

23. What are the roles of hydrogen, ionic and disulphide bonds in the structure of proteins?
24. What is the significance of the primary, secondary, tertiary and quaternary structure of a protein?
25. What are the properties of fibrous proteins?
26. What are the properties of globular proteins?
27. How are the structures of collagen and haemoglobin related to their function?
28. What is the structure of DNA?
29. What is the difference between pyrimidines and purines?
30. How is DNA replicated?
31. How was the theory of DNA replication brought about?
32. Draw the model of semi-conservative replication including the results on the test tube?
33. What does this model assume?
34. What is the role of DNA helicase, DNA polymerase and DNA ligase?
35. What is a gene?
36. What is the structure and role of mRNA?
37. What is the structure and role of tRNA?
38. What is the nature of the genetic code?
39. What are the stages of protein synthesis?
40. What is a gene mutation?
41. What is a point mutation?
42. What do point mutations include?
43. What is sickle cell anaemia and how does it affect the proteins in the body?
44. What are enzymes?
45. What is the lock and key hypothesis?
46. What is the induced fit hypothesis?
47. What do enzymes do to reactions?