

# DISTRICT LEVEL MID-TERM EXAMINATION

September - 2019

X Standard

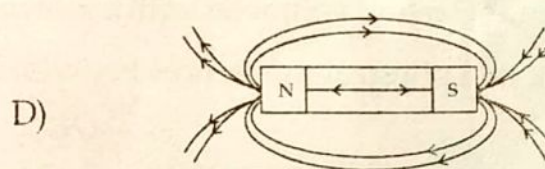
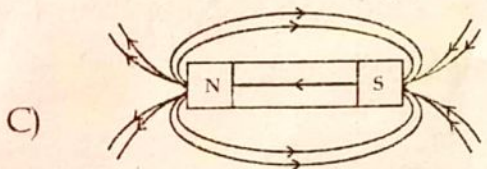
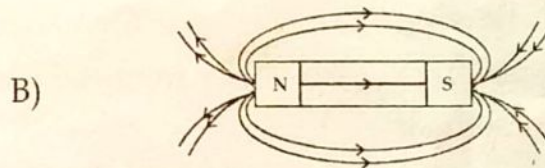
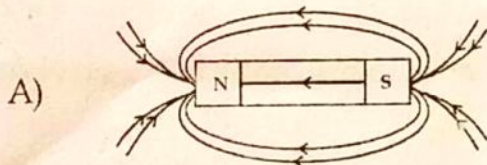
Sub : General Science

Time : 2.30 Hours

Max Marks : 80

I. Four alternatives are given for each of the following questions. Choose the correct alternative and write the complete answer along with its letter of alphabet. :  $8 \times 1 = 8$

- Copper Wire cannot be used as a fuse wire, due to
  - Copper wire will get warm
  - Copper wire has melting point quite high and it will not melt easily
  - Copper wire melts easily due to overloading
  - Copper wire has high resistance and low melting point
- The dividing wall of Right and Left Ventricles of human heart is
  - Arteries
  - Veins
  - Septum
  - Capillaries
- The Chemical compound used to soften the hard water is
  - NaCl
  - $\text{Na}_2\text{CO}_3$
  - $\text{NaHCO}_3$
  - $\text{Na}(\text{OH})_2$
- Which one of the following represent the magnetic field around a magnet.



- One pair of the following is neutral in nature.
  - $\text{CO}$  and  $\text{H}_2\text{O}$
  - $\text{CO}_2$  and  $\text{H}_2\text{O}$
  - $\text{SO}_2$  and  $\text{H}_2\text{O}$
  - $\text{SO}_3$  and  $\text{H}_2\text{O}$
- One of the following components of blood do not possess nuclei and participate in blood coagulation.
  - Plasma
  - Red blood cells
  - White blood cells
  - Blood Plateles

7. Chemical which has more number of hydrogen ions

Chemicals Substances	K	L	M	N	O	P
pH	1.5	2	7	3	5	1

A) 'K' only

B) 'P' only

C) 'O' only

D) 'M' only

8. Hormone which inhibits the Growth of Plant

A) Auxin

B) Cybokinins

C) Abscisic acid

D) Gibberllins

II. Answer the following :

8 x 1 = 8

9. The refractive index of Crown glass is 1.52 What is the meaning of this statement.

10. What is the role of Saliva in the digestion of food?

11. Show that 1 Kwh =  $3.6 \times 10^6$  Joules.

12. Voltmeter is always connected in Parallel across the points in electric circuit. Why?

13. Give the meaning of relfex action?

14. What do you mean by Rancidity?

15. Why do we apply paint on iron articles?

16. Aqueous solutions of sodium chloride, sodium sulphate and calcium chloride are taken in three separate test tubes, using aqueous barium chloride, how do you identify sodium sulphate?

III. Answer the following :

8 x 2 = 16

17. How does Nervous system differ from the endocrine system in forming control and co-ordination in animals.

18. Draw the circuit diagram to show the combination of resistors  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  in series along with ammeter and voltmeter with a source of current and mark the direction of current.

19. Mention any two physical differences between metals and non-metals.

OR

i) Ionic compounds have high melting and boiling points. Why?

ii) Mention the gaseous product released when magnesium reacts with hot water.

20. Draw the diagram of the apparatus used in electrolytic refining of copper and lable the following ports.

i) Anode

ii) Cathode.

21. How lungs of man designed to increases the space for exchange of gases.

OR

22. Draw the circuit symbols used for the following in electric circuits.
- Variable Resistance
  - A wire joint
23. Draw the diagram of the arrangement of apparatus showing the reaction of Zinc Granules with dilute sulphuric acid and testing hydrogen gas.
24. What are the methods used by plants to get rid of excretory products?

9 x 3 = 27

**IV. Answer the following :**

25. Explain the principle and rule involved in the working of a Generator, if it is produced alternating current. Write the important advantage of this type of current.

OR

Explain the working principle of a motor.

26. Explain the path ways of break down of Glucose.
27. Write the property of metals used in the following :
- In electrical transmission.
  - Bus body coaches.
  - Bells in schools.

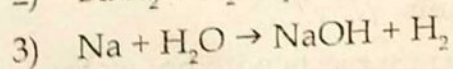
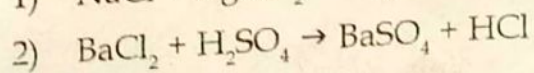
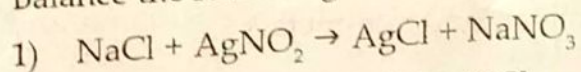
28. When Sulphuric acid is added to 1 gm solid sodium chloride taken in a test tube. Which gas released? What changes do you observe when you test the gas with dry and wet litmus paper? What is your inference from this experiment.

OR

Observe the following table and write the increasing order of their hydrocyl ion concentration. Which solution has strong acidic property? Explain what happens if our digestive system contains the  $p^H$  of solution A.

29. Explain the structure of nephron and its function in human beings.

30. Balance the following chemical reaction.



31. i) How are Involuntary action and reflex actions different from each other?  
 ii) How does phototropism occur in plants.

32. i) State the laws of Refraction of light.

- ii) If the angle of incidence is  $60^\circ$ . then find the magnatititude of angle of Reflection of light?

OR

Based on the changes taken place in Rectangular glass slab (Refraction) answer the following questions.

- i) light ray travels from Rarer to denser medium.
- ii) light ray travels from Denser to Rare medium.
- iii) Mathematical relationship between emergent ray and refracted ray.

33. Explain the three types of decomposition reaction with the help of balanced chemical equation for each.

4 x 4 = 16

**V. Answer the following :**

34. Draw the diagram showing the structure of human alimentary canal and label the following parts.

- i) Diaphragm
- ii) Stomach

35. Mention the different types of chemical equations with an example.

36. a) An electric bulb is connected to a 220V Generator. The current is 0.5A. Calculate the power of the bulb?

b) An electric refrigerator rated 400W operates 8 hours/day. What is the cost of the energy to operate it for 30 days at Rs. 3.00 per Kwh?

37) i) Write the function of forebrain, Medulla, and Cerebellum in human brain.

ii) What happens at the synapse between two newrons.

OR

i) Write the functions of Pituitary gland, thyroid gland and Adrenal gland.

ii) What is the role of the brain in reflex action?

1 x 5 = 5

**VI. Answer the following :**

38. In coil and magnet experiment (Faraday's experiment). Relative motion between magnet and coil. Influencing induced current. Write the experimental conclusion and Why Galvanometer is used instead of Ammeter. Explain.