SS – 379

III Semester B.Sc. Examination, November/December 2018
(CBCS – F/R) (Semester Scheme)
MICROBIOLOGY – III
Microbial Physiology and Microbial Genetics

Time : 3 Hours Max. Marks : 70

Instructions : *1) Answer **all** the Sections.*
*2) Draw diagrams **wherever** necessary.*

SECTION – A

I. Write brief notes on the following. **(5×2=10)**

1) FADH.
2) Iron oxidising bacteria.
3) Anoxygenic photosynthesis.
4) DNA supercoiling.
5) Primers.

SECTION – B

II. Answer **any four** of the following. **(4×5=20)**

6) Briefly explain the properties of carbohydrates.
7) Give an account on Electron Transport Chain.
8) Write an account on various photosynthetic apparatus in prokaryotes.
9) Explain briefly on transposable elements.
10) Explain the mechanism of generalized transduction.

SECTION – C

III. Answer **any three** of the following. **(3×10=30)**

11) What is fermentation ? Explain homolactic and heterolactic fermentation in detail.
12) Explain the properties, nomenclature and classification of enzymes.

P.T.O.

13) Explain HMP pathway in detail.

14) Give a detailed account on the types of mutation.

15) Describe bacterial conjugation process in detail.

SECTION – D

IV. Answer the following in **one** sentence. **(10×1=10)**

16) Butanediol.

17) Phosphorylation.

18) Exergonic reaction.

19) Phosphodiester bond.

20) Lignocellulose.

21) Okazaki fragment.

22) Histones.

23) Z-DNA.

24) SSB protein.

25) Enthalpy.