3115

SCIENCE

19E(A)

Part-I : Physical Science

(English Version)

Time : 1 Hour 30 Mins.]　　　**PART A & B**　　　[Maximum Marks : 40

PART – A

Time : 1 Hour 15 Mins.]　　　　　　　　　　[Maximum Marks : 30

Instructions :

1. Read the question paper and understand every question thoroughly and write answers in given **1:30** min. time.

2. *3 Very Short Answer questions are there in Section-I. Each question carries 2 marks. Answer all the questions. Write answer to each question in 3 to 4 sentences.*

3. *3 Short Answer Questions are there in Section-II. Each question carries 4 marks. Answer all the questions. Write answer to each question in 5 to 6 sentences.*

4. *3 Essay Type Answer questions are there in Section-III. Each question carries 6 marks. Answer any two (2) questions. Write answer to each question in 8 to 10 sentences.*

Section – I 　　　　　　　　　　$3 \times 2 = 6$

Note : (1)　3 Very short answer questions are there in Section-I.

　　　　(2)　Answer *all* the questions. Each question carries *2* marks.

　　　　(3)　Write answer to each question in *3* to *4* sentences.

1. Write any four applications of Faraday's law of electromagnetic induction.

2. List out the materials required to verify that the resistance of the conductor depends on its length.

3. What would happen if carbon and its compounds do not undergo combustion reactions ?

Section – II 　　　　　　　　　　$3 \times 4 = 12$

Note : (1)　3 Short answer questions are there in Section-II.

　　　　(2)　Answer *all* the questions. Each question carries *4* marks.

　　　　(3)　Write answer to each question in *5* to *6* sentences.

4. Write the chemical equation for the reaction between zinc and dil. Hydrochloric acid and balance the equation.

5. Write the uses of washing soda (Sodium Carbonate) in day to day life.

19E(A) ‖‖‖‖‖‖‖‖　　　　　　　　　　　　　**P.T.O.**

6. Observe the following table and answer the given questions :

Element	Electronic Configuration
P	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$
Q	$1s^2 2s^2 2p^6 3s^2$
R	$1s^2 2s^2 2p^6 3s^2 3p^6$
S	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^1 3d^5$

(i) What is the valence of the element 'Q' ?

(ii) Which of the above element belongs to 18th group ?

(iii) Which of the above element belongs to IA group and 4th period ?

(iv) What is the position of the element 'S' in the periodic table ?

<div align="center">

Section – III $2 \times 6 = 12$

</div>

Note : (1) *3 Essay type questions are there in Section-III.*

(2) *Answer any two questions. Each question carries 6 marks.*

(3) *Write answer to each question in 8 to 10 sentences.*

7. Explain common defects of vision of human eye and write the correction of it.

8. List out the materials required to the experiment of air and water are essential for the rusting of articles like iron metal. Write the experimental procedure.

9. Draw the ray diagram showing the image formed when the object is placed at beyond 'C' on the principal axis of a concave mirror and mention the characteristics of the image.