



KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Technology) 2022 Admission
III Semester Final Examination – February 2024

Pafe.2116

Fundamental Unit Operations in Food processing (2+1)

Marks: 50
Time: 2 hours

I Answer the following

(10x1=10)

1. Write the Rittinger's law.
2. What is the size reduction mechanism in crushers?
3. What is screening?
4. Name the mixers for dry powders.
5. What is the use of clarifiers?
6. What is the filtration?
7. What is extrusion cooking?
8. Name the materials used for ultra filtration membranes.
9. Write the applications of reverse osmosis in food processing.
10. Write the uses of per-evaporation.

II Write short notes on ANY FIVE of the following

(5x2=10)

1. Write the benefits of size reduction.
2. Explain the working of attrition mills.
3. Write the criteria of mixer effectiveness.
4. Explain the working of kneaders.
5. Explain the working of hydro clones.
6. Explain the working of air filters.
7. Explain the electro-dialysis process.

III Answer ANY FIVE of the following

(5x4=20)

1. Explain the working of jaw crushers.
2. Explain the working of fluid jet pulverizer.
3. Explain the working of paddle agitators.
4. Explain the liquid-solids separations using centrifugation technique.
5. Derivation of volumetric flow rate equation for constant-pressure filtration process.
6. Explain the working of plate and frame filter press.
7. Explain the working of microfiltration process.

IV Write an essay on ANY ONE of the following

(1x10=10)

1. Briefly explain the working of rotary filters with a neat figure.
2. Briefly explain the mixers for high viscosity liquids.
