

B. Sc. FOOD SCIENCE & TECHNOLOGY
4TH SEMESTER
POST HARVEST TECHNOLOGY
BFST - 404 (Op)

Duration: 3 Hrs.

Marks: 70

{ Part : A (Objective) = 20 }
{ Part : B (Descriptive) = 50 }

[PART-B : Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

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

1. Discuss the various factors responsible for deterioration of post harvested produces. 10
2. Define precooling of fresh produce. What are the different methods of precooling? Enlist its benefits. Explain about vacuum and hydro cooling citing the examples. 1+2+2+5
=10
3. Explain the harvesting and threshing of cereals grains and also discuss the problems associated with grain storage. 10
4. Write the properties of a 'good packaging material'. Discuss the significance of CAP and MAP in post harvest treatment of agricultural produces. 4+6=10
5. Write the names of physiological disorders associated with fruits and vegetables storage and also discuss the chemical treatment used in it. Explain the role of sprouting inhibitors 10
6. Write about the climacteric and non climacteric fruits ripening and discuss the ripening agents and their effects on human health. Enlist the changes occur in ripening. 5+5=10
7. List down the names of different techniques used in post harvest treatment and explain in a brief about the techniques. 10
8. Write short notes on- 2.5x4=10
(a) Vapour heat treatment (b) Degreening
(c) Hypobaric treatment (d) Curing

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[PART-A : OBJECTIVE]

Choose the correct answer from the following:

1X20=20

1. Unit of Irradiation is
a. Gray
b. Kilogray
c. Rad
d. All
2. The best suited temperature for banana storage is
a. 8 degree
b. 10 degree
c. 13 degree
d. 15 degree
3. Which of following fruit does not have starch in it
a. Pineapple
b. Apple
c. Sapota
d. None
4. Following has the lowest respiration rate
a. Dates
b. Potato
c. Cabbage
d. Sweet corn
5. Commercial maturity is also called
a. Physiological maturity
b. Horticultural maturity
c. Crop maturity
d. None
6. Vacuum cooling is most suitable for
a. Fruits
b. Fruits vegetables
c. Root vegetables
d. Leafy vegetables
7. Respiration rate is measured in
a. $\text{mgCO}_2\text{kg}^{-1}\text{h}^{-1}$
b. $\text{mgO}_2\text{kg}^{-1}\text{h}^{-1}$
c. $\text{mgCOkg}^{-1}\text{h}^{-1}$
d. $\text{mgC}_2\text{H}_4\text{kg}^{-1}\text{h}^{-1}$
8. Which one of the following is ripening hormone ?
a. Ethylene
b. Cytokinin
c. Gibberalin
d. None of the above
9. Which one of the following is used as ripening indicator?
a. Methyl orange
b. Phenolphthalein
c. Iodine
d. None of the above
10. King of fruit is
a. Banana
b. Mango
c. Guava
d. None
11. The use of Calcium carbide (CaC_2) in ripening of fruits is banned because of its
a. High price
b. Health hazards in human
c. Both
d. None
12. Maturity index for Avocado is-
a. Sugar content
b. TSS
c. Oil content
d. Acid content
13. As fruits mature, the specific gravity will-
a. Increase
b. Decreases
c. Remain constant
d. Show no definite pattern
14. According to perish ability classification, Potato can be placed at-
a. Non perishable
b. Semi perishable
c. Highly perishable
d. Perishable

15. An example of physiological method of maturity determination could be-

- a. Determining starch content
- b. Monitoring ethylene evolution
- c. Measuring bioelectrical conductance
- d. Measuring skin puncture force

16. Refract meter is used for measuring-

- a. Acid
- b. Salt
- c. TSS
- d. Fibre

17. Enzyme responsible for converting pectinic acid to pectic acid during cell wall degradation is-

- a. Polygalacturonase
- b. Protopectinase
- c. Pectin methyl esterase
- d. Pectinase

18. Pulsing method is used in

- a. Fruits
- b. Vegetables
- c. Flowers
- d. All

19. Which refrigerant is used in cold storage?

- a. Nitrogen gas
- b. CFC
- c. Both
- d. None

20. Which one of the following is a low cost storage unit?

- a. CAP
- b. MAP
- c. Both
- d. None

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UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



Question Paper CUM Answer Sheet

PART (A) : OBJECTIVE

Serial no. of the main Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2016-17 Date :

Instructions / Guidelines

- > The paper contains twenty (20) / ten (10) questions.
- > The student shall write the answer in the box where it is provided.
- > The student shall not overwrite / erase any answer and no mark shall be given for such act.
- > Hand over the question paper cum answer sheet (Objective) within the allotted time (20 minutes / 10 minutes) to the invigilator.

Full Marks	Marks Obtained	Remarks
20		

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature