

The H.N.S.B.Ltd. Science College, Himatnagar
Internal Examination September-2017

B.Sc. Semester: V
Marks: 40

Subject: Microbiology
Paper No. : MB: 501

Date: 11 /09 /2017
Time: 2:00 to 3:30

(Molecular basis of Microbial genetics)

PART: A Answer any Six of Following.

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1. A nucleoside is composed of
(A) a base + a suger. (B) a base + a suger + phosphate
(C) a base + a phosphate. (D) none of these.
2. Function of β - galactosidase
(A) Degradation of lactose in to glucose and galactose
(B) Degradation of starch (C) pump β – galacto side in to cell.
(D) no known metabolic function.
3. Find out mismatch one
(A) UAA (B) UAG (C) GUG (D) UGA.
4. Unwinding of DNA replication is done by
(A) Helicase (B) ligase
(C) Hexo nuclease (D) Topoisomerase
5. During the replication of DNA the synthesis of DNA on lagging strand
take place in segment these segment are called _____
(A) Satellite segments (B) double helix segment
(C) kornbeg segment (D) okazaki fragment
6. Sigma factor is component of
(A) DNA ligase (B) DNA polymerase
(C) RNA polymerase (D) endonuclease
7. Transition type of gene mutation is caused when _____
(A) GC is replaced by TA (B) CG is replaced by GC
(C) AT is replaced by CG (D) AT is replaced by GC

PART: B Answer any Five of Following.

05

8. Explain chargaff rule (Definition only)
9. Define: Proofreading.
10. Function of IF3 in translation.
11. Sense strand in transcription.
12. Define: Mutation.
13. Define types of mutation based on origin.

PART: C Answer any Three of Following.

09

14. Explain: Mitosis.
15. Define : Leading strand , lagging strand , okazaki fragment
16. Give function of F-met + -RNA. **OR**
16. Explain : Induced mutation with example of base analog.
17. Photo reactivation repair.

PART: D Answer any Two of Following.

08

18. Enlist features of genetic code. Explain any three of them..
19. Explain meselson and stahl experiment of DNA replication.
20. Explain wobble hypothesis.
21. Mismatch repair: short note.

PART: E Answer any Two of Following.

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22. Short note: DNA replication.
 23. Difference between prokaryotic and eukaryotic transcription.
- OR**
23. Explain termination of transcription..