

# ONE MARK SPECIAL TEST NAGAPATTINAM DISTRICT EDUCATION DEPARTMENT

Standard X

Reg.No. 

--	--	--	--

SCIENCE

Marks : 100

Time: 3.00 hrs

## I. Choose the correct answer:

1. One kilogram force equals to  
a) 9.8 dyne      b)  $9.8 \times 10^4$  N      c)  $98 \times 10^4$  dyne      d) 980 dyne
2. To project the rockets which of the following principle(s) is (are) required?  
a) Newton's third law of motion      b) Newton's law of gravitation  
c) law of conservation of linear momentum      d) both (a) and (c)
3. Inertia of a body depends on  
a) weight of the object      b) acceleration due to gravity of the planet  
c) mass of the object      d) both (a) and (b)
4. Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens  
a) f      b) 2f      c) infinity      d) between f and 2f
5. Power of a lens is -4D then its focal length is  
a) 4m      b) -40m      c) -0.25m      d) -2.5m
6. The eye defect 'Presbyopia' can be corrected by  
a) convex lens      b) concave lens      c) convex mirror      d) Bi focal lenses
7. The SI unit of force is \_\_\_\_\_  
a) energy      b) joule      c) newton      d) dyne
8. Which one of the following is a scalar quantity?  
a) momentum      b) moment of force      c) speed      d) velocity
9. In a myopic eye, the image of the object is formed  
a) behind the retina      b) on the retina  
c) in front of the retina      d) on the blind spot
10. The distance between the lens and focus is called  
a) pole      b) radius of curvature      c) focal length      d) principal axis
11. For air, the refractive index is \_\_\_\_\_  
a) 1      b) infinity      c) 0      d) 2

2/8

X Science (One Mark)

12. If a substance is heated or cooled, the change in mass of that substance is  
a) positive      b) negative      c) zero      d) none of the above
13. The value of absolute zero temperature is  
a)  $273^\circ\text{C}$       b)  $100^\circ\text{C}$       c)  $0^\circ\text{C}$       d)  $-273^\circ\text{C}$
14. Which of the following has the fastest process of heat transfer?  
a) Conduction      b) Convection      c) Radiation      d) all the above
15. The amount of heat energy required to rise the temperature of 1 gram of water through  $1^\circ\text{C}$  is  
a) One kilo calorie      b) one joule      c) one kelvin      d) one calorie
16. The formula for conversion of temperature from Kelvin to Celsius is  
a)  $C = K + 73$       b)  $C = K - 273$       c)  $C = K + 460$       d)  $C = K - 460$
17. Kilowatt hour is the unit of  
a) resistivity      b) conductivity      c) electrical energy      d) electrical power
18. SI unit of resistance is  
a) mho      b) joule      c) ohm      d) ohm meter
19. The rate of flow of charge in conductor is \_\_\_\_\_  
a) Charge      b) Current      c) Resistance      d) Conductivity
20. 1 Horse power is equal to \_\_\_\_\_  
a) 546 watt      b) 646 watt      c) 746 watt      d) 846 watt
21. In India, domestic circuits are supplied with an alternating current of potential \_\_\_\_\_  
a) 210V      b) 250-260V      c) 220-230V      d) 200V
22. When a sound wave travels through air, the air particles  
a) vibrate along the direction of the wave motion  
b) vibrate but not in any fixed direction  
c) vibrate perpendicular the direction of the wave motion  
d) do not vibrate
23. The frequency, which is audible to the human ear is  
a) 50 kHz      b) 20 kHz      c) 15000 kHz      d) 10000 kHz
24. Sound waves do not travel in \_\_\_\_\_  
a) vacuum      b) solid      c) liquid      d) gases
25. Dolphins and bats hear \_\_\_\_\_  
a) Audible wave      b) Infrasonic wave  
c) Ultrasonic wave      d) None of the above



3/8

## X Science (One Mark)

26. Artificial radioactivity was discovered by  
a) Becquerel b) Irene Curie c) Roentgen d) Neils Bohr
27. \_\_\_\_\_ isotope is used for the treatment of cancer  
a) Radio Iodine b) Radio Carbon c) Radio Cobalt d) Radio Nickel
28. \_\_\_\_\_ aprons are used to protect us from gamma radiations  
a) Lead oxide b) Iron c) Lead d) Aluminium
29.  $\beta$  rays are nothing but \_\_\_\_\_.  
a) protons b) neutrons c) electrons d) helium
30. Hydrogen atom does not have \_\_\_\_\_.  
a) proton b) neutrons c) electrons d) all the above
31. Kamini reactor is located at \_\_\_\_\_.  
a) Kalpakkam b) Koodankulam c) Mumbai d) Rajasthan
32. \_\_\_\_\_ is used to treat problems related to the thyroid gland  
a) Radio Sodium b) Radio Cobalt c) Radio iron d) Radio iodine
33. Mass of 1 mole of Nitrogen atom is  
a) 28 amu b) 14 amu c) 28 g d) 14 g
34. Which of the following is a triatomic molecule?  
a) Glucose b) Helium c) Carbon dioxide d) Hydrogen
35. Isotopes have different number of \_\_\_\_\_.  
a) molecules b) protons c) electrons d) neutrons
36. The sum of the number of protons and neutrons of an atom is \_\_\_\_\_.  
a) atomic number b) density c) mass number d) electrons
37. The gram molecular mass of water is  
a) 18 b) 18 g c) 20 g d) 22 g
38. The number of periods and groups in the periodic table are \_\_\_\_\_.  
a) 6, 16 b) 7, 17 c) 8, 18 d) 7, 18
39. \_\_\_\_\_ group contains the member of halogen family.  
a) 17<sup>th</sup> b) 15<sup>th</sup> c) 18<sup>th</sup> d) 16<sup>th</sup>
40. The process of coating the surface of metal with a thin layer of zinc is called \_\_\_\_\_.  
a) painting b) thinning c) galvanization d) electroplating
41. \_\_\_\_\_ is an important metal to form amalgam.  
a) Ag b) Hg c) Mg d) Al

4/8

## X Science (One Mark)

42. During electron affinity \_\_\_\_\_ is formed.  
a) atom b) metal c) cation d) anion
43. The number of components in a binary solution is \_\_\_\_\_.  
a) 2 b) 3 c) 4 d) 5
44. When pressure is increased at constant temperature the solubility of gases in liquid \_\_\_\_\_.  
a) No change b) increases c) decreases d) no reaction
45. 10% sugar solution means 10g of sugar in \_\_\_\_\_ g of water.  
a) 100 b) 20 c) 90 d) 110
46. The following is a deliquescent substance \_\_\_\_\_.  
a) quick lime b) ferric chloride  
c) silica gel d) conc. Sulphuric acid
47. The main factor(s) which govern(s) the solubility of a solute is (are)  
a) Nature of the solute and solvent b) pressure  
c) temperature d) all the above
48. Photolysis is a decomposition reaction caused by \_\_\_\_\_.  
a) heat b) electricity  
c) light d) mechanical energy
49. Powdered  $\text{CaCO}_3$  reacts more rapidly than flaky  $\text{CaCO}_3$  because of \_\_\_\_\_.  
a) large surface area b) high pressure  
c) high concentration d) high temperature
50. Plants grow by absorbing nutrients from the Earth and get their food by \_\_\_\_\_.  
a) photosynthesis b) thermal energy c) electricity d) heat
51. In a neutralization reaction, an acid and a base react to form water and \_\_\_\_\_.  
a) salt b) hydrogen c) oxygen d) all the above
52. Digestion of food is a \_\_\_\_\_ reaction  
a) neutralization b) hydration c) combination d) compustion
53. The pH of acid rain water is \_\_\_\_\_.  
a) 7 b) < 7 c) > 7 d) 0
54. Rectified spirit is an aqueous solution which contains about \_\_\_\_\_ of ethanol  
a) 95.5 % b) 75.5 % c) 55.5 % d) 45.5 %



5/8

## X Science (One Mark)

55. TFM in soaps represents \_\_\_\_\_ content in soap.  
 a) mineral      b) vitamin      c) fatty acid      d) carbohydrate
56. The substance obtained by the distillation of red ants is \_\_\_\_\_.  
 a) ethyl alcohol      b) ethylene      c) formic acid      d) propylene
57. IUPAC stands for \_\_\_\_\_.  
 a) Indian Union Panchayat Account Class  
 b) Inter Union Public Assistant Commission  
 c) International Union for Pure and Applied Chemistry  
 d) Inter Ultra Pure Application Coffee
58. Compound having fruity odour is \_\_\_\_\_.  
 a) ether      b) alcohol      c) ester      d) aldehyde
59. Casparian strips are present in the \_\_\_\_\_ of the root.  
 a) cortex      b) pith      c) pericycle      d) endodermis
60. The endarch condition is the characteristic feature of  
 a) root      b) stem      c) leaves      d) flower
61. Which is formed during anaerobic respiration?  
 a) Carbohydrate      b) Ethyl alcohol      c) Acetyl CoA      d) Pyruvate
62. Oxygen is produced at what point during photosynthesis?  
 a) when ATP is converted to ADP      b) when CO<sub>2</sub> is fixed  
 c) when H<sub>2</sub>O is splitted      d) All of these
63. ATP factory of the cell is  
 a) Ribosome      b) Mitochondria  
 c) Chloroplasts      d) thylakoid and grana
64. In leech locomotion is performed by  
 a) Anterior sucker      b) Parapodia  
 c) Setae      d) Contraction and relaxation of muscles
65. The body of leech has  
 a) 23 segments      b) 33 segments      c) 38 segments      d) 30 segments
66. Mammals are \_\_\_\_\_ animals.  
 a) Cold blooded      b) Warm blooded      c) Poikilothermic      d) All the above
67. CNS stands for \_\_\_\_\_.  
 a) Central National System      b) Central Nerves System  
 c) centre Natural System      d) Central Natural System

6/8

## X Science (One Mark)

68. In mammals, the thoracic cavity is separated from abdominal cavity by  
 a) Diastema      b) Diaphragm  
 c) Coelomic body cavity      d) Pleural membrane
69. Water which is absorbed by roots is transported to aerial parts of the plant through  
 a) cortex      b) epidermis      c) phloem      d) xylem
70. The wall of human heart is made of  
 a) Endocardium      b) Epicardium      c) Myocardium      d) All of the above
71. Which is the correct sequence of blood flow ?  
 a) ventricle atrium vein arteries      b) atrium ventricle veins arteries  
 c) atrium ventricle arteries vein      d) ventricles vein atrium arteries
72. 'Heart of heart' is called  
 a) SA node      b) AV node      c) Purkinje fibres      d) Bundle of His
73. Root hairs are  
 a) cortical cell      b) projection of epidermal cell  
 c) unicellular      d) both (b) and (c)
74. Bipolar neurons are found in  
 a) retina of eye      b) cerebral cortex  
 c) embryo      d) respiratory epithelium
75. The outer most of the three cranial meninges is  
 a) arachnoid membrane      b) pia mater  
 c) duramater      d) myelin sheath
76. Which nervous band connects the two cerebral hemispheres of brain?  
 a) thalamus      b) hypothalamus      c) pons      d) corpus callosum
77. Node of Ranvier is found in  
 a) muscles      b) axons      c) dendrites      d) cyton
78. The endocrine gland that is located in the brain is  
 a) Thymus gland      b) Adrenal gland      c) Pituitary gland      d) Parathyroid gland
79. Gibberellins cause:  
 a) Shortening of genetically tall plants      b) Elongation of dwarf plants  
 c) Promotion of rooting      d) Yellowing of young leaves



7/8

## X Science (One Mark)

80. Identify the exocrine gland  
a) Pituitary gland    b) Adrenal gland    c) Salivary gland    d) Thyroid gland
81. Which organ acts as both exocrine gland as well as endocrine gland?  
a) Pancreas    b) Kidney    c) Liver    d) Lungs
82. Which one is referred as "Master Gland"?  
a) Pineal gland    b) Pituitary gland    c) Thyroid gland    d) Adrenal gland
83. Sudden elongation of stem followed by flowering is called  
a) Bolting    b) Apical Dominance  
c) Richmond Lang effect    d) None of the above
84. The plant which propagates with the help of its leaves is \_\_\_\_\_.  
a) Onion    b) Neem    c) Ginger    d) Bryophyllum
85. The essential parts of a flower are \_\_\_\_\_.  
a) Calyx and Corolla    b) Calyx and Androecium  
c) Corolla and Gynoecium    d) Androecium and Gynoecium
86. Estrogen is secreted by  
a) Anterior pituitary    b) Primary follicle  
c) Graffian follicle    d) Corpus luteum
87. Okasaki fragments are joined together by \_\_\_\_\_.  
a) Helicase    b) DNA polymerase  
c) RNA primer    d) DNA ligase
88. The 'use and disuse theory' was proposed by \_\_\_\_\_.  
a) Charles Darwin    b) Ernst Haeckel  
c) Jean Baptiste Lamarck    d) Gregor Mendel
89. The best way of direct dating fossils of recent origin is by  
a) Radio-carbon method    b) Uranium lead method  
c) Potassium-argon method    d) Both (a) and (c)
90. The term Ethnobotany was coined by  
a) Khorana    b) J.W. Harsbberger  
c) Ronald Ross    d) Hugo de Vries
91. Palaeontology deals with the study of \_\_\_\_\_.  
a) Internal organs of ancestors    b) Origin of life  
c) Ancient animals    d) Fossils

8/8

## X Science (One Mark)

92. We can cut the DNA with the help of  
a) scissors    b) restriction endonucleases    c) knife    d) RNAase
93. Pusa Komal is a disease resistant variety of \_\_\_\_\_.  
a) sugarcane    b) rice    c) cow pea    d) maize
94. World 'No Tobacco Day' is observed on  
a) May 31    b) June 6    c) April 22    d) October 2
95. Where does alcohol effect immediately after drinking?  
a) Eyes    b) Auditory region  
c) Liver    d) Central nervous system
96. A renewable source of energy is  
a) petroleum    b) coal    c) nuclear fuel    d) trees
97. Global warming will cause  
a) raise in level of oceans    b) melting of glaciers  
c) sinking of islands    d) all of these
98. Which is used to build scripts?  
a) Script area    b) Block palette    c) stage    d) sprite
99. Which software is used to create animation ?  
a) Paint    b) PDF    c) MS Word    d) Scratch
100. All files are stored in the \_\_\_\_\_.  
a) Folder    b) Box    c) Paint    d) Scanner

\*\*\*\*\*