V9S

### Virudhunagar District
### Common Quarterly Examination - September 2024

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## Standard 9
## SCIENCE

Time: 3.00 Hrs.                                                                                    Marks: 75

**I.   Choose the correct answer:**                                                          12×1=12

1) 1 metric ton is equal to _____.

   a) 100 quintals      b) 10 quintals       c) 1/10 quintals    d) 1/100 quintals

2) The centrifugal force is

   a) a real force       b) the force of reaction of centripetal force

   c) a virtual force    d) directed towards the centre of the circular path

3) Clouds float in atmosphere because of their law

   a) density          b) pressure          c) velocity          d) mass

4) The separation of denser particles from lighter particles done by rotation at high speed is called _____.

   a) filteration          b) sedimentation     c) decantation      d) centrifugation

5) _____ has the same properties throughout the sample.

   a) Pure substance  b) Mixture           c) Colloid           d) Suspension

6) The term nuclions refer to

   a) protons and electrons                  b) only neutrons

   c) electrons and neutrons                 d) protons and neutrons

7) Elements in the modern periodic table are arranged in _____ groups and _____ periods.

   a) 7, 18            b) 18, 7             c) 17, 8             d) 8, 17

8) Find the group having only marine members.

   a) Mollusca         b) Coelenterata      c) Echinodermata    d) Porifera

9) The animal without skull is

   a) acrania          b) acephalia         c) apteria           d) acoelomate

10) The tissue composed of living thin walled polyhedral cell is

   a) Parenchyma       b) Collenchyma       c) Scelerenchyma    d) None of above

11) Aerenchyma is found in

   a) epiphytes        b) hydrophytes       c) halophytes        d) xerophytes

12) The tropic movement that helps the climping vines to find a suitable support is _____.

   a) phototropism     b) geotropism        c) thigmotropism     d) chimotropism

**II.  Answer very briefly: [Write any seven only]**                                          7×2=14
     **[Question No. 15 is compulsory]**

13) Differentiate Mass and Weight.

14) On what factors the pressure exerted by the liquid depends on?

15) A block of wood of weight 200g floats on the surface of water. If the volume of block is 300 cm$^3$, calculate the upthrust due to water.

16) A few drops of Dettol when added to water the mixture turns turbid. Why?

17) What is the same about the electron structure of

   a) Lithium, Sodium and Pottassium

   b) Berillium, Magnesium and Calcium

18) State modern periodic law.

19) What is nemotocyst?

20) List the characteristic features of fishes.

21) What is complex tissue? Name the various kinds of complex tissues.

22) Differentiate phototropism from photonasty.

## III. Answer in detail: [Answer any seven only]      7×4=28
## [Question No. 32 is compulsory]

23) How will you find the thickness of a one rupee coin?

24) **Differentiate:**
   a) Distance and Displacement
   b) Speed and Velocity

25) With an appropriate illustration prove that the force acting on a smaller area excerts a greater pressure.

26) Write the differences between elements and compounds and give an example for each.

27) What conclusions were made from the observations of gold foil experiment?

28) What are the limitations of Mandaleev's periodic table?

29) Give an account on Phylum Annelida.

30) Suppose you have a rose plant growing in a pot, how will you demonstrate transpiration in it?

31) Mention differences between stomatal and lenticular transpiration.

32) Calculate the number of neutrons in the following atoms.
   (a) $_{13}Al^{27}$    (b) $_{15}P^{31}$    (c) $_{76}OS^{190}$    (d) $_{24}Cr^{54}$

## IV. Answer in detail:      3×7=21

33) Explain different types of motion.

**(OR)**

Describe the construction and working of Mercury barometer.

34) Explain Tyndall effect and Brownian movement with suitable diagram.

**(OR)**

Explain the postulates of Bohr's atomic model.

35) Give an account on Phylum Arthropoda.

**(OR)**

List out the differences between mitosis and meiosis.

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