

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2022  
(Second Semester)

Branch – FOOD PROCESSING TECHNOLOGY

UNIT OPERATIONS IN FOOD PROCESSING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Identify the indirect method of moisture determination
  - (i) Hot air oven
  - (ii) Mass spectrometry
  - (iii) Vacuum oven
  - (iv) Infrared drying
2. Freeze drier works on the principle of
  - (i) Radiation
  - (ii) Distillation
  - (iii) Evaporation
  - (iv) Sublimation
3. Pick out the separator used to segregate round seeds from other grains
  - (i) Spiral
  - (ii) Cylindrical
  - (iii) Magnetic
  - (iv) Inclined belt
4. The process of shelling involves
  - (i) Impact
  - (ii) Compression
  - (iii) Abrasion
  - (iv) All the above
5. Choose the example for shallow bin
  - (i) Vertical silos
  - (ii) Pusa bin
  - (iii) Squat silos
  - (iv) Sheds

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

11. a. Classify engineering properties of foods with example  
OR  
b. State the psychrometric properties
12. a. Bring out the concept of drying theory  
OR  
b. Explain the working principle of cabinet drier
13. a. Compare cleaners and driers used in food processing  
OR  
b. How will you check the performance index of the separator?
14. a. Narrate the principle of operation of shellers  
OR  
b. Explain the working of hand operated groundnut decorticator
15. a. Outline the importance of various material handling equipment  
OR  
b. State the safe storage conditions for durable commodities

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

16. a. Summarize on various unit operations and its importance in food processing  
OR  
b. Elucidate on direct methods of determination of moisture content in foods
17. a. Discuss on different types of mechanical driers  
OR  
b. Highlight the working principle of Freeze drier with diagram
18. a. Enumerate on the principle and application of colour sorter  
OR  
b. Outline the working of inclined belt separator with a neat diagram
19. a. Trace out the parts and working of mechanical groundnut decorticator  
OR  
b. Summarize the working principle of maize sheller with diagram
20. a. Discuss on the operation principle of screw conveyor system  
OR  
b. Highlight the concept of deep bin and shallow bin in grain storage

Z-Z-Z

END