

Date: 15 /10/2015

Time: 11:30 am to 1:00 pm

Total Marks: 40

**Part –A Answer any five of following.****[05]**

- Q.1 The generation time of *Escherchia coli* is \_\_\_\_\_ min.  
(A) 10 (B) 20 (C) 25 (D) 30
- Q.2 Nephelometer useful for determination by \_\_\_\_\_.  
(A) dry weight (B) turbidometric (C) PCV (D) nucleic acid content
- Q.3 Which enzyme is used in facilitated diffusion?  
(A) permeases (B) carrier proteins (C) A&B (D) none
- Q.4 Which enzyme is involved in transfer of Glucose to glucose 6PO<sub>4</sub>.  
(A) hexose isomerase (B) hexose kinase  
(C) mutase (D) enolase
- Q.5 Which Bacteria can live in highly saline environment?  
(A) Psychrophile (B) Halophile  
(C) thermophiles (D) Barophiles
- Q.6 Find out mismatch one.  
(A) Phenol (B) Ethylene oxide  
(C) Iodine (D) Heat
- Q.7 What are optimum pH values for growth of acidophilic bacteria?  
(A) 2.0 and 3.5 (B) 2.0 and 3.0  
(C) 3.0 and 4.0 (D) 3.0 and 4.5

**PART-B Answer any five of following questions.**

**[05]**

Q.8 Define: Fastidious organism

Q.9 What is Mixotroph?

Q.10 Define: Chemoheterotroph

Q.11 Enlist the instrument used for turbidometric method?

Q.12 What is the full name of PHB?

Q.13 Who gave the systematic nutritional classification approach of bacteria?

Q.14 Define: Microaerophiles.

**PART-C Answer any three of the following.**

**[06]**

Q.15 Explain energy rich compounds ?

Q.16 What is Passive diffusion?

Q.17 Secondary metabolism.

Q.18 Define: Micronutrient and Macronutrient.

Q.19 Note on Salmonella –Shigella agar

**PART-D Answer any four of the following.**

**[12]**

Q.20 Short note: Membrane filtration technique.

Q.21 Give the details of Biological respiration.

Q.22 Explain: Turbidostat.

Q.23 Short note: Synchronous growth.

Q.24 Explain: Nucleic acids.

Q.25 Explain: Transverse binary fission?

**PART-E Answer any two of the following.**

**[12]**

Q.26 Explain Temperature based classification of bacteria.

Q.27 Short note: Viable count.

Q.28 Write down nutritional classification basis of carbon and energy sources.

Q.29 Explain any two general mode of action of chemotherapeutic agents.