

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

**Internal Examination**

**B. Sc. SEM - IV**

**[Mark : 40**

**19-3-2016]**

**CC Biotechnology - 402**

**[1-30 to 3-00**

**Fundamentals of Microbiology**

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**1. Answer all questions. Each question carries 1 mark. 10**

- (1) In \_\_\_\_\_ cycle of reproduction, phage genome integrates into the host genome.
- (2) \_\_\_\_\_ exhibit yeast-like growth at human body temperatures and mold-like growth at room temperature.
- (a) Dimorphic fungi                      (b) Black bread molds  
(c) Sac fungi                                (d) Water molds
- (3) Viruses require \_\_\_\_\_ for growth.
- (a) bacteria      (b) plants      (c) animals      (d) living cells
- (4) What is Binomial Nomenclature?
- (5) Secondary metabolites are produced during \_\_\_\_\_ phase of Bacterial growth curve.
- (a) Lag    (b) Log (Trophophase)  
(c) Stationary (Idiophase)      (d) Death
- (6) Cyanobacteria are examples of \_\_\_\_\_ organisms.
- (a) Photoheterotrophic                      (b) Photoautotrophic  
(c) Chemoautotrophic                      (d) Chemoheterotrophic
- (7) The organism which obtain their energy from chemicals are designated as \_\_\_\_\_.
- (a) prototrophs                                      (b) chemotrophs  
(c) organotrophs                                      (d) autotrophs

- (8) EMB agar medium is example of \_\_\_\_\_ medium.  
(a) Enriched (b) Selective  
(c) Differential (d) both b & c
- (9) When using alcohol as an antiseptic, which concentration is considered most effective?  
(a) 95% (b) 50% (c) 70% (d) 25%
10. \_\_\_\_\_ is define as complete destruction of all type of microbial life.  
(a) Disinfection (b) Sterilization  
(c) Gernicide (d) Antisepsis

**2. Answer any four of the following. 20**

**Each question carries 5 marks.**

- (1) Draw a labeled diagram of Lytic cycle of Bacteriophage reproduction & describe it in brief.
- (2) Describe the economic importance of Fungi.
- (3) Describe phases of microbial growth curve in detail.
- (4) Enlist different groups of chemicals that control microbial growth & explain any one in detail.
- (5) Describe the types of bacteria based on oxygen requirement.
- (6) Enlist the methods for measurement of live bacteria & explain any two methods in brief.

**3. Answer any 1 question. The question carries 10 marks. 10**

- (1) Explain Temperature as physical control agent.
- (2) Explain nutritional diversity among microbes in detail.
- (3) Explain the methods for classification of bacteria.