Time allowed: **3 hours;** Maximum marks: **90**

<u>**General Instructions:**</u>
a) All Questions are compulsory
b) The Question Paper consists of 27 Questions divided in to four sections A, B, C and D
c) Section - A comprises of 3 Very Short Questions of 1 mark each
d) Section - B comprises of 3 Short Questions I of 2 marks each
e) Section - C comprises of 12 Short Questions II of 3 marks each
f) Section - D comprises of 6 Long Questions of 5 marks each

Section - A

1. What does blood consist of?
2. What is pulse?
3. How clot is formed?

Section - B

4. What do you mean by a) Real Image b) Virtual Image
5. Differentiate between autotrophs and heterotrophs.
6. What are Chemical changes?

Section - C

7. What are the indications of a chemical change?
8. Explain the process of breathing in fish?
9. Why do we feel hungry after exercises?
10. Differentiate between sexual and asexual reproduction?
11. Differentiate between Cross pollination and Self-pollination?
12. Explain the formation and uses of battery?
13. Explain the steps of processing fibers to wool.
14. List the differences between Electric motor and Electric generator?
15. What kind of images are formed by convex lenses? Give its uses.

Section - D

16. What is the nature of image formed by plane mirror then explain lateral inversion?
17. Why bacteria are used in sewage treatment plants?
18. What are the harmful effect of sewage and also suggest some alternatives methods for sewage disposal?
19. Differentiate between
    a) Breathing and respiration
    b) Exhalation and inhalation
20. Draw well labeled diagram of female reproductive system and explain it's different parts?
21. Differentiate between
    a) Arteries and Veins
    b) Atrium and Ventricles
22. Define Electromagnet and then compare it with the permanent magnet?
23. What are the properties of magnetic field lines due to current through a straight wire?
24. Draw the diagram of human respiratory system and explain its different part?