

V9S

Virudhunagar District Common Examinations  
Common Annual Examination - 2023

## Standard 9

## SCIENCE

## PART - I

Time: 2.30 Hours

MARKS: 75

$$12 \times 1 = 12$$

**Answer all the questions:**

- 1) Clouds float in atmosphere because of their low .....  
 a) density      b) pressure      c) velocity      d) mass
- 2) Electroplating is an example for .....  
 a) heating effect      b) chemical effect  
 c) flowing effect      d) magnetic effect
- 3) The sound waves travel faster .....  
 a) in liquids      b) in gases      c) in solids      d) in vacuum
- 4) Ceres is a .....  
 a) Meteor      b) Star      c) Planet      d) Astroid
- 5) Elements in the modern periodic table are arranged in ..... groups and ..... periods.  
 a) 7, 18      b) 18, 7      c) 17, 8      d) 8, 17
- 6) Number of valence electrons in carbon is .....  
 a) 2      b) 4      c) 3      d) 5
- 7) A phenomenon in which an element exists in different modification in same physical state is called  
 a) Isomerism      b) Allotropy      c) Catenation      d) Crystallinity
- 8) One Nanometre is .....  
 a)  $10^{-7}$  metre      b)  $10^{-8}$  metre      c)  $10^{-6}$  metre      d)  $10^{-9}$  metre
- 9) Transpiration takes place through .....  
 a) fruit      b) seed      c) flower      d) stomata
- 10) The structural and functional unit of the kidney is .....  
 a) villi      b) liver      c) nephron      d) liver
- 11) Which of the following is transmitted through air?  
 a) Tuberculosis      b) Meningitis      c) Typhoid      d) cholera
- 12) The symbiotic association of fungi and vascular plants is  
 a) Lichen      b) Rhizobium      c) Mycorrhizae      d) Azotobacter

## PART - II

**Answer any 7 of the following: Q.No. 22 compulsory.**

$$7 \times 2 = 14$$

- 13) Why it is easy to swim in river water than in sea water?
- 14) State Fleming's Left Hand Rule?
- 15) Fill in the blanks:

- a) The Mirror used in search light is .....
- b) The Radius of curvature of Concave mirror whose focal length is 5cm is .....

- 16) What is meant by Supersonic speed?
- 17) Define Sublimation?

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18) What are the uses of 'Plaster of paris'?

19) What is nematocyst?

20) Match it:

Skin

- Urine

Lungs

- Sweat

Intestine

- Carbon dioxide

Kidneys

- Undigested food

21) What is an adulterant?

22) Calculate the amount of charge that would flow in 2 hours through an element of an electric bulb drawing a current of 2.5 A.

**PART - III** $7 \times 4 = 28$ **Answer any 7 questions: Q.No. 32 is compulsory.**

23) Explain different types of Motion?

24) What are the changes of state in water? Explain.

25) Explain Tyndall effect and Brownian movement with suitable diagram?

26) a) Give example for liquid metal *(mercury)*

b) What are metalloids?

c) Match it:

Alkali metals

Newlands

Law of octaves

Calcium

Alkaline earth metal

Henry Moseley

Modern Periodic Law

Sodium

27) a) Write all possible isomers of  $C_2H_6O$ .

b) Why are one-time use and throwaway plastics harmful?

28) List four characteristic features of fishes? -

29) How will you differentiate the different types of transpiration?

30) Describe the alimentary canal of man?

31) List the medicinal importance of honey?

32) a) Differentiate mass and weight

b) Find the mass of an object weighing 98N.

**PART - IV** $3 \times 7 = 21$ **Answer all the questions. Draw diagrams wherever necessary.**

33) Explain the construction and working of a hydrometer with diagram.

(OR)

Explain the principle, construction and working of a dc motor?

Explain the postulates of Bohr's atomic model.

34) a) Explain the postulates of Bohr's atomic model?

b) What are Isotopes?

(OR)

a) Define aqua regia.

b) Sulphuric acid is called king of chemicals. Why is it called so?

c) Write any four uses of bases.

35) a) Write about elements of xylem.

(OR)

a) What are the uses of recycled water?

b) What is IUCN?

c) How does a bat adapt itself to its habitat?

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