

B. N. BANDODKAR COLLEGE OF SCIENCE, THANE

~~IV SEMESTER END EXAMINATION - MARCH - 2015~~

ADDITIONAL/ATKT

JUNE

S.Y.B.Sc.

USMB- 403

Duration: 2 hrs 30 min

Total Marks: 75

N. B. 1) All questions are compulsory.

2) Figures to right indicate full marks.

3) Draw neat and labeled diagrams wherever necessary

Q.1 Answer the following (Any 2 of 4).

20M

- 1 Explain in brief about preparative and density gradient centrifugation.
- 2 Justify – ‘Ion exchange chromatography have various applications.’
- 3 Explain in detail about paper chromatography along with its applications.
- 4 Explain HPLC and give its applications.

Q.2 Answer the following (Any 2 of 4).

20M

- 1 Write a short note on manufacture of Butter.
- 2 Justify – Different factors influence the process of churning in butter production.
- 3 What are the types of Ice cream? Explain the different defects observed in it.
- 4 Write a short note on method of condensing milk along with its standardization & defects.

Q.3 Answer the following (Any 2 of 4).

20M

- 1 Explain the production of biohydrogen.
- 2 What are the advantages and disadvantages of bioethanol?
- 3 Explain vermicomposting, also draw suitable diagram for the same.
- 4 What are biochips? Explain its types in brief.

P.T.O.

Q.4 Answer the following.

a

- i** Give two examples of adsorbents used in adsorption chromatography. **OR** 2M
Define void space.
- ii** What is emulsification of milk? **OR** 2M
Explain briefly Transportation of milk.
- iii** What is the calorific value of biogas? **OR** 1M
Give example of phosphate solubilizing micro organism.

b

- i** Give composition of the solvent system used for plant pigments in paper chromatography. **OR** 1M
Define cation exchanger.
- ii** Explain platform test. **OR** 2M
What is the normal flora of milk?
- iii** Explain analytical reaction. **OR** 2M
Explain acoustic wave biosensors.

c

- i** Give the solvent system used for amino acids used in paper chromatography. **OR** 2M
Give significance of isopycnic centrifuge.
- ii** Define: 'homogenization of milk. **OR** 1M
What is HTLT?
- iii** Give any two examples of single specie used in vermicomposting. **OR** 2M
Define: bioleaching.
