BRAINWARE UNIVERSITY

Term End Examination 2020 - 21

Programme – Bachelor of Science (Honours) in Microbiology

Course Name – Food Fermentation Techniques

Course Code - BMBS301B

Semester / Year - Semester III

Time allotted : 75 Minutes Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question) 1 x 60=60

1. *(Answer any Sixty)*

(i) Which of the following is the process of anaerobic degradation of proteinaceous materials?

a) Respiration
b) Fermentation
c) Putrefaction
d) All of the mentioned

(ii) Which of the following gases are evolved during putrefaction?

a) Carbon dioxide
b) Hydrogen sulfide
c) Both
d) None

(iii) Which of the following is a requisite for a microorganism to be used in fermentation and pickling?

a) Microorganisms must be able to grow on the substrate
b) Organism must have the ability to maintain physiological constancy under growing conditions
c) Desired chemical changes should take place in the required conditions
d) All of the mentioned

(iv) Organisms such as _____ which attack higher carbohydrates injure the _____ of treated foods.

a) Cellulose, textur
b) Pectin, flavor
c) Hemicelluloses, quality
d) All of the mentioned are equally

applicable

(v) Which of the following is true about cheeses?

a) To encourage growth throughout cheese mass

b) Fatty acids and ketones give rise to the sharp, peppery flavor of cheese

c) It is a common practice to pierce the pressed cheese when it is placed in a curing room

d) All of the mentioned

(vi) Pasteurization is applied in which of the following ways?

a) Flash pasteurization and returning to storage tank

b) Flash pasteurization and into the final bottle

c) Pasteurization by heating the filled and sealed bottle

d) All of the mentioned

(vii) The purpose of bulk pasteurization is _____

a) To sterilize the wine chemically and physically by coagulating certain heat coagulable colloids

b) To sterilize it microbiologically by destroying bacteria and yeasts

c) To hasten aging

d) All of the mentioned

(viii) A vinegar containing 5 grams of acetic acid per 100 cubic centimeters is referred to as

a) 0.5 grain

b) 5 grain

c) 50 grain

d) 500 grain

(ix) Fermentation is a/an_____ process

a) Anaerobic

b) Aerobic

c) Degrading

d) Anabolic

(x) Due to fermentation, sugars and complex carbohydrates are converted into

a) Carbon dioxide

b) Alcohols

c) Lactic acid
d) All are true

(xi) Milk contains

a) 5% lactose
b) 10% lactose
c) 20% lactose
d) 30% lactose

(xii) One molecule of glucose can be converted into how many molecules of lactic acid?

a) 1
b) 2
c) 3
d) 4

(xiii) Dahi

a) Makes bones stonger
b) Reduce immunity
c) Increases weight
d) Bad for heart

(xiv) The type of fermentation observed in yeast is

a) Acrylic fermentation
b) Lactic acid fermentation
c) Pyruvic fermentation
d) Alcoholic fermentation

(xv) In lactic acid fermentation, the final electron acceptor is

a) Lactic acid
b) Oxygen
c) Pyruvate
d) NAD

(xvi) Which of these is not a product of fermentation?

a) Lactate
b) Carbon dioxide
c) Oxygen
d) Ethanol

(xvii) Glucose molecule during the process of glycolysis is broken down into

a) Four pyruvic acid
b) Three pyruvic acid
c) Two pyruvic acid
d) One pyruvic acid

(xviii) Fermentation occurs in the

a) Presence of oxygen
b) Absence of oxygen
c) Presence of nitrogen
d) Presence of carbon

(xix) Anaerobic respiration by yeast produces

a) Carbon dioxide
b) Wine and beer
c) Alcohol
d) All of these

(xx) Which of the following is not a vegetable or fruit based fermented product?

a) Wine
b) Sauerkraut
c) Beer
d) Vinegar

(xxi) The process of making beer is known as

a) Mashing
b) Brewing
c) Malting
d) Sparging

(xxii) Containing viable microorganism product is

a) Sauce
b) Coffee
c) Cheese
d) Wine

(xxiii) Which of the following product is an example of containing non-viable microorganism?

a) Yogurt
b) Cheese
c) Wine
d) Curd

(xxiv) Yellow color of milk fat is due to presence of

a) Vitamin A
b) Carotenoid
c) Folic acid
d) Calcium

(xxv) Which is not true for fermented foods?

a) Makes the food more digestible
b) Increase storage life
c) Synthesis vitamin
d) Decrease intestinal microflora

(xxvi) Identify the correct sequence during the industrial production of substances

a) Screening, inoculation, fermentation, downstream processing, removal of waste
b) Fermentation, screening, inoculation, downstream processing, Removal of waste
c) Inoculation, screening, fermentation, downstream processing, removal of waste
d) Fermentation, inoculation, inoculation, removal of waste, downstream processing

(xxvii) Pasteur effect discoverd in 1857, is

a) Inhibiting effect of oxygen on the fermentation process
b) Aerating yeasted broth causes yeast cell growth to decrease,thus fermentation rate increase
c) All of these
d) None of these

(xxviii) The process of pasteurisation was discovered by

a) C.F. Bennett
b) Sir Louis Pasteur
c) S.S wheeler
d) Sir Samuel Francis

(xxix) The protein present in milk is

a) Casein
b) Glutenin
c) Ovalbumin
d) None of these

(xxx) The pH range of fermented milk is

a) 4-7
b) 3.8 - 4.6
c) 2.2 – 4.8
d) 7-9

(xxxi) The large holes in the cheese are due to

a) oxygen production
b) carbon dioxide production
c) sulfur dioxide release
d) lead oxide release

(xxxii) Which of the following is a soft cheese?

a) cottage cheese
b) cheddar cheese
c) parmesan cheese
d) Swiss cheese

(xxxiii) The starter composition of Swiss cheese

a) S. thermopkilus
b) L. helveticus
c) Propeonibacterium sheumani
d) All of these

(xxxiv) During manufacture of dahi pasteurization is done at a temperature of …… for …… mins

a) 80-900c/15-30mins
b) 1000c/15-30mins
c) 120-1500c/30-45mins
d) 90-1200c/15-20mins

(xxxv) Rennet is

a) the hard cheese
b) the complex set of enzyme
c) the soft cheese
d) the semi-hard cheese

(xxxvi) During production of yoghurt, L. bulgaricus break down milk protein into peptide to form

a) proteolytic enzyme
b) formic acid
c) lactose
d) All of these

(xxxvii) Buttermilk is a fluid product resulting from the manufacture of

a) cheese
b) yogurt
c) ice-cream
d) butter

(xxxviii) Lactose is disaccharide containing

a) glucose & fructose
b) glucose & galactose
c) glucose & glucose
d) glucose & maltose

(xxxix) Milk is an emulsion of

a) oil in water
b) water in oil
c) oil in oil
d) oil in starch

(xl) Fat percentage in cultured butter milk is

a) 0.5-3%
b) zero percentage
c) 4-5%
d) 6-8%

(xli) Temperature used in UHT treatment is

a) 90-1000c
b) 120-1250c
c) 100-1200c
d) 130-1400c

(xlii) Water content level in dahi is

a) 90-1000c
b) 120-1250c
c) 100-1200c
d) 130-1400c

(xliii) Lactic statue in dahi is

a) S. theumophilus
b) L. helviticus
c) both of these
d) none of these

(xliv) Which of the following is obtained by fermenting milk?

a) Gundruk
b) Cheese
c) Sinki
d) Kombucha

(xlv) Which of the following leads to the formation of soft cheese?

a) Removal of a small proportion of whey
b) Using more amount of milk
c) Removal of the larger proportion of whey
d) Using less amount of milk

(xlvi) Which of the following is a semi-hard cheese?

a) Cheddar cheese
b) Parmesan cheese
c) Edam cheese
d) Cream cheese

(xlvii) _____ is the detrimental effect of microorganisms in the food

a) Generation of flavor
b) Process of fermentation
c) Spoilage of food
d) All of these

(xlviii) What is the process called due to which idli and dosa makes it fluffy and soft?

a) Pasteurisation
b) Fermentation
c) Vaccination
d) None

(xlix) Yeast contains

a) Zymase
b) Lactase
c) Phytase
d) All of these

(l) One of the most commonly used fermented cereal amongst these is

a) Wheat
b) Bread
c) Rice
d) Yoghurt

(li) Dosa and Idli are preparations of

a) Wheat flour
b) Rice
c) Rice and Black gram
d) Wheat and Black Gram

(lii) In Dosa preparation , ratio of rice to lentils is generally

a) 3:1-4:1
b) 5:2-7:1
c) 3:4-5:7
d) 4:2-5:4

(liii) The process needed to develop gluten in breads:

a) kneeding
b) cutting
c) blending
d) Folding

(liv) The brine solution containing soybean-flour mixture

a) koji
b) moromi

c) soaking

d) none of these

(lv) Health benefits of Soy sauce

a) good for bones

b) a good supply of tryptophan

c) promotes the production of good cholesterol

d) both (a good supply of tryptophan) and (promotes the production of good cholesterol)

(lvi) The process that produces carbon dioxide gas in breads is

a) kneading

b) evaporation

c) Fermentation

d) leavening process

(lvii) Roles of yeast in bread production

a) It produces CO2

b) Anti-microbial agents are produced

c) Soften bread

d) Ripen bread

(lviii) The seed mold introduced in koji making is called

a) Tane koji

b) Zane koji

c) Sane koji

d) Yen koji

(lix) During koji preparation

a) Moisture lost

b) Salt sedimentation happens

c) Moisture gained

d) Water is produced

(lx) Bread making requires LAB

a) Leuconostoc mesentoroides

b) E. coli

c) Vibrio sp.

d) None of these