

Yashwantrao Chavan College Of Science, Karad
B.Sc. (Part-II) (Semester -III) Examination, Mar/April- 2024-CBCS
BIOTECHNOLOGY (Opt/Voc)
Molecular Biology (Paper VI)
Subject Code :- 73318

Question Bank

- i) _____ play major role in bacterial conjugation.
a) Sexpili
b) Flagella
c) Cell wall
d) Cell membrane
- ii) There are _____ codons which not specify any amino acid.
a) 3
b) 64
c) 2
d) 61
- iii) A process of transduction was discovered by _____.
a) Griffith
b) Zinder and J.Lederberg
c) J.Tatum
d) Watson and Crick
- iv) A nucleotide requires _____ A° space
a) 34
b) 3.4
c) 340
d) 0.34
- v) The enzyme required for transcription is _____.
a) RNAase
b) DNA polymerase
c) RNA polymerase
d) restriction enzyme
- vi) Sigma factor is a component of _____.
a) DNA ligase
b) DNA polymerase
c) endonuclease
d) RNA polymerase
- vii) _____ is a initiation codon.
a) UUU
b) GGG
c) CCC
d) AUG
- viii) Replacement of purine by another purine is known as _____.
a) transversion
b) transition
c) insersion
d) deletion
- ix) _____ plays role in photoreactivation.
a) Phosphate
b) Photoligase

c) Phosphorylase

d) Photolyase

x) _____ formation prevents DNA replication.

a) Thymine dimer

b) Adenine dimer

c) Guanine dimer

d) Uracil dimer

xi) _____ are most powerful known chemical mutagen.

a) Acridine dyes

b) Base analogues

c) alkylating agents

d) Nitrous acid

xii) The process of formation of RNA is known as _____.

a) replication

b) DNA repair

c) translation

d) transcription

xiii) RNA polymerase in prokaryotes has a removable _____.

a) Alpha subunit

b) beta subunit

c) both a and b

d) sigma subunit

xiv) The minimal genetic unit capable of recombination is called _____.

a) muton

b) recon

c) cistron

d) exon

Long Answers

i) Explain structural organization of prokaryotic and eukaryotic gene.

ii) Explain SOS repair and mismatch repair.

iii) Explain transcription in eukaryotes.

iv) Explain replication in eukaryotes.

v) Explain genetic code and its properties.

vi) What is mutation? Explain spontaneous and induced mutation.

vii) Explain modes of gene transfer in bacteria

viii) Explain DNA repair -Photoreactivation and Excision repair

Short Notes

i) Spontaneous mutation.

- ii) Operon model.
- iii) Conjugation in bacteria.
- iv) Translation in eukaryotes.
- v) Photoreactivation.
- vi) Model of replication.
- vii) Excision repair.
- viii) Template DNA.
- ix) Translation in eukaryotes.
- x) Sos repair System
- xi) Genetic Code and its properties
- xii) Transformation in bacteria