

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) A.B.M.

Semester	: VI (New)	Term	: Second	Academic Year	: 2022-23
Course No.	: ENGG 363	Title	: Post-harvest Physiology of Market Produce		
Credits	: 3 (2+1)	Time	: 14:00 to 17:00 hrs.	Total Marks	: 80
Day & Date	: Tuesday, 04.07.2023				

- Note :
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 Explain the pre-harvest factors affecting post-harvest quality of market produce.
- Q.2 a) Write down the scope of post-harvest physiology.
b) Explain in short the impact of post-harvest losses on market economy.
- Q.3 Explain the different physiological practices to enhance post-harvest storability of horticultural produce.
- Q.4 Write in brief the causes of post-harvest losses of fruits and vegetables.
- Q.5 Explain the maturity indices for harvesting the horticultural produce.
- Q.6 Define ripening and explain the differences between climacteric and non-climacteric fruits with examples.
- Q.7 a) Write down in short about the practices for retention of quality of cut flowers and ornaments.
b) Explain in short about the chilling injuries of the horticultural produce.
- Q.8 Define packaging and give the qualities of ideal package for fruits and vegetables.
- Q.9 Explain controlled and modified atmospheric storage for horticultural produce.
- Q.10 Explain the cold storage and refrigerated transport technology for fruits and vegetables.

SECTION 'B'

- Q.11 Match the pairs:

'A'

- 1) Swollen leaf base
- 2) Leaves only
- 3) Fleshy fruits with single seed (drupe)
- 4) Fused mass comprising unfertilized flower parts and main flower stalk
- 5) Fleshy fruits with several seeds
- 6) Immature green pods with partly developed seed
- 7) Root tuber
- 8) Massed flower heads

'B'

- a) Sweet Potato
- b) Onions (including dry bulb onions)
- c) Cauliflower
- d) Spinach
- e) Mango
- f) Pineapple
- g) Tomato
- h) Green beans

(P.T.O.)

Q.12 State True or False:

- 1) Respiration plays a very significant role in the post-harvest life of the fruits.
- 2) Choking in banana is caused by low temperature during flower formation.
- 3) Most of the horticulture produce contains 65 to 95 per cent water, when harvested.
- 4) A 10°C increase in temperature will cause fruits and vegetables to deteriorate twice as fast, as well as encourage disease causing organisms to grow twice as fast.
- 5) The ethylene concentration applied for the ripening of different fresh produce, is within the range of 1 to 200 ppm.
- 6) Discoloration, skin pitting and abnormal ripening are the symptoms of mechanical injury to fresh produce.
- 7) It is recommended that fungicides should be applied within 24 hours after harvest of fresh produce, so that infections can be controlled before they are established.
- 8) Calcium has been associated with many deficiency-disorders in fruits and vegetables than any other nutrients.

