

ST ARNOLD'S CENTRAL SCHOOL, PUNE
PERIODIC TEST - 3, 2018-19
SUBJECT: SCIENCE

STD : IX

MM : 50

General Instructions:

- (i) The question paper comprises of five sections – A, B, C, D and E. You are to attempt all the sections.
- (ii) All questions are compulsory.
- (iii) Internal choice is given in sections B, C, D and E.
- (iv) Question numbers 1 Section-A are one mark questions. They are to be answered in one word or in one sentence.
- (v) Question numbers 2 to 7 in Section- B are two marks questions. These are to be answered in about 30 words each.
- (vi) Question numbers 8 to 13 in Section-C are three marks questions. These are to be answered in about 50 words each.
- (vii) Question numbers 14 to 16 in Section-D are 5 marks questions. These are to be answered in about 70 words each.
- (viii) Question numbers 17 to 18 in Section- E are based on practical skills. Each question is a two marks question. These are to be answered in brief.

SECTION A

1. Name the Protozoa that cause (a) Sleeping sickness (b) Kala-azar. (1)

SECTION B

2. What is immunization? (2)
3. Which amongst the two diseases : acute or chronic has adverse effect on the health of a person? Explain giving a suitable example.

OR

- How does personal health relate to community health? (2)
4. Define pressure. Write its SI unit. How does it relate to thrust acting on the object.

OR

- Why does block of plastic released under water come up to the surface of water ? (2)
5. What is the weight in Newton of 10 kg object on the moon and on the earth
(Take $g = 9.8 \text{ m/s}^2$) (2)

6. Which has more number of atoms, 100 gms of Na or 100gms of Fe?

(Given atomic mass of Na= 23u, Fe=56u)

(2)

7. If the valency of hydrogen is 1 and that of nitrogen is 3, work out the formula for ammonia.

OR

Work out the formula for aluminium oxide.(Charge: Al=3+, O=2).

(2)

SECTION C

8. What causes Japanese encephalitis? Which organ is affected? How it can be prevented?

OR

What precautions will you take to justify "prevention is better than cure".

(3)

9. Aparna, a class IX student was asked to submit a project report on mosquito transmitted diseases in school. She visited a nearby hospital where her aunt was a nurse. Her aunt took her to a patient suffering from malaria. Aparna talked to the patient and asked him about symptoms. Read the above passage and answer the following questions

a) Name the causative organism and the vector of the disease.

b) Name the two other symptoms, which may have been told by the patient.

c) Identify two important values as shown by Aparna.

(3)

10. List 3 differences between mass and weight

OR

List 3 differences between 'g' and 'G'.

(3)

11. A stone is dropped from a height of 10 m on an unknown planet having $g = 20 \text{ m/s}^2$.

Calculate the speed of the stone when it hits the surface of the planet. Also calculate

the time it takes to fall through this height.

(3)

12. Calculate formula unit masses of:

a) ZnO ✕

b) Na_2O

(Given atomic masses of Zn=65u, O=16u, Na=23u)

(3)

13. a) How many atoms are there in exactly 12g of Carbon-12 element.(C=12u)?
b) What name is given to this number?
c) What name is given to the amount of substance containing this number of atoms?

OR

- a) What is meant by the term chemical formula?
b) Write down the formulae of magnesium hydroxide.
c) Write down the name of the following compound K_2SO_4 (3)

SECTION D

14. a) Doctors diagnosed that Radha was suffering from HIV-AIDS. List any two methods by which she might have come in contact the disease. Name the tissue affected by this disease.
b) Why antibiotics cannot be used for its treatment? Justify your answer.

OR

- a) Define 'disease'. Name two groups of diseases.
b) Becoming exposed to or infected with an infectious microbe does not necessarily mean developing noticeable disease. Explain. (5)
15. Earth revolves around the Sun due to gravity.
a) Why does the earth not move towards the Sun?
b) State and derive the formula for gravitational force of attraction of two bodies in the universe. Write the value of 'G'.

OR

- a) What is lactometer and hydrometer used for ?
b) Camels can walk easily on desert sand, but we are not comfortable walking on the desert sand. State the reasons.

c) In which direction does the buoyant force on an object immersed in a liquid act? (5)

16. a) Explain laws of chemical combination.

b) Describe an experiment to verify law of conservation of mass.

OR

a) State any 3 postulates of Dalton's atomic theory.

b) When 10g of calcium carbonate is decomposed completely then 5.6 g of calcium oxide is formed. Calculate the mass of CO_2 formed. (5)

SECTION E

17. The relative density of gold is 19.3, the density of water is 10^3 kg/m^3 . What is the density of gold?

OR

Discuss what happens when an iron nail and piece of cork is placed on the surface of water? (2)

18. a) What happens when Zn granules react with dil. H_2SO_4 ?

b) How will you test the gas evolved in the reaction between Zn and dil. H_2SO_4 ?

OR

a) Name the type of reaction when Zinc granules react with dilute Hydrochloric acid.

b) What do you observe in the reaction? (2)