



**KERALA AGRICULTURAL UNIVERSITY**  
**B.Tech.(Food Engg.)2014 Admission**  
**VII Semester Final Examination-January-2018**  
**Storage and Preservation Technology (1+1)**

Fdpr.4107

**Marks:50**  
**Time: 2 hours**  
**(10x1=10)**

**I Fill in the blanks:**

- 1 Which of the following is non-fumigant pesticide? .....  
a Methyl bromide    b Pyrethrin    c Phosphine    d Sulfuryl fluoride
- 2 Which statement is correct? .....  
Statement 1: Time is an important parameter for the growth of spoilage organisms.  
Statement 2: Temperature is an important parameter for the growth of spoilage organisms  
a 1                      b 1 & 2                      c 0                      d 2
- 3 During controlled atmospheric storage, composition of which of the following set of gases is controlled: .....  
a  $O_2 + N_2$                       b  $CO_2 + N_2$                       c  $C_2H_4 + N_2$                       d  $CO_2 + O_2$
- 4 Which chemical is used for controlling sprouting of onions in storage?.....  
a Maleic Hydrazide(MH)    b Ethylene ( $C_2H_4$ )    c Gibberellic Acid(GA)    d All of these
- 5 Vertical grain storage bins and silos with rapid grain transfer systems:.....  
a Provide an opportunity for automated fumigant application  
b Can not be legally fumigated  
c Can only utilize liquid fumigants  
d Can only be fumigated during July
- 6 Amount of time a food can be stored and remain fresh:.....  
a Shelf life                      b Irradiation                      c Danger zone                      d Radura
- 7 Which statement applies to pre-harvest preparation for storage in grain bins and elevators?  
a If an insect infestation is found, fumigate  
b Immediately, inspect grain if snow melts quickly from unheated roof.  
c Bins and adjacent structures should be thoroughly clean  
d Use separate bins for "dry" and "wet" grain
- 8 Moisture content in dried vegetable is .....  
a 2%                      b 3%                      c 5%                      d 6%
- 9 Anti-darkening treatment used on some fruits before drying.....  
a Sulfuring                      b Autoclaving                      c Salting                      d Blanching
- 10 A type of food preservation technique that involves sealing food in sterilized, airtight containers:.....  
a Irradiating                      b Freezing                      c Drying                      d Canning

**II Write Short notes on ANY FIVE of the following**

**(5x2=10)**

- 1 What are the major factors that cause food spoilage?
- 2 Define fumigation
- 3 What is Hapur bin?
- 4 Write the importance of rodent proof food storage structures
- 5 Define fruit ripening.
- 6 Briefly describe about the use of modified atmosphere packing.
- 7 What is LDPE?

PTO

**III Answer ANY FIVE of the following (5x4=20)**

- 1 Briefly describe about warehouse for bulk storage of food grains
- 2 Describe the four major disadvantages of modified atmosphere storage of foods
- 3 Write four important properties of refrigerants?
- 4 Briefly describe about packing materials and properties in food storage.
- 5 Describe the concept of evaporative cooling for fruits and vegetables
- 6 What are the advantages of aluminium packing?
- 7 Describe direct and indirect actions of irradiation on stored foods.

**IV Write an essay on ANY ONE of the following (1x10=10)**

- 1 Elaborate the bulk storage structure of silo with a schematic diagram.
- 2 Elaborate the modified atmosphere packing for processed foods

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