

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2024
(Fourth Semester)

Branch- FOOD PROCESSING TECHNOLOGY

FOOD CHEMISTRY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Indicate the range of pH scale.
(i) 0 to 7 (ii) 1 to 7
(iii) 0 to 14 (iv) 1 to 14
- 2 Identify the homopolysaccharide.
(i) Starch (ii) Maltose
(iii) Glucose (iv) Ribulose
- 3 Relate: Number of mg of KOH required to neutralize the fatty acids in a gram of a fat.
(i) Saponification number (ii) Acetyl value
(iii) RM value (iv) Iodine number
- 4 State which of the following properties is used in Protein separation in PAGE?
(i) Size only (ii) Size, shape, and electric charge
(iii) Size and shape only (iv) Shape only
- 5 Choose the fat-soluble pigment in fruits and vegetables
(i) Chlorophyll (ii) Anthoxanthins
(iii) Anthocyanin (iv) All the above

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a State – Viscosity and Surface tension.
OR
b Explain titratable acidity.
- 7 a Sketch the structure of glucose and fructose.
OR
b Discuss the oxidation reaction of monosaccharides.
- 8 a Describe hydrogenation of fats.
OR
b Classify lipids.
- 9 a Analyze the role of protein in emulsification.
OR
b Explain denaturation of proteins.

Cont...

- 10 a Compare natural and artificial colours.
OR
b Classify pigments.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Enumerate the colloidal dispersions important in foods
OR
b Highlight the properties of water.
- 12 a Summarize the process of gelatinization.
OR
b Outline the classification of carbohydrates providing examples.
- 13 a Determine the physical properties of fats.
OR
b Infer the changes in fat during cooking.
- 14 a Analyze the structure of protein.
OR
b Classify proteins based on amino acid composition.
- 15 a Interpret the changes in the pigment- chlorophyll during processing.
OR
b Categorize flavor component of spices, milk, and cheese.

Z-Z-Z

END