

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**Bvoc DEGREE EXAMINATION DECEMBER 2017
(Third Semester)**

Branch FOOD PROCESSING TECHNOLOGY

FOOD ENGINEERING

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define Conduction.
- 2 Define Water activity.
- 3 Define Crystallization.
- 4 List any four evaporators.
- 5 Define Kick's Law.
- 6 What is meant by cryogrinding?
- 7 Define Extraction.
- 8 Define Distillation.
- 9 Define Stock's Law.
- 10 List the types of Filter Media.

SECTION - B (25 Marks!)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 13 a Explain the working operation of counter current leaf exchanger.
OR
b Brief on principles and working of microwave drier.
- 12 a Explain the working of falling film evaporator.
OR
b Discuss the merits and demerits of circulation evaporator.
- 13 a Explain the laws governing crushing efficiency.
OR
b Explain the construction and operation of Hammer mill.
- 14 a Explain the working operation of basket extractor.
OR
b Explain the operation of tumbling mixer for dry solids.
- 15 a Define filter media. Brief on constant pressure Alteration.
OR
b Brief on gravitational sedimentation of particulars in fluid.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain in detail the principles, working and application of vapour compression refrigeration system with a neat sketch.
- 17 Write on construction and operation of Swenson-Walker vaccum crystallizers with a sketch.
- 18 Discuss the principles and working operation of any two affliction mills.
- 19 Give an account on the operation process of steam and vaccum distillation.
- 20 Describe the principles and working process of rotating vaccum filter unit.