

(24)

SARDAR PATEL UNIVERSITY
S.Y.BSc. EXAMINATION
2013
USO3 EMIC 01 (SEMESTER III)
SUB: MICROBIOLOGY (E MIC 01)
(Fundamental Microbiology)

No. of Printed Pages: 02

Date: 07-12-2013

Time: 02-30 to 04-30

Total Marks: 70
Saturday

Q-1 Attempt all following multiple choice question.

(10)

- (1) Who invented Microscope?
 - (a) Antony Van Leeuwenhoek
 - (b) Joseph Lister
 - (c) Robert Koch
 - (d) None of these
- (2) What is the contribution of Sergei N. Winogradsky?
 - (a) Discovered Phagocytosis
 - (b) Discovered Nitrogen fixing Bacteria
 - (c) Discovered Complement fixation reaction.
 - (d) Introduced use of Antiseptic
- (3) Bacterial Ribosome is platform for the synthesis of
 - (a) DNA (b) RNA (c) Protein (d) None of these.
- (4) In bacteria this is responsible for permeability of chemicals
 - (a) Pili (b) Cell membrane (c) Flagella (d) All of these.
- (5) DNA consists of
 - (a) Calcium (b) Phosphate (c) Protein (d) None of these.
- (6) The eyepiece of the microscope provides magnification of
 - (a) 20x (b) 40x (c) 10x (d) None of these
- (7) A film of a specimen on a microscope slide is called
 - (a) Smear (b) Layer (c) Coating (d) Area
- (8) The color of gram negative bacteria after being stained by Gram's Method will be seen as
 - (a) Purple (b) Pink (c) Red (d) Green
- (9) Organisms which rely on chemical compounds for their energy are called
 - (a) Lithotrophs
 - (b) Organotrophs
 - (c) Phototrophs
 - (d) Chemotrophs
- (10) Organisms which require organic compounds as their carbon source are termed
 - (a) Autotrophs
 - (b) Heterotrophs
 - (c) Photosynthetic
 - (d) None of the above

(P.T.O.)

Q-2 Attempt the following (any ten)

(20)

- (1) What is Fermentation?
- (2) Explain the Term "Phagocytosis".
- (3) Define: (a) Vaccine (b) Colony
- (4) Give two example of Cytoplasmic Inclusion.
- (5) Write any two functions of capsule.
- (6) Write two functions of Pili.
- (7) Why fixation of smear is necessary?
- (8) What is resolving power?
- (9) What is meant by basic dye? Give two example of basic dye.
- (10) Distinguish between lithotrophs and organotrophs.
- (11) Describe selective media with an example.
- (12) Define: (1) Exponential phase
(2) Autotrophs

Q-3 (A) Write a note on: "Germ theory of Disease"

(06)

(B) Give an account on Molecular Biology.

(04)

OR

Q-3 (A) Write a note on "Laboratory Techniques and Pure Cultures"

(06)

(B) Write Koch's Postulates.

(04)

Q-4 Write a note on bacterial cell wall.

(10)

OR

Q-4 Write on: (A) Bacterial Endospore.

(05)

(B) Bacterial Flagella

(05)

Q-5 Enlist component parts of Microscope and write the function of each Component.

(10)

OR

Q-5 Explain gram's staining in detail and gives two examples of gram positive bacteria and gram negative bacteria.

(10)

Q-6 Describe the Growth Curve of bacteria.

(10)

OR

Q-6 (A) Write a note on common ingredients of culture media.

(06)

(B) Describe Streak Plate method used for cultivation of bacteria.

(04)

-- Best of Luck --