



**The University of Burdwan**  
**B.Sc. (Hons.) Semester-VI Examinations, 2020**  
**Subject- Biotechnology**  
**Paper- DSE 3**

**(Medical Microbiology)**  
**Full marks-40      Time: 2 hrs**

**Answer any eight questions from the following :** 5 x 8 = 40

1. Describe the normal flora of upper respiratory and gastrointestinal tract in humans. 5
2. What are the symptoms and treatment available for candidiasis. 5
3. Differentiate between exotoxins and endotoxins.
4. Discuss the various stages of AIDS.
5. Describe the diagnosis and preventive measures for Typhoid. 5
6. Mention the stages of malaria. How can it be diagnosed? 5
7. What are the symptoms and treatment available for Tuberculosis. 5
8. Describe the mode of action of tetanus neurotoxin, with the help of a labelled diagram
9. Write a short note on Amoebiasis.
10. Describe the symptoms and treatment for infections caused by *Neisseria gonorrhoeae*.



Paper:DSE-3 (OR) (Environmental Biotechnology)

FM=40

Time: 2 hrs

1. Answer *any eight* of the followings:

5X8=40

- a) Write down the impact of conventional fuel on the environment.
- b) Write down the role of microbial hydrogen production towards making our environment green.
- c) Explain the importance of phytoremediation towards minimising of heavy metal pollution in soil.
- d) Write down how water bodies contaminated with oil spills.
- e) Write down the role of symbiotic and asymbiotic bacteria towards enrichment of soil with nitrogen.
- f) How algae and fungi can be used as biofertilizer?
- g) Write down the role of microorganism for enrichment of ores.
- h) Write down the environmental significance of genetically modified microbes.
- i) Differentiate between symbiotic and asymbiotic nitrogen fixing bacteria (any five).
- j) Differentiate between bioremediation and phytoremediation (any five)