

**Savitribai Phule Pune University**  
Anekant Education Society's  
**Tuljaram Chaturchand College, Baramati**  
B.Voc. Food Processing and Post-Harvest Technology  
Semester Examination, April 2019-2020  
**Semester I, Paper FP - 5, Food Microbiology - II**  
**Question Bank**

**Q. 1 Answer the following questions**

**13M**

- a) The term \_\_\_\_\_ is employed to sour taste and odour.
- b) Clostridium species are generally grown by using \_\_\_\_\_ medium.
- c) In detection procedure of *Mycobacterium tuberculosis* \_\_\_\_\_ dye is used.
- d) Poultry held at 10° or below is spoiled by \_\_\_\_\_ and \_\_\_\_\_.
- e) \_\_\_\_\_ are natural, non-digestible food components that are linked to promoting the growth of helpful bacteria in our gut.
- f) Quality
- g) Microscope
- h) Culture medium
- i) *Clostridium botulinum* is responsible for \_\_\_\_\_ disease.
- j) \_\_\_\_\_ culture method is employed for demonstration of gelatin liquification and oxygen requirement of bacteria
- k) In \_\_\_\_\_ staining techniques organism remains colourless and background is stained.
- l) Slope of \_\_\_\_\_ medium is used for urease test.
- m) \_\_\_\_\_ type of surfactants produce negative charged ions in solution.
- n) Motility of an organism is studied by using \_\_\_\_\_ technique.
- o) Egg yolk containing media is used to test \_\_\_\_\_ enzyme production property of an organism.
- p) Define dye
- q) \_\_\_\_\_ is mucilagenous substance extracted from algae *Gelidium corneum*.
- r) \_\_\_\_\_ staining method is used to stain volutin or metachromatic granules of *Corynebacterium*.
- s) Christaeanson's media is an example of \_\_\_\_\_ media.
- t) What is the principle of Gram's staining
- u) Which yeast is called as wine yeast
- v) Which microorganisms play important role in idli fermentation
- w) Which light is used as source of illumination in electron microscope
- x) Give ingredients of nutrient agar medium
- y) \_\_\_\_\_ and \_\_\_\_\_ are selective ingredients in MacConkey's agar medium
- z) How much agar is used in solid media

**Q.2 Short notes**

**15M**

- a) MacConkey's agar
- b) Bright field microscope
- c) Equipments in control at source
- d) Gram's Staining
- e) Negative staining
- f) Streak plate technique
- g) Spoilage of fruits and vegetables

- h) Types of stains
- i) Cleaning and Disinfection
- j) Pure culture techniques
- k) Probiotic
- l) Prebiotic
- m) Saurekraut
- n) Idli
- o) Cleaning in place
- p) Nutrient agar
- q) Types of media

**Q.3 Long Notes**

**10M**

- a) Write in detail about different types of dyes depending upon their chemical nature.
- b) Discuss training in food industry to control microbial quality of food.
- c) Define staining and give detailed process of Grams staining
- d) Explain in detail physical methods of controlling microorganisms.
- e) Enlist types of culture media and explain any one.
- f) Enlist fermented products and give details about soya sauce
- g) Explain in detail Probiotic with suitable examples
- h) Explain in detail microbiology of bread
- i) Explain in detail selective media with suitable example
- j) Explain in detail types of media

**Q4. Long answer questions**

**12M**

- a. Enlist pure culture techniques and explain any three techniques in detail
- b. Explain in brief Single cell protein with its advantages and disadvantages.
- c. Give a detail account on differential staining.
- d. Define culture media. Enlist and explain types of culture media depending upon functions and applications.
- e. Define fermentation and explain in detail its microbiology
- f. Give a detailed account on antibiotic production