



V.P. & R.P.T.P. SCIENCE COLLEGE

B.Sc.; Internal Examination

Microbiology: US03CMIC01

Monday: 01.10.18

Total Marks:50

03.00 p.m. -05.00 p.m

Q.1. Attempt the following multiple choice questions.

(08)

1. Basic technique of plugging the bacterial culture tubes with cotton was initiated by
 - (a) Schulze and Schwann
 - (b) H.Schroeder and T von Dusch
 - (c) Louis Pasteur
 - (d) Robert Koch
2. TMV was first isolated in crystalline form by
 - (a) D.Iwanovski
 - (b) W.M.Stanley and John Northrup
 - (c) A.E.Mayer
 - (d) E.Smith and P.A.Bonquet
3. The group that imparts colour to the dye molecule is
 - (a) chromophore group
 - (b) auxochrome group
 - (c) both (a) and (b)
 - (d) neither(a) nor(b)
4. Nigrosine is an example of
 - (a) neutral dye
 - (b) acidic dye
 - (c) basic dye
 - (d) leuco dye
5. Gram positive bacteria usually have a much greater amount of ----- in cell wall than do Gram negative bacteria.
 - (a) lipid
 - (b) peptidoglycan
 - (c) phospholipid
 - (d) all of the above
6. Flagella is made up of protein-----
 - (a) globulin
 - (b) flagellin
 - (c) albumin
 - (d) none of the above
7. While using oil immersion lens the refractive index of oil used should be similar to
 - (a) air
 - (b) water
 - (c) glass
 - (d) none of the above

PTO

8. The function of the exciter filter in fluorescence microscope is to remove all but

- (a) green light
- (b) blue light
- (c) maroon light
- (d) pink light

Q.2. Attempt any five out of the following.

1. Define phagocytosis.
2. Enlist Robert Koch's postulates.
3. Write any two functions of capsule.
4. What are pili?
5. Describe the role of decolorizer in staining.
6. Define stain. Give two examples of basic stain.
7. Explain numerical aperture.
8. Define resolving power



(10)

Q.3. Describe the contributions of Louis Pasteur.

(08)

OR

Q.3. Write notes on spontaneous generation theory.

(08)

Q.4. Draw a neatly labeled diagram of bacterial flagella and write a note on the same in detail.

(08)

OR

Q.4. Write a note on the structure of cell wall.

(08)

Q.5 Write notes on:

(08)

- (i) Vital staining.
- (ii) Mordant

OR

Q.5. Discuss Gram Staining in detail.

(08)

Q.6. Write an essay on bright field microscopy.

(08)

OR

Q.6. Write a note on transmission electron microscopy.

(08)