#### **B. SC. BIOCHEMISTRY**

Second Semester Microbiology-II (BBC- 07)

Duration: 3Hrs. Full Marks: 70

(PART-B: Descriptive)

uration: 2 hrs. 40 mins. Marks: 50

#### 1. Write scientific definition of the following terms:

2x5 = 10

- a) Pedogenesis
- b) Rhizosphere effect
- c) Food preservatives
- d) Eutrophication
- e) Food spoilage

### 2. Answer any two questions from the following

- a) Define phyllospheric microbes. Add a brief note on the importance of phyllosphere and phylloplane microbes in plant life.
  2+4=6
- b) Discuss the various phases of bacteriological analysis of water for determination of fecal contamination.
- What is tinea? Add a brief note on such dermatological infection occurring in man. 2+4=6

#### 3. Answer any two questions from from the following

- a) Discuss the industrial production process of Penicillin mentioning the important factors involved in the process.
- b) What important purpose a successful preservation method should fulfill? Discuss briefly the various methods employed for preservation of food materials. 2+8=10

c) Discuss the major symptoms of Hepatitis in men. What are the important method diagnosis for detection of this disease. Give a brief note on the preventive measures for Dengu.
 3+4+3=10

#### 4. Write brief notes on the following (any two):

2x4 = 8

- a) Soil Horizon (with diagram)
- b) Dermatophytes
- c) Cesspools (with diagram)
- d) Physical properties of soil
- e) Factors affecting aero-microbial distribution
- f) Milk-borne diseases in man
- g) Structure of HIV (with diagram)

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## **B. SC. BIOCHEMISTRY**

# Second Semester Microbiology-II (BBC - 07)

(The figures in the margin indicate full marks for the questions)

Duration: 20 minutes Marks – 20

## PART A- Objective Type

1. Choose the correct option for th	e following questions: $1x20=20$
i. The milk borne disease Q-fever is	caused by
a) Mycobacterium bovis	b) Lactobacillus casei
c) Streptococcus lactis	d) Coxiella burnetti
ii is produced from shredded cabbage.	lactic acid fermentation of wilted,
a) Miso	b) Tofu
c) Saurkraut	d) Pickle
iii. Penicillium roqueforti is associa cheese.	ted with the production of
a) Brie	b) Roquefort
c) Comembert	d) None of the above
iv. Keratinophilic nature is character	istic of
a) Dermatophytes	b) Mycobacteria
c) Actinomycetes	d) Bacteriophages
v. To accelarate the process of sludgis used.	ge-digestion, dried cells of
a) Pseudomonas aeruginosa	b) Bacillus cureus
c) Bacillus subtilis	d) Bacillus stearothermophillus

vi. Ramp-variation is a method	of	
a) Composting	b) Bioremediation	
c) Liquid waste treatment	d) Sanitary landfill	
vii. When a food material has b	been altered from the expected normal form, it is kn	own as of food.
a) Fermentation	b) Soilage	
c) Pasteurization	d) none of the above	
viii. Microbe surviving heat of	pasteurization are capable of milk spoilage and are	known as
a) thermophilic	b) thermoduric	
c) heat tolerant	d) all of the above	
ix, a form of ring w	form in nails is also known as onychomycosis.	
a) Tinea pedis	b) Tinea unguium	
c) Tinea facie	d) Tinea cruris	
x. Self-decomposition of food i	s prevented by inactivating the enzymes in food by	a process called
a) asepsis	b) blanching	
c) radiation	d) lyophilization	
xi. Some food materials are pr	reserved by adding salt or sugar to them. This met	hod applies the principle of
a) Osmosis	b) Filtration	
c) Radiation	d) Lyophilization	
xii. Cereal is an example of	food product.	
a) semi-perishable	b) highly-perishable	
c) none-perishable	d) none of the above	
xiii. Black-rot of egg is caused	by	
a) Pseudomonas spp.	b) Salmonella spp.	
c) Proteus spp.	d) Serratia spp.	

xiv. Chemical used in <i>reductase</i>	test of dairy product is	
a) resazurin	b) disodium-phenyl phosphate	
c) methyl red	d) none of the above	
xv. Granite is an example of	rock.	
a) Ingenous	b) Sedimentary	
c) Metamorphic	d) none of the above	
xviis known as Hans	en's bacillus.	
a) Mycobacterium Laparae	b) Mycobacterium bovis	Sift Igotmatika
c) Mycobacterium kansassii	d) Mycobacterium tuberculae	
xvii. Increase in nutrients like nit of pollution.	trates and phosphates leads to the problem of eutrop	phication. It is an example
a) physical	b) chemical	
c) biological	d) none of the above	
xviii. Uncaria tomentos (cat's cla	w) extract is claimed to be an elusive cure for	enequal(6 -
a) Hepatitis	b) Dengu	
c) Aids	d) Bird flu	
xix. Floating materials in sewage	are removed during	
a) primary treatment	b) secondary treatment	
c) tertiary treatment	d) preliminary treatment	
xx. Some food materials are pre	served by adding salt or sugar to them. This method	od applies the principle of
a) Type A	b) Type B	
c) Type C	d) Type D	