

--	--	--	--	--	--

Roll No.

Date:

NORTHWEST ACCREDITATION COMMISSION, USA

GRADE 10TH (Secondary)

Subject- Science

Subject Code – S203

Question Paper No. :

Question Paper code:

Important Instructions

1. OPENING AND CHECKING OF THE QUESTION-BOOKLET

Break open the seal of the Question-Booklet only when the announcement is made by the Invigilator. After breaking the seal and before attempting the questions, student should immediately check for:

- a) The number of the printed page in the Question-Booklet is the same as mentioned on the cover page of the Booklet and
- b) Any printing error in the Booklet pages, if any.

Any discrepancy or error should be brought to the notice of the Invigilator who will then replace the Booklet. No additional time will be given for this.

2. No student, without the permission of the Superintendent, or the Invigilator concerned, is to leave his/her seat or the Examination Room.

3. FILLING UP THE REQUIRED INFORMATION ON QUESTION-BOOKLET AND ANSWER SHEET

After breaking open the seal and checking the Booklet, student should:

- a) Fill up the **Question Paper No.** and **Question Paper Code** (mentioned on the cover of Question-Booklet) in the space provided on the First Answer Sheet.
- b) Fill up his/her Roll Number on the First Answer Sheet and on each Supplementary Answer Sheet, if taken.
- c) Student should mention the total number of **Supplementary Answer Sheet**, if taken, in the space provided on the First Answer Sheet and also fill up the Serial Number mentioned on each **Supplementary Answer Sheet** along with his/her Roll Number in the register maintained by the Invigilator. Student must tie all the Answer Sheets with the thread provided by the Invigilator.

4. INSTRUCTIONS ABOUT QUESTION PAPER

This Question Paper is divided into three Sections – A, B and C. All Sections are compulsory. Attempt all Sections as per instructions.

- a) Section A question No. 1 to 5 are very short questions carrying 2 marks each.
- b) Section B question No. 6 to 15 are short questions carrying 3 marks each.
- c) Section C question No. 16 to 21 are long questions carrying 5 marks each.

5. Student found in possession of Cellular Phone / Mobile Phone / Pager or any other Communication Device and/or any Book/Note whether using or not, will be liable to be debarred for taking examination(s) either

permanently or for specified period or/and dealt with as per law or/and ordinance of the School/SERI According to the nature of offence, or/and he/she may be proceeded against and shall be liable for prosecution under the relevant provision of the Statutory Law.

TIME: 3 Hours.

TOTAL MARKS: 70

THE ANSWER SHEET IS TO BE RETURNED ON COMPLETION OF THE TEST

P.T.O.

SECTION A

Total number of questions: 5	Marks allocated to each question: 2	Total marks: 10
------------------------------	-------------------------------------	-----------------

Question 1. Name two components of central nervous system in Humans.

Question 2. What is the colour of

- (a) Live wire
- (b) Neutral wire

Question 3. Name the constituents of bronze and write its two use.

Question 4. Give the characteristics tests for the following gases:

- (a) CO_2
- (b) O_2
- (c) H_2

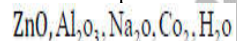
Question 5. State Faraday's law of electromagnetic induction. Express it mathematically.

SECTION B

Total number of questions: 10	Marks allocated to each question: 3	Total marks: 30
-------------------------------	-------------------------------------	-----------------

Question 6. List any three advantages of biogas as a source of energy.

Question 7. (a) What are amphoteric oxides? Select the amphoteric oxides from the following



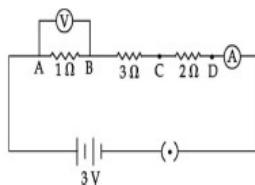
(b) Give chemical equation for the reaction of any one of the above chosen oxides with an example.

Question 8. What are the limitations of extracting energy from (i) wind, (ii) waves and (iii) tides?

Question 9. (a) State Ohm's law.

(b) Draw a schematic diagram of the circuit for studying Ohm's law.

Question 10. How would the reading of voltmeter (V) change if it is connected between B and C? Justify your answer.



Question 11. What is Baking soda chemically called? Give reaction involved in its preparation. Write one of its uses.

Question 12. What are strong acids and weak acids? Give an example for each.

Question 13. A 9Ω resistance is cut into three equal parts and connected in parallel. Find the equivalent resistance of the combination.

Question 14. What is bleaching powder chemically called? Give reaction involved in its preparation. State one of its uses.

P.T.O.

Question 15. A white coloured powder is used by the doctors for supporting fractured bones.

- (a) Write chemical name of the powder.
- (b) Write its formula.
- (c) Write chemical equation, when this white powder is mixed with water.

SECTION C

Total number of questions: 6	Marks allocated to each question: 5	Total marks: 30
------------------------------	-------------------------------------	-----------------

Question 16. With the help of a labeled diagram explain the general scheme to illustrate how nervous impulses travel in the body.

OR

Briefly describe the mechanism of urine formation.

Question 17. (a) Draw a neat labelled diagram of an AC generator.

(b) Write the use of (i) Slip rings, (ii) Brushes and (iii) Armature in an AC generator.

OR

What are magnetic field lines? List three characteristics of these lines. Describe in brief an activity to study the magnetic field lines due to a current flowing in a circular coil.

Question 18. Calculate the number of electrons passing per second through a conductor to produce a current of one ampere.
(Charge on electron = 1.6×10^{-19} coulomb)

OR

How does the butter in your food get digested and absorbed in the body? Explain in detail.

Question 19. (a) Define corrosion, what name is given to the corrosion of iron?

(b) Name the colour of coating formed on silver and copper articles, when exposed to air?

(c) List two damages caused by corrosion and suggest how corrosion can be prevented.

OR

(a) Define reflex action. State its significance.

(b) How do plants respond to external stimuli?

Question 20. Write the electronic configuration of atoms of:

- (a) Potassium (K) (b) Lithium (Li)
(c) Fluorine (F) (d) Chlorine (Cl)

Use these electronic configuration to explain why Potassium is more reactive than Lithium and Fluorine more reactive than Chlorine?

OR

Describe one method for the preparation of ethanoic acid. Give two physical properties and three uses.

P.T.O.

Question 21. How the blood groups are inherited in humans?

OR

- (i) What causes rusting of iron? Design an activity to show the conditions needed for iron nails to rust.
(ii) Why do we paint iron articles?

END OF THE QUESTION PAPER