

Write the following information in the first page of Answer Script before starting answer

**ODD SEMESTER EXAMINATION: 2020-21**

Exam ID Number \_\_\_\_\_

Course \_\_\_\_\_ Semester \_\_\_\_\_

Paper Code \_\_\_\_\_ Paper Title \_\_\_\_\_

Type of Exam: \_\_\_\_\_ (Regular/Back/Improvement)

**Important Instruction for students:**

1. Student should write objective and descriptive answer on plain white paper.
2. Give page number in each page starting from 1<sup>st</sup> page.
3. After completion of examination, Scan all pages, convert into a single PDF, rename the file with Class Roll No. (2019MBA15) and upload to the Google classroom as attachment.
4. Exam timing from 10am – 1pm (for morning shift).
5. Question Paper will be uploaded before 10 mins from the schedule time.
6. Additional 20 mins time will be given for scanning and uploading the single PDF file.
7. Student will be marked as ABSENT if failed to upload the PDF answer script due to any reason.

**B.Sc. FOOD SCIENCE & TECHNOLOGY**  
**THIRD SEMMESTER**  
**CEREALS, PULSES & OILSEEDS TECHNOLOGY**  
**BFST – 302**

Duration : 3 hrs.

Full Marks : 70

( PART-A: Objective )

Time : 20 min.

Marks : 20

***Choose the correct answer from the following:***

***1×20=20***

1. Pasta products are prepared from.....
  - a. Buckwheat
  - b. Soft wheat
  - c. Hard wheat
  - d. Durum wheat
2. Which protein fraction constitutes gluten .....
  - a. Prolamins and proteoses
  - b. Glaidin and Zein
  - c. Glaidin and glutenin
  - d. Prolamin and Gliadin
3. Botanical name of hard wheat is .....
  - a. *Triticum monococcum*
  - b. *Triticum durum*
  - c. *Triticum aestivum*
  - d. *Triticum dicoccum*
4. Rice is used in the preparation of the.....
  - a. *Sake*
  - b. Gin
  - c. *Brandy*
  - d. Beer
5. ....accelerates oxidation of fats and oils.
  - a. Metals
  - b. Temperature
  - c. Both A and B
  - d. None of the above
6. Soya chunks are the example of .....
  - a. Meat analogues
  - b. Meat extenders
  - c. Both A and B
  - d. None of the above
7. The protein complex formed during dough formation of hard wheat which is responsible for the bread making characteristics of the dough is.....
  - a. Zein
  - b. Gluten
  - c. Oryzenin
  - d. Glutenin
8. Gluten which is formed in dough is.....
  - a. Sticky
  - b. Rubbery and elastic
  - c. Tough
  - d. Both a and c

9. The speed of agitator remains ..... for bleaching during refining of oils
  - a. High
  - b. Slow
  - c. Medium
  - d. Remains constant
10. Percentage of germ present in cereal grains is .....
  - a. 1-2
  - b. 80-85
  - c. 2-5
  - d. 10-20
11. Starch in highest amount in cereal grains present in ..... region
  - a. Bran
  - b. Endosperm
  - c. Germ
  - d. Hull
12. Bitterness in beer is due to the addition of .....
  - a. Barley
  - b. Hops
  - c. Both
  - d. None of the above
13. Strong gluten absorbs ..... amount of water.
  - a. Less
  - b. Same
  - c. High
  - d. None of the above
14. ....acts as an shortening agents in bakery products.
  - a. Wheat
  - b. Fats
  - c. Water
  - d. Egg
15. For irregular shaped grains , the angle of repose is .....
  - a. Low
  - b. Same
  - c. High
  - d. None of the above
16. ....is used to remove bran from the rice
  - a. Husking
  - b. Bleaching
  - c. Polishing
  - d. None of the above
17. Pigments in most of the cereal grains are found in ..... Region.
  - a. Aleurone layer
  - b. Testa
  - c. Germ
  - d. Endosperm
18. .... is present in Maize.
  - a. Glaidin and Zein
  - b. Glaidin and prolamine
  - c. Prolamin and proteose
  - d. Zein
19. Falling number is used to observe ..... of wheat
  - a. Water absorption capacity
  - b. Extensibility
  - c. Elasticity
  - d. Alpha amylase activity
20.  $\beta$  - D- glucans are found in .....
  - a. Wheat
  - b. Barley
  - c. Rice
  - d. Corn

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**( PART-B : Descriptive )**

Time : 2 hrs. 40 min.

Marks : 50

*[ Answer question no.1 & any four (4) from the rest ]*

1. How will you explain rheology of dough. 10
  
2. Write down the mechanism of all the machineries used in rice milling 10
  
3. How angle of repose is affected by shape of the material. Explain it. 2+8=10  
How would you assess quality of flour.
  
4. Describe how the protein isolates are different from protein concentrates. Write down their processing 3+7=10
  
5. Write down the mechanism of oxidative and hydrolytic mechanism. How will you prevent an oil from being deteriorated. 7+3=10
  
6. After harvesting of sunflower and groundnut from the field, what are the different processing techniques you will suggest as a food technician to give value to the product, Explain. 10
  
7. Is the bread and cake made up of same type of flour? If Yes, why or if No, why? Explain it with proper reasons. 5+4+1=10  
What is the significance of alpha amylase activity in the production of bakery products. Name an instrument used to measure it.
  
8. Write down the working mechanism of different types of grinding machines. 10

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