

Assignment - I

- Q1. Which vectors (plasmid, phage, cosmid, BAC) can be used to clone a continuous fragment of DNA with the following lengths?
- (a) 4 kb (b) 20 kb (c) 35 kb (d) 100 kb
- Q2. A geneticist uses a plasmid for cloning that has the lacZ gene and a gene that confers resistance to penicillin. The geneticist inserts a piece of foreign DNA into a restriction site that is located within the lacZ gene and uses the plasmid to transform bacteria. Explain how the geneticist can identify bacteria that contain a copy of plasmid with the foreign DNA?
- Q3. How does a genomic library differ from a cDNA library?
- Q4. Give three important characteristics of cloning vectors.