

Total No. of printed pages = 4

END SEMESTER EXAMINATION – 2019

Semester – 5th

Subject Code : FPT-504

FOOD STORAGE AND PACKAGING

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

GENERAL INSTRUCTIONS :

1. Illustrate your answers with suitable sketches and examples wherever necessary.
2. Make suitable assumption(s) wherever applicable.
3. Preferably write the answers with sequential order.

PART – A

Marks – 25

1. Write the full names of the following packaging materials : 8
(a) LDPE, (b) HDPE, (c) PET, (d) HIPS,
(e) PP, (f) PVC, (g) EVA, (h) OPP.

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2. Answer the following short questions : $1 \times 7 = 7$

- (a) What is shelf life of food ?
- (b) How aseptic package integrity is evaluated ?
- (c) Why vacuum packaging is useful for fresh food ?
- (d) Why refrigerated storage of food improves shelf life ?
- (e) Why MAP is useful ?
- (f) Mention the name of any "active packaging system".
- (g) What packaging laminate is suitable for breakfast cereals ?

3. Match the matters of Column-A with Column-B : $1 \times 10 = 10$

Column-A	Column-B
(i) Enzymatic browning	(a) MAP, MPFVs
(ii) Non-enzymatic browning	(b) Pigment of fresh meat
(iii) <i>Clostridium botulinum</i>	(c) Lipid oxidation
(iv) Decay control	(d) Dairy and flesh food
(v) UHT milk	(e) Maillard reaction
(vi) Rancid flavor and fat bloom	(f) KMnO ₄ with inert substrate filled in sachet to use inside package

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(2)



Column-A	Column-B
(vii) Vacuum packaging	(g) Lethal food poisoning
(viii) Myoglobin	(h) Polyphenol oxidase
(ix) Packaging of horticulture products	(i) Fumigation
(x) Ethylene adsorber	(j) Aseptic packaging.

PART - B

Marks - 45

Answer any three questions : $10 \times 3 = 30$

- (a) Discuss packaging of dairy products.
- (b) Write about packaging of beverages like coffee, tea, fruit juice, carbonated soft drink specifically mentioning the name of packaging materials.
- (c) Briefly discuss about 'Active packaging system' specifically mentioning oxygen scavengers, ethylene scavenger, moisture absorber etc.
- (d) Write about suitable packaging laminates for breakfast cereals, snacks, biscuits etc. and also mention which parameters guide these factors.

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5. Write short notes on any *two* : $7\frac{1}{2}+7\frac{1}{2}=15$

(a) Deteriorative reaction in food

(b) Aseptic packaging system

(c) MAP.

