



**RJ VISION PVT. LTD.**  
(MOST STABLE & INNOVATIVE INSTITUTE)

# PFC

## STD – 9<sup>TH</sup> (CBSE)

# SCIENCE

# TEST

## CT - 11S

Course Name : Samarth (9<sup>th</sup>)

Date : 19<sup>th</sup> February 2018

**General Instructions :**

**[Marks : 80] [Time : 3 hrs.]**

- I. The question paper comprises of two sections, A and B. You are to attempt both the sections.
- II. All questions are compulsory. However, an internal choice will be provided in two questions of 3 marks each and one question of five marks.
- III. All questions of section A and all questions of section B are to be attempted separately.
- IV. Questions **1 to 2 in section A are one mark questions**. These are to be answered in one word or one sentence.
- V. Questions **3 to 5 in section A is a two marks questions**. This are to be answered in about 30 words each.
- VI. Questions **6 to 15 in section A are three marks questions**. These are to be answered in about 50 words each.
- VII. Questions **16 to 21 in section A are five marks questions**. These are to be answered in about 70 words each.
- VIII. Questions **22 to 27 in section B are two marks questions** based on practical skills. These are to be answered in brief.

**SECTION – A**

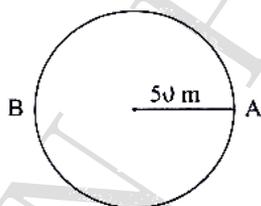
1. Convert the following into Celsius scale: 300 K and 573 K.
  2. An organism does not have a well defined nucleus and organelles. State its kingdom.
  3. Name the compounds whose formulae are given below:
    - (a)  $\text{Ca(OH)}_2$
    - (b)  $\text{KMnO}_4$
  4. Differentiate between infectious and non-infectious diseases.
  5. Calculate the number of moles present in 60 gm of calcium.
  6. State the law of constant proportion. Illustrate it with examples.
  7. What is ultrasound? Give two uses of ultrasound.
  8.
    - (a) Define atomic mass unit
    - (b) Write the chemical formulae for potassium oxide and ammonium chloride.
  9. A man is suffering from AIDS.
    - (a) What is the cause of AIDS and give its full form.
    - (b) Write two ways by which this disease gets transmitted.
    - (c) State any one precaution for prevention for prevention of AIDS.
- OR**
- Define the term “symbiosis”. Name a symbiotic life forms. Name the place where these life forms are found.
10. Distinguish between density and relative density of a substance. The relative density of silver is 10.8. If the density of water is  $10^3 \text{ Kg/m}^3$  find the density of silver.
  11. Differentiate between radial symmetry and bilateral symmetry. Give one example of organism having this symmetry for each.

12. (a) State Archimedes principle.  
 (b) State the laws of floatation.  
 (c) Why is it easier to swim in sea water than in river water?

OR

State Pascal's law for pressure. Why tip of pin sharp but the head is broad? How camels walk easily in desert soil.

13. Explain the Rutherford's model of atom. Write his three observations and conclusions made by alpha particle splitting experiment.
14. Calculate the atomic mass of chlorine if it exists commonly in the form of two isotope. Cl mass number 35 – 75%, Cl mass number 37 – 25%. Name two isotopes which can cure diseases.
15. What are the different means by which infectious diseases are spread?
16. (a) Explain the various factors on which the rate of evaporation depends, giving example.  
 (b) Explain how the high compressibility of gases is useful.
17. How can you separate the following mixture:  
 (a) Sand + iron  
 (b) Cream from milk  
 (c) Salt + water  
 (d) Ammonium chloride + NaCl
18. (a) What is uniform circular motion?  
 (b) An athlete runs on a circular track, whose radius is 50 m with a constant speed. It takes 50 seconds to reach point B from starting point A. Find



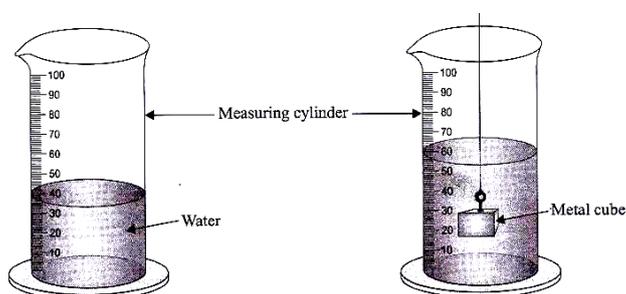
- (i) the distance covered  
 (ii) the displacement  
 (iii) the speed
19. (a) Describe an activity to obtain crystals of copper sulphate from its solution.  
 (b) Draw a flow chart to show the water purification system. Why is chlorination of water important?
20. What is a disease? How do you know if a person has got disease? List various causes for the disease.
21. Explain the physical, chemical and biological factors which lead to the formation of soil.

OR

Explain nitrogen-cycle in nature and define all the terms involved in it.

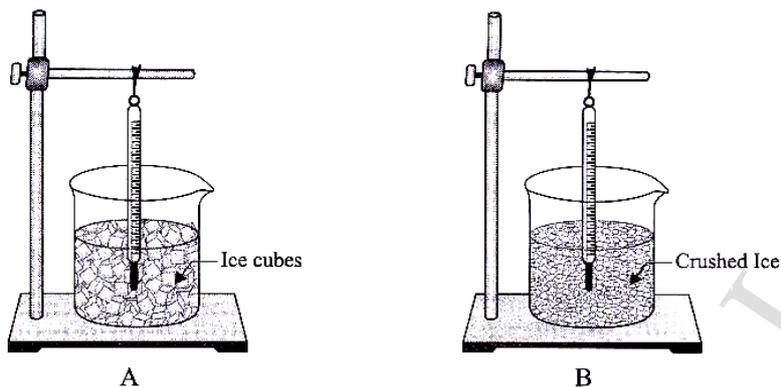
### SECTION – B

22. The water level in a measuring cylinder, before and after immersing a metal cube in it, is shown in the figure. Calculate the volume of the metal cube.



23. What would happen when zinc granules are added to dilute sulphuric acid in a test tube? Record any two observations.

24. Which experimental set-up is correct for determining the melting point of ice? Why?



25. You can bite fruits like guava, grapes, banana etc., but not a piece of wood. Why?

26. Why does brass react with dilute hydrochloric acid and is corroded in rainy season to form  $\text{CuCO}_3 \cdot \text{Cu(OH)}_2$ ?

27. State the life span of each stage of mosquito?