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PG (NEW) CBCS
M.Sc. Semester-IV Examination, 2020
BOTANY
PAPER: BOT 495D (Special Paper)
PRACTICAL
MICROBIOLOGY

Full Marks: 50

Time: 2 Hours

Answer any one question within 250 words.

1. Write down the principle and procedure of DNA estimation. List different components used in this process.
2. Write down the principle and procedure of the multiple tube fermentation test for a water sample.
3. Write down the principle and procedure of enumeration of the bacterial number in the supplied soil sample.
4. Write down the principle and procedure for determination of survivability of a bacterium after UV exposure.
5. Write down the principle and procedure for the determination of MIC of an antibiotic against a bacterium.
6. Write down the principle and procedure for the isolation of *Rhizobium* from root nodule.
7. Write down the principle and procedure of the agarose gel electrophoresis. List different components used in this process.
8. Write down the principle and procedure of the polymerase chain reaction (PCR) of selected genomic part of microorganism. What are the components used in PCR mixer?
9. Write down the principle and procedure for determination of molecular weight of a protein by gel electrophoresis. What are different protein treating chemicals used in this process? What is native gel?
10. Write down the principle and procedure for constructing a phylogenetic tree using the DNA sequence. Mention utility of a phylogenetic tree.
11. Write down the principle and procedure for indole test. Mention its utility.
12. Write down the principle and procedure for citrate test. Mention its utility.
