

**PRINCE PUBLIC SCHOOL**  
**HALF YEARLY EXAMINATION (2019-20)**  
**SCIENCE**  
**SAMPLE PAPER-2**  
**X**

**TIME ALLOWED: 3 HOURS**

**MAXIMUM MARKS: 80**

**General Instructions**

1. There are 36 questions in total. This question paper comprises of four sections A, B C and D. You have to attempt all the sections.
2. Question number 1 to 10 in section A are 1 mark questions.
3. Question number 11 to 20 in section B are also 1 mark questions. These are to be answered in one word or in one sentence.
4. Question number 21 to 30 in section C are 3 marks questions. These are to be answered in about 50 words each.
5. Question number 31 to 36 in section D are 5 marks questions. These are to be answered in about 70 words each.

**SECTION-A**

- Q1.** In a reaction,  $2AgI(s) \rightarrow 2Ag + I_2(g)$ , the colour of iodine is \_\_\_\_\_.
- a) black                                      b) green                                      c) purple                                      d) white
- Q2.** \_\_\_\_\_ is not an acidic salt.
- a) Copper sulphate                      b) Ammonium chloride                      c) Ferric chloride                      d) Sodium acetate
- Q3.** Many salts absorb water from atmosphere. This property is called \_\_\_\_\_.
- a) deliquescence                      b) efflorescence                      c) hydration                      d) addition
- Q4.** Egg shell is made up of \_\_\_\_\_.
- a) calcium carbonate                      b) calcium hydroxide                      c) calcium chloride                      d) calcium oxide
- Q5.** Cinnabar is an ore of \_\_\_\_\_.
- a) mercury                      b) calcium                      c) aluminium                      d) copper
- Q6.** Ionic bond are formed by the \_\_\_\_\_ of electrons.
- a) transfer                      b) sharing                      c) lone pair                      d) bond pair
- Q7.** The filtration units of kidneys are called \_\_\_\_\_.
- a) ureter                      b) urethra                      c) neurons                      d) nephrons
- Q8.** \_\_\_\_\_ is the part of alimentary canal that receives bile from the liver.
- a) Stomach                      b) Small intestine                      c) Large intestine                      d) Oesophagus
- Q10.** Blood pressure is measured by an instrument called \_\_\_\_\_.
- a) Barometer                      b) Sphygmomanometer                      c) Photometer                      d) Manometer
- Q11.** The \_\_\_\_\_ is where the respiratory and digestive passages come together.
- Q12.** Name a device that helps to maintain a potential difference across a conductor.
- Q13.** Chemicals which are released in the synaptic junction are called \_\_\_\_\_.
- Q14.** Two resistors are in parallel when they have \_\_\_\_\_ common points.
- Q15.** What do you understand by direct current?
- Q16.** Define magnetic field lines.
- Q17.** Give any one example of olfactory indicator.
- Q18.** In a reaction,  $H_2 + O_2 \rightarrow H_2O$ , \_\_\_\_\_ will be the oxidizing agent.
- Q19.** Write the chemical formula of bleaching powder.
- Q20.** What are platelets?
- Q21.** What is meant by ocean thermal energy? Explain how ocean thermal energy can be used to generate electricity.
- Q22.** In the electrolytic refining of a metal M, what would you take as the anode, the cathode and the electrolyte?
- Q23.** State the relation between work, charge and potential difference for an electrical circuit.

- Q24. a)** Write name of four nuclear power reactors located in India.  
**b)** State any three reasons to justify that LPG is considered an idea fuel.
- Q25.** State the various advantages and applications of electromagnet.
- Q26.** Nichrome is used to make the element of electric heater. Why?
- Q27.** What are the strategies of plants to get rid of their wastes?
- Q28. a)** What is ATP? What is its use?  
**b)** Describe circulatory system in a fish.
- Q29.** Give the method of preparation of bleaching powder. Mention its chemical equation also.
- Q30.** State the functions of any three of the structural and functional unit of nervous system.
- Q31.** Describe the extraction of mercury metal from its ore cinnabar.
- Q32. a)** What is a neutralization reaction? Explain with examples.  
**b)** Give two important used of washing soda and baking soda.  
**c)** Plaster of paris should be stored in a moisture proof container. Explain why.
- Q33.** What are the advantages and disadvantages of using a solar cooker?
- Q34.** A piece of wire having a resistance R is cut into five equal parts.  
**a)** How will the resistance of each part of the wire compare with the original resistance?  
**b)** If the five parts of the wire are placed in parallel, how will the resistance of the combination compare with the resistance of the original wire? What will be ratio of resistance in series to that of parallel?
- Q35. a)** Give the functions of cerebellum (any two).  
**b)** Differentiate between sensory neurons and motor neurons.
- Q36. a)** What is the effect of concentration of hydrogen ions  $(_{aq})$  ions on the nature of a solution?  
**b)** Why does aqueous solution of sodium chloride can easily conducts electricity whereas solid sodium chloride doesn't?  
**c)** Someone put some universal indicator paper into vinegar. The pH is 3. What does this tell you about the vinegar?  
**d)** Which chemical is injected into the skin of a person,  
**i)** through an ant's sting?  
**ii)** through the nettle leaf hair sting?