(d) Spirulina 4

(e) PSB 4

(f) Aspergillus. 4

6. Describe in brief :

(a) Typhoid 4

(b) Koch postulates 4

(c) Hepatitis. 4

OR

(d) AIDS 4

(e) Mycoplasma 4

(f) Dermatophytes. 4

7. Describe in detail working and applications of UV-VIS spectrophotometer. 12

OR

Describe in detail agarose gel electrophoresis. 12

AQ–668A

B.Sc. Part–I (Semester–II) Examination

2S : BIOTECHNOLOGY (R/V)

(Microbiology)

Time—Three Hours] [Maximum Marks—80

Note :— (1) **ALL** questions are compulsory.
(2) Draw well labelled diagrams wherever necessary.

1. (a) Fill in the blanks :

(i) Bacteria growing in high salt concentration are called as _____.

(ii) Bacilli are the _____ shaped bacteria.

(iii) _____ are called as locomotory organs of bacteria.

(iv) Long form of TEM is _____. 2

(b) Choose correct option :

(i) _____ is an example of prokaryotic organism.

(a) Yeast (b) Fungi

(c) Bacteria (d) Protozoa

(ii) In glycolysis energy is produced in the form of _____.

(a) ATP (b) GTP

(c) TTP (d) CTP

(iii) Rhizobium is _____ N_2 fixer .

(a) Symbiotic

(b) Nonsymbiotic

(c) None

(d) Both symbiotic and nonsymbiotic

(iv) Cuvette is used in _____.

(a) TLC

(b) Colorimeter

(c) Paper electrophoresis

(d) Radioisotope techniques 2

(c) Answer in **one** sentence each :

(i) Endospore

(ii) Antibiotic

(iii) Immunity

(iv) Cocci. 4

2. Differentiate between :

(a) Optical and Electron microscope 4

(b) TEM and SEM 4

(c) Simple and Gram staining. 4

OR

(d) Dry heat and moist heat sterilization 4

(e) Gram staining and Acid fast staining 4

(f) Bacilli and Cocci. 4

3. Explain the following :

(a) Fluid mosaic model 4

(b) Firmicutes 4

(c) Halophiles. 4

OR

(d) Heterotrophs 4

(e) Structure of flagella 4

(f) Functions of cell wall. 4

4. Describe in detail glycolysis process. 12

OR

Describe in detail Kreb's cycle. 12

5. Give the importance of following microbes in industry :

(a) Streptomyces 4

(b) Rhizobium 4

(c) Lactobacillus. 4

OR