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ST - 229

Total No. of Pages : 3

B.Sc. (Food Technology and Management) (Part - I) (Semester - I)
Examination, April - 2018

INTRODUCTION TO FOOD SCIENCE - I (Paper - I) (New)

Sub. Code : 57279

Day and Date : Thursday, 19 - 04 - 2018

Total Marks : 50

Time : 11.00 a.m. to 01.00 p.m.

- Instructions:**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw neat labelled diagram wherever necessary.

Q1) Choose correct alternative from given choices.

[10]

- a) Foods rich in _____ are called as Body Building foods.
- i) Fats
 - ii) Carbohydrates
 - iii) Proteins
 - iv) Minerals
- b) The _____ is the principle Rice Protein.
- i) Casein
 - ii) Gluten
 - iii) Oryzenin
 - iv) Prolamines
- c) _____ is known as finger millet.
- i) Rice
 - ii) Ragi
 - iii) Wheat
 - iv) Bajra
- d) Germ is separated from endosperm by
- i) Bran
 - ii) Scutellum
 - iii) Aleuron layer
 - iv) None of above

P.T.O.

- e) Pulses are deficient in
- i) Lysine
 - ii) Methionine
 - iii) Threonine
 - iv) Thiamine
- f) _____ toxic constituents in pulses cause nervous disease that cripples man.
- i) Trypsin
 - ii) Lathrogens
 - iii) Both
 - iv) None of above
- g) Soyabeans is used to produce _____ to replace meat.
- i) TCP
 - ii) TVP
 - iii) TPV
 - iv) TPW
- h) Soaking of Pulses reduce _____ oligosaccharide.
- i) Raffinose
 - ii) Sucrose
 - iii) Maltose
 - iv) Lactose
- i) _____ are called as one seeded fruits.
- i) Cereals
 - ii) Pulses
 - iii) Nuts
 - iv) None of above
- j) _____ Nut is Rich in Proteins.
- i) Chestnut
 - ii) Cashewnut
 - iii) Groundnut
 - iv) Both i & ii

Q2) Answer the following (Any two)

[20]

- a) Draw & Explain structure of wheat?
- b) Explain Processing of Pulses?
- c) Define Nuts? Give an brief account of Groundnut Products?

Q3) Solve the following (Any four)

[20]

- a) State the functions of food?
- b) Describe the structure of Pulses?
- c) Explain the Role of Nuts in cookery?
- d) Comment on sources of Fats & Oils?
- e) Discuss trypsin Inhibitors?
- f) State Prevention of spoilage of fats & oils?

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B.Sc. F.T.M. (Part - I) (Semester - I) Examination, April - 2018
PRINCIPLES OF FOOD PREPARATION & PRESERVATION - I
(Paper - I)

Sub. Code : 57280

Day and Date : Friday, 20 - 04 - 2018

Total Marks : 50

Time : 11.00 a.m. to 01.00 p.m.

- Instructions :**
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw a neat labelled diagram wherever necessary.

Q1) Choose correct alternative from given choices.

[10]

- a) The temperature for HTST pasteurization is _____.
 - i) 62.8°C
 - ii) 71.7°C
 - iii) 80°C
 - iv) 78°C
- b) Bringing the food product to room temperature is _____.
 - i) Thawing
 - ii) Freezing
 - iii) Cooking
 - iv) Preparation
- c) _____ is a natural preservative.
 - i) Sugar
 - ii) Salt
 - iii) Honey
 - iv) all of above
- d) _____ cooking method involves water & steam.
 - i) Moist heat
 - ii) dry heat
 - iii) Both (i) & (ii)
 - iv) none of these
- e) Fish is an example of _____ food.
 - i) semi perishable
 - ii) Non perishable
 - iii) perishable
 - iv) None of these

P.T.O.

- f) _____ is a cryogenic refrigerant.
- | | |
|-------------|-----------------------|
| i) Nitrogen | ii) Carbon di - oxide |
| iii) Freon | iv) All of above |
- g) The temperature of water in boiling is _____. °C.
- | | |
|------------|-----------|
| i) 120°C | ii) 100°C |
| iii) 200°C | iv) 150°C |
- h) _____ is a dry heat method.
- | | |
|---------------|------------------|
| i) Roasting | ii) Grilling |
| iii) Toasting | iv) All of above |
- i) _____ is an indirect method of freezing.
- | | |
|----------------------|-------------------|
| i) Air blast | ii) Fluidized bed |
| iii) Both (i) & (ii) | iv) None of these |
- j) Antamoeba histolytica is responsible for _____ contamination of food.
- | | |
|----------------|---------------|
| i) Rodent | ii) Insect |
| iii) Microbial | iv) Parasitic |

Q2) Answer the following (any two)

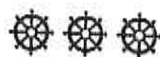
[20]

- Define canning & explain each step.
- Enlist types of cold preservation. Comment on fluidized bed freezing.
- Enlist dry heat methods of cooking. Explain any two in detail

Q3) Solve the following (any four)

[20]

- Give classification of food on basis of function.
- Comment of spoilage of food by temperature.
- State methods of food preservation.
- Write a note on pasteurization of packed foods.
- Describe factors affecting heat resistance.
- Comment on Blanching.



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B.Sc. (Part - I) (Semester - I) Examination, April - 2018
FOOD TECHNOLOGY & MANAGEMENT
Fundamentals of Food Microbiology(Paper - I)
Sub. Code : 57283

Day and Date : Tuesday, 24 - 04 - 2018

Total Marks : 50

Time : 11.00 a.m. to 01.00 p.m.

- Instructions :
- 1) All questions are compulsory.
 - 2) Figures to the right indicate full marks.
 - 3) Draw a neat labelled diagram wherever necessary.

Q1) Choose the correct alternative from given choices:

[10]

- i) Pasteuria is a _____ shaped bacteria.
 - a) Camma
 - b) Pear
 - c) Curved rod
 - d) Ellipsoidal
- ii) Which of the following is a flagellated bacteria?
 - a) Strepto coccus
 - b) Aerobacter
 - c) Pseudomonas
 - d) Vibrio cholerae
- iii) _____ is third amino acid in tetra-peptide side chain of Gram - Positive bacteria.
 - a) L - lysine
 - b) Mesodiaminopimilic acid
 - c) L - alanine
 - d) D - alanine

P.T.O.

- iv) _____ is a prokaryotic organism.
- a) Yeast
 - b) Protozoa
 - c) Bacteria
 - d) Virus
- v) The length of filamentous bacteria exceeds upto _____
- a) 0.5 - 20 μ
 - b) 0.5 - 3.0 μm
 - c) 0.15 - 2.0 μ
 - d) 100 μ
- vi) Which of the following is a macro - nutrient?
- a) Calcium
 - b) Potassium
 - c) Both a & b
 - d) Cobalt
- vii) Alcohol is most effective at _____ concentration.
- a) 90 %
 - b) 70%
 - c) 50%
 - d) 40-60%
- viii) _____ are infolding of cell membrane.
- a) Ribosomes
 - b) Nucleoids
 - c) Mesosomes
 - d) Phospholipids

- ix) Salmonella typhi shows _____ flagellar arrangement.
- a) Peritrichous
 - b) Lophotrichous
 - c) Amphitrichous
 - d) Monotrichous
- x) Who invented streak plate technique?
- a) Joseph lister
 - b) Watson
 - c) Louis Pasteur
 - d) Robert Koch

Q2) Answer the following : (any 2) [20]

- a) What do you mean by cytology of bacteria? Discuss capsule in detail.
- b) Define sterilization. Explain sterilization using filtration and U.V radiations with mechanism.
- c) Draw and discuss cell wall of Gram - positive bacteria in detail.

Q3) Solve the following: (any four) [20]

- a) Give nutritional classification on the basis of carbon & energy source.
- b) What are the contributions of Joseph Lister and Robert Koch?
- c) Elaborate on sterilization using halogens.
- d) Draw and explain structure of flgella.
- e) Describe outer wall layer of Gram - negative, bacterial cell wall.
- f) Write a note on pilli.



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B.Sc. (Part - I) (Semester - I) Examination, April - 2018
Food Technology and Management
FOOD CHEMISTRY - I (Paper - I)
Sub. Code : 57282

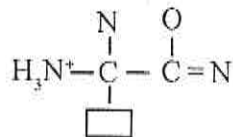
Day and Date : Monday, 23 - 04 - 2018
Time : 11.00 a.m. to 01.00 p.m.

Total Marks : 50

- Instructions :
- 1) All questions are compulsory.
 - 2) Figures to right indicate full marks.
 - 3) Draw neat labeled diagram wherever necessary.

Q1) Select the correct alternative from given choices: **[10]**

- a) Which of the following is not antioxidant?
- i) DHA
 - ii) Tocopherol
 - iii) BHA
 - iv) Lemon juice
- b) Glucose is stored in animal in the form of _____
- i) Glycogen
 - ii) Pectin
 - iii) Cellulose
 - iv) Starch
- c) Which of the following is not insoluble dietary fibre?
- i) Pectin
 - ii) Lignin
 - iii) Cellulose
 - iv) Hemicellulose
- d) Complete the structure of amino acid Alanin



- i) $-\text{CH}_3$
 - ii) $-\text{H}$
 - iii) $-\text{CH}_3 - (\text{CH}_3)_2$
 - iv) $-\text{NH}_3$
- e) Amino acids are joined together by _____ to form proteins.
- i) Sulphurbond
 - ii) Hydrogen bond
 - iii) Peptide bond
 - iv) Glycosidicbond

P.T.O.

- f) Select the odd vitamin out.
- | | |
|------------------|----------------|
| i) Retinoic acid | ii) Thiamine |
| iii) Riboflavin | iv) Pyridoxine |
- g) _____ is obtained in rice husk.
- | | |
|--------------|--------------|
| i) Zein | ii) Casein |
| iii) Keratin | iv) Oryzenin |
- h) The degree of unsaturation in fats can be measured by _____
- | | |
|--------------------|---------------------------|
| i) Peroxide number | ii) Acid number |
| iii) Iodine value | iv) Saponification number |
- i) _____ refers to swelling of starch granules after cooking with water.
- | | |
|---------------------|--------------------|
| i) Steaming | ii) Gelatinisation |
| iii) Retrogradation | iv) Dextrinization |
- j) Vitamin A is also called as _____
- | | |
|------------------|------------------|
| i) Retinoic acid | ii) Retinal |
| iii) Retinol | iv) All of these |

Q2) Answer the following (any 2): [20]

- What is starch? Describe properties of starch.
- Write a note on classification of proteins.
- Write a note on vitamin B complex.

Q3) Solve the following (any 4): [20]

- Write a note on isomerism of carbohydrates.
- Describe protein classification on the basis of chemical composition and solubility.
- Explain functional properties of proteins.
- Describe the functions of carbohydrates.
- Write a short note on rancidity of fats and lipids
- Write a note on vitamin D deficiency diseases.

