

**PAPER II APPLIED MICROBIOLOGY**

**SEMESTER :II**

<b>UNIT</b>	<b>TOPIC</b>	<b>NUMBER OF LECTURES</b>
I	<b>MICROBIOLOGY OF AIR</b>  i. components of air, factors influencing survival of microbes in air involved ii. transmission of microbes through air, study of air quality, iii. control of microorganisms in air, and standards	<b>10</b>  3 4 3
II	<b>BIOTECHNOLOGY IN OUR LIFE</b>  a) Role of microorganisms in the production and spoilage of curd, cheese, wine, probiotic ice-creams  b) Microorganisms as SCP- characteristics and types c) Importance of microorganisms in compositing	<b>10</b>  6  2 2
III	<b>EFFECT OF ENVIRONMENT ON BACTERIA AND HOST PARASITE RELATIONSHIP</b>  a) Effect of Environment on Bacteria i. pH ii. temperature iii. Desiccation iv. Hydrostatic pressure v. Osmotic pressure	<b>10</b>  5

	b) Human Microbe interactions i. Normal flora of the human body ii. Relationship between microbes and human host	4  1
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## PRACTICALS APPLIED MICROBIOLOGY

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1. Study of air flora by sedimentation plate technique.
2. Group experiment on composting of kitchen/fruit waste and study its use as a fertilizer.
3. Making of wine using a seasonal fruit.
4. Study normal and abnormal fermentation of milk.
5. Isolate normal flora from sputum, skin and stool using empirical and selective medium
6. Study effect of pH, temperature, and osmotic pressure on growth of bacteria.