

**LPUNEST - Ph.D. Biotechnology
(Sample Questions)**

QUESTION 1 The Southern blotting technique depends on

Option A similarities between the sequences of probe DNA and experimental DNA

Option B similarities between the sequences of probe RNA and experimental RNA

Option C similarities between the sequences of probe protein and experimental protein

Option D the molecular mass of proteins

QUESTION 2 Problems in obtaining large amounts of proteins encoded by recombinant genes can often be overcome by using

Option A BACS

Option B Expression vectors

Option C YACS

Option D All of these

QUESTION 3 A short molecule containing 2-20 nucleotide is

Option A plasmid

Option B vector

Option C oligonucleotide

Option D mononucleotide

QUESTION 4 The ratio of COD and BOD provides a useful guide to the types of _____

Option A Organic matter present in waste

Option B Amount of waste present

Option C Sludge present

Option D All of these

QUESTION 5 Plasmid has been used as vector because

Option A Both ends show replication

Option B It can move between prokaryotic and eukaryotic cells

Option C It is circular DNA which have capacity to join to eukaryotic DNA

Option D It has antibiotic resistance gene