

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

P. Pages : 1

Time : Three Hours



**GUG/W/18/11174**

Max. Marks : 80

Notes : 1. All questions are compulsory and carry equal marks.

1. Discuss the geomicrobial methods of ore and petroleum exploration. **16**
- OR**
- Describe the followings :
- a) Bacteriological method of oil recovery. **8**
- b) Microbial solubilization of coal. **8**
2. Describe the microbial production of Kojic acid and its use in cosmetics preparation. **16**
- OR**
- Write note on followings :
- a) Monitoring of Astronauts microbial flora. **8**
- b) ESA STONE experiment. **8**
3. Write note on followings.
- a) Antimicrobial garments. **8**
- b) Antibiotic paper production. **8**
- OR**
- Discuss the Bacteriostatic sanitary napkins and towels. **16**
4. Discuss the composition and production of antimicrobial plastic. **16**
- OR**
- Describe the followings.
- a) Production of plastic materials from microorganisms. **8**
- b) Composition of antimicrobial rubber. **8**
5. Write short note on followings.
- a) Evidence regarding biogenesis of petroleum. **4**
- b) Black yeast. **4**
- c) Antimicrobial fabric. **4**
- d) Antiseptic plastic. **4**

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