By the end of this unit you should be able to;

1. Define and explain sexual and asexual reproduction.
2. Explain the advantages and disadvantages of sexual and asexual reproduction.
3. Describe the successful strategies adopted by asexually reproducing organisms including vegetative cloning, parthenogenesis and horizontal gene transfer.
4. State conditions where asexual reproduction is advantageous and explain the reasons for their success.
5. Give examples of asexual reproduction in eukaryotes.
6. Explain the importance of horizontal gene transfer in many organisms where asexual reproduction is the principle mode of reproduction.
7. Describe the process of meiosis and the impact of its production of variable gametes.
8. Use the following terminology in the correct context: meiosis I, meiosis II, gamete mother cell, chromosome, chromatid, crossing over, chiasmata, crossing over, independent assortment, linked genes and frequency of recombination.
9. Describe the features of homologous chromosomes and how they are inherited.
10. Explain the correlation between the distance between linked genes and their frequency of recombination.