

Gurudas College
Department of Biochemistry
Semester-V Hons.
Internal Assessment – 2020
Paper CC 11 (SET 1)

Total Marks-10

Choose the correct option:

1. Histone H1 binds two DNA helices.

- a) True
- b) False

2. At which end are the new DNA bases added?

- a) 5' triphosphate end
- b) 3' triphosphate end
- c) 5' OH end
- d) 3' OH end

3. You take a circular ssDNA and to it you attach a small labeled complimentary fragment. You add different reagents and try to get free labeled probe. Which of this reagent will give you your desired result?

- a) Dna b
- b) Dna c
- c) Dna G
- d) Dna a

4. In eukaryotes, in order to initiate transcription

- a) RNA strand must be present
- b) RNA polymerase must be present
- c) Core promoter sequence must be present
- d) None of these

5. In an experiment you use RNA polymerase without its sigma factor for transcription. What will be the result that you observe?

- a) More transcription
- b) Less transcription
- c) More specific transcription
- d) More random transcription

6. The enzyme that catalyzes the transposition of an IS element is called

-
- a) Transposase
 - b) Integrase
 - c) Transcriptase
 - d) Polymerase

7. In sickle-cell disease, a glutamate → valine substitution results in formation of HbS molecules, which:

- a) Aggregate abnormally and cannot adequately carry O₂
- b) Have abnormally high-affinity binding for O₂
- c) Stabilize the wall of the red blood cell against oxidative damage
- d) Cause experience high levels of repulsion between neighboring HbS molecules

8. Which enzyme is responsible for photoreactivation of DNA:

- a) photoligase
- b) photolyase
- c) photooxidase
- d) photo-reductase

9. Lac operon is an example of

- a) only positive regulation
- b) only negative regulation
- c) both positive and negative regulation
- d) sometimes positive sometimes negative

10. After cross-fertilization of true-breeding tall and dwarf plants, the F₁ generation was self-fertilized. The resultant plants have genotype in the ratio

- a) 1:2:1 (homozygous tall : heterozygous tall : dwarf)
- b) 1:2:1 (heterozygous tall : homozygous tall : dwarf)
- c) 3:1 (tall : dwarf)
- d) 3:1 (dwarf : tall)