ATOMIC ENERGY CENTRAL SCHOOL NO 3 RAWATBHATA
PT - III (2018-19)

CLASS – IX   MM-40

SUB- SCIENCE   TIME – $1\frac{1}{2}$ Hrs

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CHEMISTRY

1. Write the chemical formula of Sodium carbonate.   1
2. What is sublimation? Name two substances that can undergo sublimation.   2
3. Write two differences between true solutions and colloids.   2
4. Verify by calculation that 5 moles of CO_2 and 5 moles of H_2O do not have same mass.   3
5. a) Calculate the molecular mass of Glucose $C_6H_{12}O_6$ (c=12, H=1,O=16)   5
b) What are polyatomic ions? Give two examples of polyatomic ion.
c) What was the drawback of Rutherford's atomic model?
d) Name the negatively charged particle of an atom and write the absolute charge present on it.

BIOLOGY

1. What will happen when Rheo leaves are boiled in water first and then a drop of sugar solution is poured on it?   1
2. Write any two modes by which insects affect the crop yield.   2
3. Draw a neat diagram of a neuron and label the following: 3
   i) the part that receives impulses
   ii) the part that carries the impulses away from the cell body
4. Explain the significance of the following: 3
a) Hair like structure on epidermal cells.
b) epidermis has a thick waxy coating of cutin in desert plants.
c) presence of suberin in cork cells.
5. a) Identify the following organisms :class/group/phylum   5
i) pores all over the body and have water canal system
ii) warm blooded animals with exoskeleton of hair.
b) Write two characteristic features of chordates.
c) Name one parasitic annelid.

PHYSICS

Q1 Define uniform motion and give one example for the same.   (1)

Q2 While catching a fast moving ball, fielder gradually pulls his hand backwards. Give reason   (2)

Q3 A man throws a ball   vertically upwards with a velocity of 20 m/s. After how much time will the ball come back to his hands?   (2)

Q4   State Archimede's Principle. Write its two applications.   (3)

Q5 (i) Define kinetic energy and give its SI unit.   (5)

   (ii) Define power and give its SI unit.

   (iii) A body of mass 2kg is thrown up at a velocity of 10m/s,find the kinetic energy of the body

      at the time of throw.Also find the potential energy of the body at the highest point.