

## MORE EXAM 4 MULTIPLE CHOICE PRACTICE QUESTIONS

- 1 The correct order of events in growth of a lytic phage, after DNA injection, is:
  - a. DNA replication, Transcription of phage genes, Lysis.
  - b. Repressor binding to operators, Inhibition of transcription, Integration.
  - c. Transcription of phage genes, Translation of phage proteins, Assembly.
  - d. Circularization of phage chromosome, Translation of integrase enzyme, Lysis.
- 2 A temperate phage chromosome which has been integrated into the host chromosome
  - a. is a prophage
  - b. maintains the potential to become a phage
  - c. is DNA
  - d. all the above
- 3 Homologous recombination
  - a. could occur in transformation
  - b. could occur in transduction
  - c. could occur in conjugation
  - d. all the above
- 4 To demonstrate transformation in the lab, you would need
  - a. donor DNA and recipient cells
  - b. recipient DNA and DNA ligase
  - c. male and female cells
  - d. any of the above is correct
- 5 Transduction in bacteria
  - a. requires the isolation of chromosome fragments
  - b. can be catalyzed by the fertility factor
  - c. requires the use of phages to move DNA from donor to recipient
  - d. all the above
- 6 Specialized transduction can be distinguished from generalized transduction by the fact that
  - a. homologous recombination is involved in the former but usually not the latter
  - b. transducing particles are involved in the former but usually not the latter
  - c. a selective medium is required to demonstrate the former but usually not the latter
  - d. lysogeny is involved in the former but usually not the latter
- 7 In bacteria, plasmids can be transferred from one cell to another by
  - a. conjugation
  - b. deletion
  - c. restriction
  - d. all the above
- 8 Conjugation
  - a. is one example of a mechanism of transferring DNA from one cell to another
  - b. involves male and female cells
  - c. does not necessarily require homologous recombination
  - d. all the above
- 9 Restriction and modification
  - a. take place in male and female cells, respectively
  - b. are required for chromosomal DNA transfer in conjugation
  - c. prevent phages from participating in transduction
  - d. cut and prevent DNA cutting, respectively
- 10 The acute phase of HIV infection is marked by:
  - a. opportunistic infections
  - b. viremia
  - c. the CD4 count drops below 200
  - d. all the above