

**ST-717**

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**B.Sc. (F.T.M.) (Part-I) (Semester-II) (New)**

**Examination, May - 2019**

**FUNDAMENTALS OF FOOD MICROBIOLOGY - II**

**Sub. Code: 57291**

**Day and Date : Wednesday, 08 - 05 - 2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

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

- a) \_\_\_\_\_ is normal intestinal flora.
- i) Proteus
  - ii) Salmonella
  - iii) E.coli
  - iv) Shigella
- b) Spectrophotometer measures cell growth by \_\_\_\_\_.
- i) Cell mass
  - ii) Cell number
  - iii) Cell division
  - iv) Viability
- c) \_\_\_\_\_ staining is also called 'Relief Staining'.
- i) Positive
  - ii) Capsule
  - iii) Monochroma
  - iv) Negative
- d) Vitamin \_\_\_\_\_ plays important role in fatty acid biosynthesis.
- i) Cabalamine
  - ii) Biotin
  - iii) Thiamine
  - iv) Riboflavin

**P.T.O.**

- e) \_\_\_\_\_ is an enrichment medium for salmonella.
- i) Winogradsky medium
  - ii) Mannitol salt agar
  - iii) Macconkey's agar
  - iv) Tetrathionate broth
- f) Psychrophiles cannot be isolated by \_\_\_\_\_ method.
- i) Pour plate
  - ii) Streak plate
  - iii) Spread plate
  - iv) All of above
- g) The water activity of micro-organisms like bacteria is \_\_\_\_\_.
- i) 1.00
  - ii) 0.85
  - iii) 0.65
  - iv) 0.98
- h) \_\_\_\_\_ is used as mordant in Gram's staining.
- i) Crystal violet
  - ii) Gram's iodine
  - iii) 95% alcohol
  - iv) Safranin
- i) \_\_\_\_\_ is a product of decarboxylation of amino acids.
- i) Methylene blue
  - ii) Urease
  - iii) Peptone
  - iv) Urea
- j) The bacteria that grows well in presence and absence of oxygen is called \_\_\_\_\_.
- i) Facultative anaerobe
  - ii) Micro aerophilic
  - iii) Anaerobic
  - iv) Aerobic

**Q2) Answer the following (Any 2):**

**[20]**

- a) Discuss streak plate and pour plate technique in detail.
- b) Explain Gram's-staining with respect to lipid content theory.
- c) Define living media. Explain types of living media.

**Q3) Attempt the following (any 4):**

**[20]**

- a) Write procedure, advantages and disadvantages of MBRT test.
- b) Give details of Macconkey's agar.
- c) Give mechanism and procedure of cell wall staining.
- d) Comment on 'Lag phase' of bacterial growth curve.
- e) Define peptone. Add about functions of peptone.
- f) Write about mechanism of acid fast staining method.

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**B.Sc. (F.T.M.) (Part- I) (Semester - II) (New)**  
**Examination, May -2019**  
**INTRODUCTION TO COMPUTER (Paper - II)**  
**Sub. Code :57292**

**Day and Date : Thursday, 09 - 05 - 2019****Total Marks : 50****Time : 3.00 p.m. to 5.00 p.m.**

- Instructions :**
- 1) Figures to the right indicate full marks.
  - 2) Draw neat labeled diagrams wherever necessary.

**Q1) Fill in the blanks with correct alternatives. [10]**

- a) A sequence of instructions telling the computer what to do is called a \_\_\_\_\_.
- |                 |              |
|-----------------|--------------|
| i) Program      | ii) Language |
| iii) translator | iv) package  |
- b) A Microsoft windows is \_\_\_\_\_.
- |                      |                      |
|----------------------|----------------------|
| i) Operating system  | ii) Graphics program |
| iii) Word processing | iv) Database program |
- c) Linux is an (a) \_\_\_\_\_ operating system.
- |                |               |
|----------------|---------------|
| i) Open source | ii) Microsoft |
| iii) Windows   | iv) Mar       |
- d) The process of removing unwanted part of an image is called \_\_\_\_\_.
- |               |              |
|---------------|--------------|
| i) Hiding     | ii) Boarding |
| iii) Cropping | iv) Cutting  |

**P.T.O.**

- e) To apply center alignment to a paragraph we can press.
- i) Ctrl+S
  - ii) Ctrl+C
  - iii) Ctrl+C+A
  - iv) Ctrl+E
- f) Text - Styling feature of MS word is \_\_\_\_\_.
- i) Wordcolor
  - ii) Word Font
  - iii) Word Art
  - iv) Word Fill
- g) Which of the following section doesnot exist in slide layout\_\_\_\_\_.
- i) Titles
  - ii) Lists
  - iii) Charts
  - iv) Animations
- h) In which menu can you find features like slide design, slide layout etc\_\_\_\_\_.
- i) Insert Menu
  - ii) Format Menu
  - iii) Tools Menu
  - iv) Slide show menu
- i) Which file format can be added to a power point show
- i) .Spg
  - ii) .gif
  - iii) .wav
  - iv) All
- j) A software which contains rows and columns is called\_\_\_\_\_.
- i) Spreadsheet
  - ii) word
  - iii) Database
  - iv) None

**Q2) Answer the following in brief (any 2).**

**[20]**

- a) Explain the charts with the help of diagrams and example.
- b) What is power point presentation? Explain the steps for creating a basic presentation with the help of diagram?
- c) Define operating systems? Explain the functions of operating system.

**Q3)** Answer the following in short (any 4)

- a) Explain the characteristics of operating system.
- b) Explain the concept of Browsing and mailing.
- c) Explain the concept of table in MS-Word.
- d) What is animation? give the steps to create an animation in power point.
- e) Explain the concept of cut, Copy. Paste.
- f) What is Internet?







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**B.Sc. (F.T.M.) (Part-I) (Semester-II) (New)**  
**Examination, May - 2019**  
**COMMUNICATION & SOFT SKILLS**  
**Sub. Code: 57286**

**Day and Date : Thursday, 02 - 05 - 2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

**Q1) Multiple choice questions:**

**[10]**

- a) Screening is a part of \_\_\_\_\_.
- i) Discussion
  - ii) Communication
  - iii) Interview
  - iv) Speech
- b) \_\_\_\_\_ is a specialized form of advice.
- i) Motivation
  - ii) Counseling
  - iii) Communication
  - iv) Instruction
- c) A key to successful group Discussion is
- i) Knowledge of Subject
  - ii) Communication
  - iii) Non Verbal Communication
  - iv) All of the above

**P.T.O.**

- d) I must go \_\_\_\_\_ this morning.
- i) College
  - ii) To College
  - iii) For College
  - iv) At College
- e) The tea is too hot \_\_\_\_\_.
- i) for drink
  - ii) to drink
  - iii) for drinking
  - iv) too drink
- f) \_\_\_\_\_ is given to the large gathering.
- i) Conference
  - ii) Interview
  - iii) Counseling
  - iv) Visit
- g) \_\_\_\_\_ are channel of communication.
- i) conference
  - ii) meeting
  - iii) both (i) & (ii)
  - iv) none of the above
- h) In \_\_\_\_\_ Communication is almost face to face.
- i) E-Mail
  - ii) Communication
  - iii) Internet
  - iv) Video Conferencing
- i) Gestures are \_\_\_\_\_ communication.
- i) written
  - ii) non-verbal
  - iii) verbal
  - iv) oral
- j) Communication should start with \_\_\_\_\_.
- i) Greeting
  - ii) Question
  - iii) Remark
  - iv) None of the above

**Q2)** Write short notes (any four):

- a) Explain the role of body language while delivering the speech.
- b) Write a note on seminar.
- c) Write a note on Web Cast.
- d) Write a note on types of interview.
- e) Explain any five steps of speech presentation.
- f) Write a note on Diet Counseling.

**Q3)** Answer the following: (any two)

**[20]**

- a) What is mean by Group discussion? Explain Dos & Don'ts of Group discussion.
- b) Write a detail note on video conferencing with the help of tree diagram.
- c) Explain the various techniques of interview.





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**B.Sc. (F.T.M.) (Part - I) (Semester - II) (New)**  
**Examination, May - 2019**  
**INTRODUCTION TO FOOD SCIENCE - II**  
**Sub. Code : 57287**

**Day and Date : Friday, 03 - 05 - 2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

**Q1) Choose the correct alternative from given choices.**

**[10]**

- a) Raddish is \_\_\_\_\_ vegetables.
- i) Cole
  - ii) Root
  - iii) Tuber
  - iv) Fruit
- b) Garlic contains \_\_\_\_\_ as sulphur containing group.
- i) Allicin
  - ii) Aril
  - iii) Crocein
  - iv) Curcumin
- c) \_\_\_\_\_ is a well known substituent for coffee.
- i) Tannin
  - ii) Catechin
  - iii) Tea
  - iv) Chicory
- d) \_\_\_\_\_ is used in manufacture of wine.
- i) Saccharomyces cerevisae
  - ii) Saccharomyces ellipsoideus
  - iii) Lactobacillus brevis
  - iv) Streptococcus lactis
- e) \_\_\_\_\_ provides pleasant aroma to beer.
- i) Hops
  - ii) Wort
  - iii) Malt
  - iv) Mash
- f) Wine containing 9-16% alcohol is called as \_\_\_\_\_ wine.
- i) Light
  - ii) Strong
  - iii) Champaigne
  - iv) Medium

**P.T.O.**

- g) Apricot is \_\_\_\_\_ fruit.
- |              |            |
|--------------|------------|
| i) Pomes     | ii) Drupes |
| iii) Berries | iv) Melons |
- h) \_\_\_\_\_ is/are principal acid in grapes.
- |                  |                     |
|------------------|---------------------|
| i) Tartaric acid | ii) Malic acid      |
| iii) Acetic acid | iv) Both (i) & (ii) |
- i) The pungency of chillies is due to \_\_\_\_\_.
- |                |              |
|----------------|--------------|
| i) Curcumin    | ii) Allicin  |
| iii) Capsaicin | iv) Capsicum |
- j) Carrots are rich sources of vitamin \_\_\_\_\_.
- |        |       |
|--------|-------|
| i) C   | ii) B |
| iii) K | iv) A |

**Q2) Answer the following (any 2)**

**[20]**

- Define beer. Describe manufacturing process of beer.
- Discuss processing & uses of Cardamom and Turmeric.
- Explain composition & nutritive value of vegetables.

**Q3) Attempt the following (any 4)**

**[20]**

- Write about storage of fruits.
- Explain examples of tuber vegetables.
- Give detail classification of spices.
- Comment on 'Black Tea'.
- Give role of ingredients in soft drinks.
- Write flowsheet for canning of tomatoes. Add a note on peeling of tomatoes.





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**B.Sc. (F.T.M.) (Part-I) (Semester-II) (New) Examination, May- 2019**  
**PRINCIPLES OF FOOD PREPARATION & PRESERVATION-II**  
**Sub. Code: 57288**

**Day and Date : Saturday, 04 - 05 - 2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

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

- a) HPP means \_\_\_\_\_.
  - i) Heat Pressure
  - ii) High permit Processing
  - iii) High Pressure processing
  - iv) None
- b) \_\_\_\_\_ is technically known as cryodesiccation.
  - i) Spray dryer
  - ii) Vaccum belt dryer
  - iii) Drum dryer
  - iv) freez dryer
- c) \_\_\_\_\_ type of rays have excellent penetration power hence extensively used in food irradiation.
  - i) Microwaves
  - ii) UV-rays
  - iii) Gamma rays
  - iv) Infrared
- d) In \_\_\_\_\_ type of dryer additional heat is supplied by infrared lamps.
  - i) Tunnel dryer
  - ii) Contineous vaccum belt dryer
  - iii) Vaccum shelf dryer
  - iv) Air-lift dryer
- e) \_\_\_\_\_ method of novel food processing is also known as Joule heating.
  - i) Ohmic heating
  - ii) Infrared heating
  - iii) Dielectric heating
  - iv) All of above

**P.T.O.**

- f) \_\_\_\_\_ are the sources of contamination within human body.
- i) Hands
  - ii) Skin
  - iii) Nose
  - iv) All of above
- g) Medium Dose application of irradiation is \_\_\_\_\_.
- i) Below 1 kGy
  - ii) 1-10 kGy
  - iii) Above 10 kGy
  - iv) None
- h) \_\_\_\_\_ part of spray dryer converts milk into fine mist.
- i) Vacuum pump
  - ii) Atomizer
  - iii) Doctor blade
  - iv) None
- i) Pressure needed in HPP for food processing is \_\_\_\_\_.
- i) 200 - 800 mPa
  - ii) 100-500 mPa
  - iii) 800-1000 mpa
  - iv) 1000-1500 mpa
- j) "RADURA" Logo stands for \_\_\_\_\_.
- i) Dehydrated foods
  - ii) Irradiated foods
  - iii) Frozen foods
  - iv) Pasteurized foods

**Q2) Answer the following (any two)**

[20]

- Define dehydration. Enlist names of dryers & explain any two of them.
- Explain in detail applications of food irradiation.
- What is the need of food hygiene & sanitation of write general hygiene practices.

**Q3) Answer the following (Any four)**

[20]

- Write a note on Hurdle technology.
- Which are the pretreatments given to food before drying.
- Differentiate between Dielectric, Ohmic & Infrared heating.
- State mode of action of Radiation.
- Comment on ohmic heating.
- How to maintain Hygiene during processing.





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**Total No. of Pages : 2**

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**B.Sc. (F.T.M.) (Part - I) (Semester - II) (New)**

**Examination, May - 2019**

**HUMAN PHYSIOLOGY - II**

**Sub. Code : 57289**

**Day and Date : Monday, 6-5-2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

**Q1) Choose the correct answers from the given choices : [10]**

- a) The soft fleshy projection that hangs from the middle of roof of oral cavity is called \_\_\_\_\_.
  - i) Epiglottis
  - ii) Uvula
  - iii) Gums
  - iv) Tongue
- b) The enzyme secreted by gastric glands, which is active in infants is \_\_\_\_\_.
  - i) Pepsin
  - ii) Trypsin
  - iii) Renin
  - iv) Chymotrypsin
- c) \_\_\_\_\_ help in the maintainance of blood sugar level constant.
  - i) Insulin
  - ii) glucagon
  - iii) Both
  - iv) None
- d) The another name for hormones is \_\_\_\_\_.
  - i) Amines
  - ii) Steroids
  - iii) Chemical messengers
  - iv) Biocatalyst
- e) Acromegaly refers to the excess secretion of \_\_\_\_\_.
  - i) Thyroxine
  - ii) Calcitonin
  - iii) Gastrin
  - iv) Growth hormone
- f) Following includes the Gastro-intestinal hormone.
  - i) Gastrin
  - ii) Secretin
  - iii) Cholecysto Kinin
  - iv) All above

**P.T.O.**



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Total No. of Pages : 3

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**B.Sc. (F.T.M.) (Part-I) (Semester - II) (New)**

**Examination, May-2019**

**FOOD CHEMISTRY - II**

**(Paper - II)**

**Sub. Code : 57290**

**Day and Date : Tuesday, 7 - 05 - 2019**

**Total Marks : 50**

**Time : 3.00 p.m. to 5.00 p.m.**

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

**Q1) Choose the correct alternatives from given choices.**

**[10]**

- a) Water accounts for \_\_\_\_ of total body weight.
- i) 55 – 70%
  - ii) 30 – 40%
  - iii) 70 – 80%
  - iv) None of these
- b) \_\_\_\_ mineral is majorly present in extracellular fluid.
- i) Copper
  - ii) Calcium
  - iii) Sodium
  - iv) Potassium
- c) \_\_\_\_ increases BMR.
- i) Anxiety
  - ii) Fever
  - iii) Pregnancy
  - iv) All of above
- d) \_\_\_\_ retains moisture in food products
- i) Humectants
  - ii) Stabilizers
  - iii) Emulsifiers
  - iv) Anti - caking agent

**P.T.O.**

- e) Non-perishable foods contain \_\_\_\_ moisture
- i)  $> 80\%$
  - ii)  $50\%$
  - iii)  $< 20\%$
  - iv) None of these
- f) \_\_\_\_ is / are major minerals.
- i) Calcium
  - ii) Sodium
  - iii) Sulphar
  - iv) All of above
- g) \_\_\_\_ decreases water activity.
- i) Salt
  - ii) Sugar
  - iii) Spices
  - iv) Both (i) & (ii)
- h) \_\_\_\_ mineral is constituent of thyroxine hormone.
- i) Iodine
  - ii) Iron
  - iii) Fluorine
  - iv) Zinc
- i) Carbohydrates gives \_\_\_\_ kcal.
- i) 9
  - ii) 7
  - iii) 4
  - iv) None of these
- j) Water activity of pure water is \_\_\_\_
- i) 0.9
  - ii) 1.5
  - iii) 0.68
  - iv) 1



**Q2) Answer the following (Any Two)**

- a) Define minerals and explain classification, functions of minerals.
- b) Write in detail excess and deficiency of water.
- c) Define preservatives and write in detail about class. II preservatives.

**Q3) Attempt the following (Any four)**

**[20]**

- a) Comment on chelating agents.
- b) Write a note on thermic effect of food.
- c) Enlist type of water in food and explain
- d) Comment on 'Total Energy Requirement.
- e) Write functions deficiency and sources of sodium.
- f) Draw neat labelled diagram of bomb calorimeter

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