

## WORK SHEET – 37

Sub: Biological Science Date: 10.08.2020

## Topic: Chapter 6 (Part 6) Mechanism of DNA replication

F.M. : 15

## Choose the correct option:

Class: XII

(1x15=15)

- The starting point where DNA replication begins is called :a)Origin b)Start Signal c) Origin of replication d) None of these
- 2. The enzyme which unzips the two strands of DNA by destroying hydrogen bonds is :- a)Helicase b) Topisomerase c) SSBP d) DNA
- 3. The synthesis of new DNA stand takes place in the following direction :a)  $5^{4}$  3' b) 3' $\rightarrow$  5' c) Both 3' $\rightarrow$  5' and 5' $\rightarrow$  3' d) All of these
- The primer for DNA replication is chemically made up of :a)DNA b) RNA c) Proteins d) None of these
- 5. The enzyme used for synthesize of primer is :
  - a) Primase b) Helicase c) Gyrase d) DNA pol
- 6. The DNA polymerase enzyme which has  $3' \rightarrow 5'$  exonuclease activity is :
  - a) Pol I b) Pol II c) Pol III d) All of these
- 7. The major repair enzyme is :
  - a) DNA pol I b) DNA pol II c) DNA pol III d) DNA ligase
- 8. The process of lining up deoxyribonucleotides opposite to the nitrogen base is called :
  - a) Base joining b)Base pairing c) Chain formation d) All of these
- 9. The process of sequential opening of DNA double chain and its replication to form two chains is called :
  - a) Chain formation b)Base pairing c) Zipper duplication d) None of these
- 10. The stand which is continuously synthesized is called :
  - a) Leader strand b) Leading strand c) Lagging strand d) All of these
- 11. The discontinuous strands of DNA synthesized are called :
  - a) Zipper fragments b) Lagging strand c) Okazaki fragments d) None of these
- 12. The enzymes which join up the Okazaki fragments is :a) DNA pol I b) DNA pol II c) DNA pol III d) DNA ligase
- 13. Proof reading and mutations due to mismatching is taken care of by the following enzyme :
  - a) DNA pol II b) DNA pol I c) DNA pol III d) DNA ligase

- 14. Characteristic of lagging stand :a)Consists of okazaki fragments b) Template opens at 5<sup>'</sup>→ 3<sup>'</sup> direction c) Okazaki fragments are joined by DNA ligase d) All of these
- 15. The activation of deoxyribonucleotides is required for DNA replication because :
  - a) Deoxyribonucleotides are the building blocks b) Provide energy c) Act as enzyme d) Both (a) and (b)

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