

**SARDAR PATEL UNIVERSITY**  
**Programme: MSC (Microbiology)**  
**Semester: IV**  
**Syllabus with effect from: June 2011**

<b>Paper Code:</b> PS04EMIC01	<b>Total Credits: 4</b>
<b>Title Of Paper:</b> Microbial Physiology	

<b>Unit</b>	<b>Description in detail</b>	<b>Weightage (%)</b>
<b>1</b>	Microbial cell surfaces Bacterial flagella and chemotaxis Bioluminescence Microbial toxins	<b>25 %</b>
<b>2</b>	Bacterial differentiation: endospore formation, physiological and genetic aspects of sporulation and spore germination Bacteria cell division Yeast cell division Microbial stress responses	<b>25 %</b>
<b>3</b>	Mechanism of action of antibiotics and mechanisms of drug resistance Microbial reserve compounds Siderophores; structure, function and significance Bacterial biofilms	<b>25 %</b>
<b>4</b>	Quoru sensing Bacteriocins Microbial fuel cells Host Parasite interactions	<b>25 %</b>

**Basic Text & Reference Books:**

- Bacterial signalling, Kramar and Jung
- Microbial Physiology, Moat, Foster and Spector
- The Physiology and Biochemistry of prokaryotes, David White
- Bacterial physiology: A
- molecular approach, W. E. Sharoud
- Topic related review articles

