

**P. S. SCIENCE & H. D. PATEL ARTS COLLEGE,  
KADI**

**Internal Examination**

**B. Sc. Semester – IV**

**7-03-2018 Biotechnology: CC-BT-402 [Mark: 40]**

**Fundamentals of Microbiology [2Hrs]**

**Q.1. Attempted all question.**

**1\*1 =10**

1. Most human pathogens prefer temperatures near that of the human body. They are called
  - a. Psychrophiles
  - b. Mesophiles
  - c. Thermophiles
  - d. Halophiles
2. Full form of CFUs
  - a. Colony formal units
  - b. Counting forming units
  - c. Colony forming units
  - d. None of these
3. Lysol is a
  - a. Sterilent
  - b. Antiseptic
  - c. Disinfectant
  - d. Antifungal agent
4. Antiseptic methods were first introduced by
  - a. Lord Lister
  - b. Iwanowski
  - c. Beijernick
  - d. Edward Jenner
5. In Hot Air Oven, the principle involved is
  - a. Dry heat
  - b. moist heat
  - c. Steam under pressure
  - d. Both b and c
6. The spores of the bacteria which can withstand the moist heat effect also
  - a. Bacillus subtilis
  - b. Coxiella burnetti
  - c. Bacillus stearothermophilus
  - d. Pseudomonas
7. Algae use as indicator microorganism. (True / False)

8. Give two examples of the cultivation media for fungi.
9. Factors on which disinfectivity of a disinfectant depends
  - a. Concentration of the substance
  - b. Time of action
  - c. pH of the medium and temperature suitable for the chemical
  - d. All of the above
10. What is agar?
  - a. A nutrient
  - b. A solidifying agent
  - c. Vitamins
  - d. Amino acid

**Que. 2 Attempt any Four out of following. Each Question Carry**

**5marks**

**4\*5=20**

1. Enlist various measurement methods of microbial culture. Discuss in detail any three methods.
2. Describe in detail growth curve of Bacteria.
3. Explain in detail classification of bacteria based on Temperature requirement.
4. Explain Mode of action and application of Gaseous agent and Heavy metals to control microbes.
5. Explain the nutritional types of bacteria.
6. Discuss in detail cell cycle of virus.

**Que. 3 Attempt any one out of following. Each Question Carry**

**10 marks**

**1\*10 =10**

1. Enlist the various types of culture media. Explain in detail
2. Describe in details various physical agents used to control microbial contaminations.