

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, *B.Tech. (D.T.) Degree Course* 2017-18

Semester	: II (V Dean)	Academic Year	: 2017-2018
Course No.	: DM-202	Course Title	: Microbiology of Fluid Milk
Credits	: 1+1=2	Total Marks	: 50
Day & Date	: Monday, 18.06.2018	Time	: 11.00 to 13.00 hrs.

- Note :
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labelled diagram wherever necessary.

SECTION - 'A'

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) In the methylene blue Test the formation of leucomethylene blue imparts colour to milk.
 - a) Blue
 - b) Pink
 - c) Lilac
 - d) White
- ii) Mastitis milk has lower content
 - a) Chloride
 - b) Casein
 - c) Immunoglobulin
 - d) All of the above
- iii) The red discoloration in milk held at low temperatures is caused by
 - a) *Ps. putida*
 - b) *Serratia marcescens*
 - c) *Ps. synxantha*
 - d) *Ps. syncyanea*
- iv) *Listeria monocytogenes* are
 - a) Gram positive
 - b) Gram Negative
 - c) Sporulating
 - d) All of these
- v) Most of the Gram negative organisms showing are
 - a) Cocci
 - b) Bacilli
 - c) Sprilla
 - d) None of these

B) Define the following. (05)

- i) Enterotoxin
- ii) Disease
- iii) Proteolysis
- iv) Abnormal milk
- v) Antibiotic

Q. 2 A) Answer the following questions in one or two sentences. (05)

- i) Bitty cream is caused by which organisms.
- ii) State one example of fecal coliform.
- iii) State the name of organisms causing Q fever.
- iv) State the dye used MBRT detection.
- v) State the one or two examples of emerging pathogens.

(P.T.O.)

B) Do as directed following.

(05)

- i) State name of media used for cultivation of E. coli.
- ii) State the specification the test tube used for conducting MBRT.
- iii) State the effect of an methylene blue after reduction.
- iv) State the names of Endotoxin producing organisms.
- v) State the role of Ig in body.

SECTION - 'B'

- Q. 3 A) Describe in detail mastitis milk. (05)
B) Describe in detail various sources of contamination in raw milk. (05)
- Q. 4 A) Explain in detail types of microbial spoilages of milk. (05)
B) Discuss in detail Hygienic milk production system. (05)
- Q. 5 A) Enlist antimicrobial substances present in raw milk. (03)
B) Enlist various heat treatment used in raw milk. (03)
C) Discuss in detail public health aspects of fluid milk. (04)
- Q. 6 A) Write a short note on post processing contamination of fluid milk. (03)
B) Describe in detail microbes associated with fluid milk. (03)
C) Discuss in detail microbial changes in bulk refrigerated raw milk. (04)
- Q. 7 Describe in detail various milk borne diseases transmitted through fluid milk. (10)
