

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Summer 2018-19 Examination

Semester: 4
Subject Code: 03110255
Subject Name: Engineering Properties of Biological
Material and Food quality

Date: 08/05/2019
Time: 02:00pm to 04:30pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions (All are compulsory) (Each of one mark).**(15)**

1. Terminal velocity isProperty.
(a) Frictional
(b) Aerodynamic
(c) Physical
(d) None
2. Roundness is a measure of
(a) overall sphericity of a commodity
(b) Sharpness of corners of a commodity
(c) How close the commodity is to a circle
(d) How close the commodity is to a sphere
3. FPO stands for.....
(a) Fruit Product order
(b) First Product order
(c) Firm Product order
(d) None of the above
4. Anemometer is used to measure for.....
(a) drag coefficient
(b) Terminal velocity
(c) Frictional property
(d) None of the above
5. Unit of Volume is.....
(a) cm^2
(b) m^3
(c) g/cm^3
(d) None
6. Formula for Density
7. Pycnometer is used to measure
8. Degree of excellence is called as.....
9. AGMARK Law year establishment.....
10. Moisture content (wet basis) formula.....
11. PFA Law is applicable for fruit juices. **True/False**
12. The strength of the force is directly proportional to Viscosity. **True/False**
13. Reynolds Number states that flow patterns of different fluids. **True/False**
14. Specific Gravity is the ratio of density. **True/False**
15. Toluene is used for finding terminal velocity. **True/False**

- Q.2** Answer the following questions. (Attempt any three) **(15)**
- A) Write short note on measurement of colour?
 - B) Write short note on objective of texture measurement?
 - C) Write short note on HACCP?
 - D) Write short note on aerodynamic properties?
- Q.3** A) Explain “Food Grades and standards in India?” **(07)**
- B) Elaborate on importance of Engineering Properties in designing of agricultural machines? **(08)**
- OR**
- B) Write short note on sanitation in food industry? **(08)**
- Q.4** A) Write Short note on rheological characteristics? **(07)**
- OR**
- A) Write down sampling techniques and requirement procedure for liquid? **(07)**
- B) Explain scope and importance of quality, quality control? **(08)**