$   
 (A)  $2a^3$  (B)  $8a^3$  (C)  $-8a^3$  (D)  $59^3$

### GENERAL SCIENCE

51. An example of a physical change is \_\_\_\_\_  
 A) Magnetisation of iron B) \_\_\_\_\_  
 C) Photosynthesis by plants D) Digestion of food
52. \_\_\_\_\_ are lungs of earths  
 A) People B) Animals C) Forests D) Birds
53. Forests help to control \_\_\_\_\_  
 A) Population B) Pollution C) Soil erosion D) None
54. Which of the following soil has maximum water holding Capacity \_\_\_\_\_  
 A) Sandy B) Clayly C) Loamy D) All of these
55. Dead and decayed residue of plants and animals is called  
 A) Clay B) Sand C) Silt D) Humus
56. March 22 is the world \_\_\_\_\_ day  
 A) Forest B) Children C) Peace D) Water
57. Seed dispersal is essential for survival of \_\_\_\_\_  
 A) Animals B) Plants C) Birds D) None
58. Xanthium and Urena are disperse their seeds by  
 A) Birds and animals B) Water C) Air D) None
59. Seeds of cotton, caltropis and fruits of sunflower have \_\_\_\_\_  
 A) Skin B) Hooks C) Hair D) Thorns
60. The pollen grains are found in \_\_\_\_\_  
 A) Stigma B) Ovary C) Ovule D) Anther
61. Fusion of male and female parts is known as \_\_\_\_\_  
 A) Pollen tube B) Pollen grain C) Ovule D) Zygote
62. Vegetative propagation through leaves occurs in \_\_\_\_\_  
 A) Begonia B) Ginger C) Hibiscus D) Rose
63. Roots respire through \_\_\_\_\_  
 A) Spiracles B) Airspaces C) Lenticles D) Stomata
64. Which of the following animals breathe through their skin and lungs? \_\_\_\_\_  
 A) Fish B) Earthworm C) Frog D) Snake
65. The process which involves the exchange of gases is called \_\_\_\_\_  
 A) Circulation B) Breathing C) Digestion D) Respiration
66. Heterotrophic nutrition is observed in \_\_\_\_\_  
 A) Fungi B) Hibiscus C) Cuscuta D) Aloe vera
67. Raw materials involved in the process of photosynthesis \_\_\_\_\_  
 A) Water B) Sunlight C) Carbon dioxide D) All of them

68. Plants get water from the soil through their \_\_\_\_\_  
 A) Stem                                      B) Roots                                      C) Leaves                                      D) None
69. Starch can be tested with \_\_\_\_\_ solution  
 A) Lime water                                      B) Iodine                                      C) Nitrogen                                      D) Zinc
70. The relation between angle of incidence and angle of reflection is \_\_\_\_\_  
 A)  $\angle i = \angle r$                                       B)  $\angle i \neq \angle r$                                       C)  $\sin i = \sin r$                                       D) None of these
71. Clear images of objects cannot be produced by \_\_\_\_\_  
 A) Rough surface                                      B) Plane surface                                      C) Convex surfaces                                      D) Concave surfaces
72. Cyclones are caused due to difference in \_\_\_\_\_  
 A) Pressure                                      B) Heat                                      C) Force                                      D) None
73. Land and sea breeze occur due to \_\_\_\_\_  
 A) Convection                                      B) Radiation                                      C) Conduction                                      D) None
74. Powder used in varron board for .....  
 (A) Increasing friction                                      (B) decreasing friction (C) decoration                                      (D) fragrance
75. Dry cell converts chemical energy into \_\_\_\_\_  
 A) Heat energy                                      B) Light energy                                      C) Sound energy                                      D) Electric energy
76. \_\_\_\_\_ liquid is used in six's maximum minimum thermometer  
 A) Alcohol                                      B) Water                                      C) Mercury                                      D) Acid
77. In which region is the rainfall relatively less for the past two decades \_\_\_\_\_  
 A) Telangana                                      B) Rayalaseema                                      C) Andhra Pradesh                                      D) None
78. When we rub the soap nut seed on a stone, which energy is converted into heat energy \_\_\_\_\_  
 A) Mechanical                                      B) Chemical                                      C) Magnetic                                      D) Sound
79. Degree of hotness or coldness of a body is measured by \_\_\_\_\_  
 A) Thermometer                                      B) Barometer                                      C) Balance                                      D) Micrometer
80. Ball rolling on the surface of a table is an example of \_\_\_\_\_  
 A) Translatory motion                                      B) Rotatory motion  
 C) Both rotatory and translatory                                      D) Curvilinear motion
81. Movement of hands of a clock is an example of \_\_\_\_\_  
 A) Rotatory motion                                      B) Oscillatory motion  
 C) Curvilinear motion                                      D) Rectilinear motion
82. The process of cutting fleece from sheep is called  
 A) Combing                                      B) Shearing                                      C) Cleaning                                      D) Dyeing
83. The biggest seed growing centre is located at \_\_\_\_\_  
 A) Ananthapur                                      B) Harsely hills                                      C) Nalgonda                                      D) Hyderabad
84. When methyl orange is mixed with lemon juice it turns to \_\_\_\_\_  
 A) Red                                      B) Pink                                      C) Blue                                      D) Green
85. Which of the following is acidic in nature? \_\_\_\_\_  
 A) Antacid                                      B) Lime water                                      C) Lemon juice                                      D) Baking soda
86. The component of food that prevents constipation \_\_\_\_\_  
 A) Roughages                                      B) Carbohydrates                                      C) Fats                                      D) Water
87. Our daily diet should include plenty of \_\_\_\_\_  
 A) Fats                                      B) Proteins                                      C) Carbohydrates                                      D) Vitamins
88. An example of a periodic change is \_\_\_\_\_  
 A) Swinging of clock pendulum                                      B) Sneezing  
 C) Landslides during rains                                      D) Rusting of iron
89. Which is not a forest product among all \_\_\_\_\_  
 A) Plywood                                      B) Matchstick                                      C) Kerosene                                      D) Soapnut
90. Upper layers of soil are made up of \_\_\_\_\_  
 A) Leaf litter and humus                                      B) Rocks  
 C) Sand                                      D) None

91. \_\_\_\_ kills harmful disease causing organisms present in waste water
- A) Zinc                      B) Magnesium                      C) Chlorine                      D) None
92. Seeds of lotus dispersed by \_\_\_\_
- A) Air                      B) Water                      C) Insects                      D) None
93. Vegetative propagation through leaves occurs in \_\_\_\_
- A) Begonia                      B) Ginger                      C) Rose                      D) Hibiscus
94. The respiratory organs in cockroach are \_\_\_\_
- A) Lungs                      B) Spiracles                      C) Gills                      D) Lenticles
95. Cuscuta is an example of \_\_\_\_
- A) Symbiont                      B) Parasite                      C) Autotroph                      D) Saprophyte
96. We can make "A Garden in box" using the phenomenon of \_\_\_\_
- A) Refraction                      B) Diffraction                      C) Reflection                      D) None
97. 1 Kilo watt is equal to \_\_\_\_
- A) 10 W                      B) 100 W                      C) 1000 W                      D) 500 W
98. Upper fixed point of a thermometer in Celsius scale is \_\_\_\_
- A) 100°C                      B) 0°C                      C) 340°C                      D) 250°C
99. The law of inertia is proposed by \_\_\_\_
- A) Newton                      B) Einstein                      C) Galileo                      D) None
100. Pascal is the unit of \_\_\_\_
- A) Thrust                      B) Force                      C) Pressure                      D) Weight