

M.Sc.(Microbiology) CBCS Pattern Semester-I  
**PSMBT-104 - Paper-IV : Commercial Microbiology**

P. Pages : 1

Time : Three Hours



**GUG/W/23/11174**

Max. Marks : 80

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1. Explain in detail about bacteriological methods of oil recovery. **16**

**OR**

Write notes on.

a) Microbial solubilization of coal. **8**

b) Geomicrobiological methods of petroleum exploration. **8**

2. Describe the microbial production of Kojic acid and its use in cosmetics preparations. **16**

**OR**

Write notes on.

a) Evaluating of bacterial samples from Satellites and solar system bodies. **8**

b) ESA STONE experiment. **8**

3. Explain in details about production antimicrobial carpet and tiles. **16**

**OR**

Write notes on.

a) Antimicrobial papers. **8**

b) Bacteriostatic Sanitary napkins and towels. **8**

4. Describe the methods of Anti-microbial plastic production. **16**

**OR**

Write notes on.

a) Antimicrobial Rubbers. **8**

b) Antiseptic plastics. **8**

5. Write short notes on.

a) Bacteria as an indicators of petroleum biodegradation. **4**

b) Composition of astronauts' microbial flora. **4**

c) Antibiotic paper. **4**

d) Plastic producing microorganisms. **4**

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