



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

WORK SHEET – 35

Class: XII

Sub: Biological Science

Date: 03.08.2020

Topic: Ch 6 (part 4) Experiments of Griffith and Hershey and Chase to prove DNA is the genetic material

F.M. : 15

Choose the correct option:

(1x15=15)

1. The following is the criteria to be fulfilled to be the genetic material :-
a) Storage of information b) Replication c) Stability d) All of these
2. The property of DNA as a genetic material where gradual modification arise due to mutations and recombination is called :-
a) Synthesis of proteins b) Variability c) Stability d) Replication
3. _____ isolated nuclein from nuclei of WBCs in 1869.
a) Sutton b) Morgan c) Meischer d) None of these
4. Frederick Griffith proved DNA is the genetic material in the year :-
a) 1949 b) 1928 c) 1952 d) 1978
5. Steptococcal strains used by Griffith his experiments are :-
a) S III and R II type b) R III and S II type c) R III and SIII type d) R II and SII type
6. Smooth strains were virulent because of the presence of :-
a) Stable DNA b) Capsule c) Protein cap d) All of these
7. When Griffith injected R II (non-virulent) bacteria in mice. The mice :-
a) Remained healthy b) Survived for sometime and later died c) Died immediately d) None of these
8. The heat killed S III strains changed the R II strains to smooth strains. This phenomenon is known as :-
a) Transforming principle b) Bacterial transformation c) Griffith's effect d) All of these
9. The biochemical nature of Transforming principle was proved :-
a) Griffith b) Hershey and Chase c) Avery, MacLeod, McCarty d) Sutton
10. When the DNA extract was treated with _____ enzyme the transforming property of extract was lost.
a) RNAase b) DNAase c) Protease d) All of these
11. Hershey and Chase conducted the experiments on _____ phages.
a) T2 b) T4 c) T3 d) T1

12. The bacteriophage which were grown in S^{35} medium, the radioactivity was seen in :-
a) DNA b) Protein coat c) Entire phage d) All of these
13. The T2 phages which were grown in radioactive phosphorous showed radioactivity in :-
a) Protein coat b) DNA c) Protein coat and DNA d) Neither DNA and protein coat
14. The phages which had radio labeled DNA after centrifugation showed radioactivity :-
a) In the bacterial cell b) Supernatant c) Both (a) and (b) d) In new phage generation
15. Hershey and chase proved DNA as the genetic material in the year :-
a) 1949 b) 1913 c) 1952 d) 1960

Shaista Ahmed