Reg. No. : | | | | | | | | | | |

Question Paper Code: 59713

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Agriculture Engineering

19UAG302 – UNIT OPERATIONS IN AGRICULTURAL PROCESSING

(Regulation 2019)

Duration: One hour Maximum: 30Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Convert 10 grams into pounds CO1- R

   (a) $2.2 * 10^{-2}$ (b) $2.2*10^{-3}$ (c) $2.2*10^{-4}$ (d) $4.5*10^{-2}$

2. Solids concentration will be _____ in water than wastewater CO1- R

   (a) more (b) less (c) equal to (d) similar

3. Solids will settle in a liquid whose density is _____ than their own CO2-R

   (a) Less (b) Greater (c) Equal (d) Similar

4. In sedimentation, the particles fall from rest due to CO2- R

   (a) drag force (b) force of gravity (c) stokes law (d) none of the above

5. The unit operation that prevents fat globules from coalescing into cream is called CO3- R

   (a) kg m^2 (b) kg/m^2 (c) kg/m (d) m^2/kg

6. Vitamins and Minerals added to the ground meal is known as CO3- R

   (a) $b^3/4$ (b) $b^4/12$ (c) $b^4 4/3$ (d) $b^4/8$

7. Chlorinated hydrocarbon is a CO4- R

   (a) Solute (b) Solvent (c) Solution (d) none of the above

8. When a saturated solution is cooled it becomes CO4- R

   (a) super cooled liquid (b) super saturation solution

   (c) double saturated solution (d) none of the above

9. Nucleation rate is increased by CO5- R

   (a) Temperature (b) Agitation (c) Both (a) and (b) (d) None of the above

10. The driving force for the crystals growth is CO5- R

(a) Concentration (b) Agitation (c) Temperature (d) All the above

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11.	Explain about the single and multiple effect evaporator.	CO1- U	(8)
12.	Demonstrate about any two equipments used in filtration technique.	CO2- U	(8)
13.	Explain and sketch any three milling equipments with their construction and operation methodology.	CO3- U	(8)
14.	Briefly explain about the solvent extraction of oil from pepper corns.	CO4- U	(8)
15.	Demonstrate the operation and process of batch distillation with its advantages and limitations.	CO5- U	(8)