

(Std.7-STSE--1--)

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**ISO 9001-2008 Certified**

**SCIENCE TALENT SEARCH EXAMINATION**

**SAMPLE PAPER**



**CLASS - VII**

**Please fill the following details immediately**

**Name:** \_\_\_\_\_

**Hall Ticket No.:** \_\_\_\_\_

**❖ 100 Questions ❖**

**❖ Time Allowed : 120 Minutes ❖**

- ❖ Do not open this question paper until the signal is given.**
- ❖ Please check the CLASS printed on the cover page and the inside is same when you open the booklet.**

## **General Instructions:**

- 1) All questions are compulsory and carry equal marks.
- 2) There is no negative marking.
- 3) There is only one correct answer hence write one choice only.
- 4) Please avoid cutting/overwriting etc.
- 5) Return the answer sheet to the invigilator at the end of the examination.
- 6) The question paper can be retained by the student.

## PHYSICS [30]

- 1) The CGS unit for energy is  
a) Dyne      b) Erg      c) Centimetre      d) Joule
- 2) The difference between lower fixed point and upper fixed point is divided into \_\_\_\_\_ parts on a Celsius scale.  
a) 100      b) 273      c) 180      d) 50
- 3) Conduction cannot take place in  
a) copper      b) iron      c) aluminium      d) vacuum
- 4) The glow worm produces light energy from  
a) potential energy      b) nuclear fusion  
c) electrical energy      d) chemical energy
- 5) Plane mirrors are arranged at an angle to get a number of coloured images in:  
a) Periscope      b) Kaleidoscope  
c) Telescope      d) Thermoscope
- 6) Which of the following relations is correct?  
a) Distance =  $\frac{\text{Speed}}{\text{Time}}$       b) Distance =  $\frac{\text{Time}}{\text{Speed}}$   
c) Distance = Speed X Time      d) Distance =  $\frac{1}{\text{Speed} \times \text{Time}}$
- 7) We can create enlarged , virtual images with  
a) convex mirrors      b) concave mirror  
c) plane mirrors      d) concave lens
- 8) Human body temperature is normally:  
a) 32°F      b) 212° F  
c) 100.4° F      d) 98.6° F
- 9) Heat from the sun reaches us by the process of \_\_\_\_\_  
a) Conduction      b) Convection  
c) Radiation      d) Transmission
- 10) To measure the time up to one- tenth of a second, we use a \_\_\_\_\_  
a) digital clock      b) pendulum clock  
c) stop watch      d) wrist watch

- 11) 1 millennium = \_\_\_\_\_ years.  
a) 1000      b) 100      c) 10      d) 50
- 12) The amount of light coming from a bulb is measured in  
a) Volt      b) Joule      c) Watt      d) Ampere
- 13) Primary colours are \_\_\_\_\_  
a) red, blue, yellow      b) red, yellow, magenta  
c) red, blue, green      d) red, blue, magenta
- 14) Which instrument is used to study the behaviour of vibrating strings?  
a) Sonometer      b) Spherometer  
c) Ammeter      d) Fathometer
- 15) What is the unit of frequency?  
a) Ampere      b) Hertz      c) Coulomb      d) Weber
- 16) R C D is  
a) Regular Current Device      b) Residual Current Device  
c) Reflected Current Device      d) Removed Current Device
- 17) Cyclone are known in china by the name  
a) hurricanes      b) typhoons  
c) tropical cyclone      d) tsunami
- 18) Electric bulbs are filled with the gas, \_\_\_\_\_  
a) helium      b) neon      c) argon      d) xenon
- 19) Contact lenses are made of  
a) silicon hydro gel      b) silicon gel  
c) calcium hydro gel      d) calcium gel
- 20) Which of these does not have a lens?  
a) Eye      b) Telescope      c) Spectacles      d) Prism
- 21) The height of a place above the sea level is called  
a) elevation      b) latitude  
c) altitude      d) leeward side
- 22) The S.I unit of temperature is  
a) Farenheit      b) Celsius  
c) Kelvin      d) Joule

- 23) A dentist uses a \_\_\_\_\_ to see the magnified image of teeth  
a) concave mirror                      b) concave mirror  
c) concave lens                         d) convex mirrors
- 24) Which of the following does not have a filament?  
a) Electric iron                         b) Geyser  
c) Bulb                                      d) Doorbell
- 25) A horseshoe magnet is \_\_\_\_\_ shaped.  
a) M                      b) V                      c) U                      d) L
- 26) Which colour has the largest wavelength?  
a) Red                      b) blue                      c) green                      d) violet
- 27) Who is known as the Father of Physics?  
a) Sir Issac Newton                      b) Thomas Alva Edison  
c) Rutherford                              d) Grigar Mendal
- 28) The SI unit of pressure is  
a) Newton                                  b) Pascal  
c) Square metre                          d) Celsius
- 29) The density of water is  
a) one (1)                                  b) two(2)  
c) 1.19                                      d) 1.8
- 30) Onshore cool breeze occurs due to  
a) conduction                              b) convection  
c) radiation                                 d) absorption

### **CHEMISTRY [30]**

- 31) A red and a blue litmus papers are dipped into a glass tumbler containing tomato juice. What changes do you observe?  
a) Red litmus paper turns blue  
b) Blue litmus paper turns to red  
c) Red litmus turns white  
d) Blue litmus paper remains the same

- 32) What kind of change is obtained by heating magnesium wire?
- a] Physical change                      b] Chemical change  
c] Both (a) and (b)                      d] Nuclear change
- 33) Which of the following substances react with each other to form salt and water?
- a] Dilute sodium hydroxide solution and hydrochloric acid  
b] Zinc with dilute hydrochloric acid  
c] Copper sulphate solution with dilute sulphuric acid  
d] Washing soda solution in water and dilute nitric acid
- 34) The acid present in spinach is
- a] tartaric acid                              b] malic acid  
c] oxalic acid                                d] lactic acid
- 35) Zinc + sulphuric acid  $\rightarrow$  \_\_\_\_\_ + hydrogen
- a] Zinc carbonate                              b] Zinc nitrate  
c] Zinc sulphate                                d] Zinc chloride
- 36) Bordeaux is a mixture of
- a] copper sulphate solution and lime  
b] Ferrous sulphate solution and lime  
c] Copper nitrate solution and lime  
d] Zinc sulphate solution and lime
- 37) The process of cleaning boilers with hydrochloric acid is called \_\_\_\_\_
- a] chlorination                                b] descaling  
c] denaturing                                 d] galvanization
- 38) Which among the following is used as a cheap quality cement?
- a] Zinc sulphate                                b] Magnesium hydroxide  
c] Ammonium hydroxide                      d] Calcium hydroxide
- 39) The ratio of Con: HCl and Con: HNO<sub>3</sub> in aquaregia is
- a] 2:1    b] 1:2    c] 3:1    d] 1:3
- 40) Identify the commonly used base which does not have a metal atom in its molecules.
- a] Calcium hydroxide                        b] Ammonium hydroxide  
c] Potassium hydroxide                      d] Barium hydroxide

- 41) Kalium is the Latin name of  
a] copper            b] potassium            c] gold            d] iron
- 42) The chemical formula of methane is  
a]  $C_2H_6$             b]  $CH_4$             c]  $CCl_4$             d]  $NH_3$
- 43) The valency of zinc is  
a] one            b] three            c] two            d] zero
- 44) The chemical formula of sodium carbonate is  
a]  $NaNO_3$             b]  $Na_2HCO_3$             c]  $Na_2CO_3$             d]  $Na_2SO_4$
- 45) The chemical name of Caustic soda is  
a] sodium hydroxide            b] potassium hydroxide  
c] calcium hydroxide            d] barium carbonate
- 46) Identify the balanced chemical equation.  
a]  $Mg + O_2 \rightarrow MgO$   
b]  $Zn + 2 HCl \rightarrow ZnCl_2 + H_2$   
c]  $Mg + HCl \rightarrow MgCl_2 + H_2$   
d]  $MgO + HCl \rightarrow MgCl_2 + H_2O$
- 47) Which one is not a property of an acid?  
a] Acids have a sour taste  
b] Acids are good conductors of electricity  
c] Acids turn red litmus blue  
d] Acids are soluble in water
- 48) The symbol used to represent tungsten is  
a] Sn            b] W            c] Te            d] Tl
- 49) The elements having zero valency are present in which group of the modern periodic table?  
a] 16<sup>th</sup>            b] 18<sup>th</sup>            c] 1<sup>st</sup>            d] 13<sup>th</sup>
- 50) When an acid reacts with any metal bicarbonate, the gas evolved is  
a] hydrogen            b] nitrogen  
c] sulphurdioxide            d] carbondioxide
- 51) Which of the following is an acidic salt?  
a]  $ZnSO_4$             b]  $Zn(NO_3)_2$   
c]  $NaCl$             d]  $NaHSO_4$

52) What is the correct order of the process listed below to purify water and make it safe for drinking.

I. Filtration

II. Sedimentation

III. Chlorination

IV. Addition of chemicals and setting

a] I,III,IV,II

b] IV, II, I, III

c] II,IV ,I ,III

d] III, I, IV ,II

53) Common name of  $H_2SO_4$  is

a] Oil of vitriol

b] Muriatic acid

c] Blue vitriol

d] Green vitriol

54) Lime water is a solution of

a]  $Ca(OH)_2$  in water

b]  $CaCl_2$  in water

c] NaOH in water

d] NaCl in water

55) Phenolphthalein is \_\_\_\_\_ in acidic medium.

a] colourless

b] pink

c] green

d] red

56) Which of the following are not paired correctly?

a] Calamine - Calcium carbonate

b] Quick lime - Calcium oxide

c] Common salt - Sodium chloride

d] Baking soda - Sodium hydrogen carbonate

57) Which of the following will rise the highest?

a] Air at  $10^\circ C$

b] Air at  $40^\circ C$

c] Air at  $20^\circ C$

d] Air at  $-5^\circ C$

58) Water is extremely stable :

a] atom

b] element

c] mixture

d] compound

59) Iron react with

a] normal water

b] hot water

c] steam

d] cold water

60) To lower the freezing point of water, \_\_\_\_\_ is added.

a] Salt

b] Sand

c] Sugar

d] Saw dust



## BIOLOGY [30]

- 61) Which metal is present in chlorophyll?  
a) Magnesium                      b) Calcium  
c) Phosphorus                      d) Aluminium
- 62) The process of elimination of undigested solid parts of the food is known as  
a) ingestion                              b) absorption  
c) egestion                              d) assimilation
- 63) Sore throat is caused due to the infection of ;  
a) Anthrax                              b) Plasmodium  
c) Anopheles mosquito              d) Salmonella typhi
- 64) Animals that feed on the blood of vertebrate animals are called  
a) Frunivores                              b) Sanguinivores  
c) Dectrivores                              d) Omnivores
- 65) The instrument that is used to measure the lung volume is called \_\_\_\_\_ .  
a) Lactometer                              b) Barometer  
c) Spirometer                              d) Hygrometer
- 66) The branch of biology that deals with the formation , structure and function of cell is known as \_\_\_\_\_ .  
a) Entomology                              b) Cytology  
c) Palynology                              d) Ecology
- 67) \_\_\_\_\_ is a spore producing plant  
a) Rose                      b) Potato                      c) Bread mould              d) Ginger
- 68) Saprozoic nutrition is found in  
a) Millipedes              b) Deer                      c) Mosquito              d) Louse
- 69) The process of obtaining silk fibre from cocoons is called  
a) Shearing              b) Sericulture              c) Spinning              d) Filature
- 70) Adjustment to environment is called  
a) Adaptation              b) Mimicry              c) Hibernation              d) Aestivation



- 82) Identify the animal that contains chlorophyll in the body  
a) Octopus      b) Amoeba      c) Euglena      d) Starfish
- 83) Regolith is the layer  
a) Beneath the B horizon and above the R horizon  
b) Beneath the C horizon and above the B horizon  
c) Beneath the R horizon  
d) Beneath the A horizon and above the B horizon
- 84) Which is not a part of the small intestine?  
a) Duodenum      b) Jejunum      c) Ileum      d) Rectum
- 85) The silk is a continuous filament fiber consisting of a protein called  
a) Fibroin      b) Sericin      c) Keratin      d) Pepsin
- 86) Identify the mineral essential for synthesis of thyroid hormone  
a) Sodium      b) Iodine      c) Potassium      d) Calcium
- 87) Amino acids are the end products of digestion of  
a) Carbohydrates      b) Fats      c) Proteins      d) Minerals
- 88) Which vitamin is called phyloquinone?  
a) Vitamin C      b) Vitamin K      c) Vitamin E      d) Vitamin D
- 89) The function of haemoglobin is to transport  
a) water      b) food      c) wastes      d) oxygen
- 90) Insulin regulates  
a) male sexual characteristic  
b) female sexual characteristic  
c) amount of sugar in the body  
d) rate of neural transmission

### GENERAL KNOWLEDGE [10]

- 91) The author of the book "Freedom in Exile" is  
a) Dalai Lama      b) Lenin  
c) Panchan Lama      d) Keats

- 92) The most important Article of Indian Constitution is :  
a] Article 32                      b] Article 17  
c] Article 13                      d] Article 42
- 93) National Science Day is celebrated on  
a] November 28<sup>th</sup>                  b] February 28<sup>th</sup>  
c] August 24<sup>th</sup>                      d] June 27<sup>th</sup>
- 94) The highest peak in Western Ghats is  
a] Nilgiri                              b] Agastya Malai  
c] Anamudi                          d] Mahendra Giri
- 95) Name the colour obtained when red and yellow is mixed together.  
a] Orange                      b] Pink                      c] Green                      d] Purple
- 96) What is the capital of Greece?  
a] Athens                      b] Tripoli                      c] Lappose                      d] Kabul
- 97) The international symbol of the awareness of which disease is the gray ribbon?  
a] AIDS                              b] Hepatitis  
c] Diabetics                          d] Cancer
- 98) Chaitanyabhumi , the resting place of Dr.B.R.Ambedkar is situated in which city?  
a] Delhi                      b] Mumbai                      c] Bangaluru                      d] Kolkatta
- 99) What is the currency of Egypt?  
a] Pound                      b] Yen                      c] Ruble                      d] Lira
- 100) Who created the comic characters Mickey Mouse & Donald Duck?  
a] Roy Disney                              b] Warner Brothers  
b] Rupert Murdoch                          d] Walt Disney