

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

PG DEGREE EXAMINATION DECEMBER 2023  
(Third Semester)

TRANS DISCIPLINARY COURSE  
(Common to PG Programmes)

FOOD CHEMISTRY & QUALITY CONTROL

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- 1) Choose the chemical name for fibre  
(i) Starch                      (ii) Cellulose                      (iii) Fructose                      (iv) Sucrose
- 2) Identify the enzymatic browning reaction  
(i) Browning of Sugar (Caramelization)      (ii) Browning of Rice during roasting  
(iii) Browning of lemon                      (iv) Browning of Apple
- 3) Which is used in the food industry to speed up the reactions?  
(i) Catalyst                      (ii) Additives                      (iii) Enzymes                      (iv) Intensifiers
- 4) Mention the temperature at which taste sensation starts increasing  
(i) Above 30°C                      (ii) Below 20°C  
(iii) Above 40°C                      (iv) Below 10°C
- 5) Name the common adulterant of turmeric.  
(i) Hydrazine yellow                      (ii) Metanil Yellow  
(iii) Dye Yellow lake                      (iv) Yellow 5

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- 6) a) Discuss on types of water.  
(OR)  
b) Explain the role of pectin in food industry.
- 7) a) Narrate a note on heamoglobin.  
(OR)  
b) Explain the properties of fats.
- 8) a) List the major categories of food additives with example.  
(OR)  
b) Explain rheology of dough.
- 9) a) Prepare an evaluation card for triangle test.  
(OR)  
b) Describe the sensory characteristics that can be evaluated.
- 10) a) Discuss the role of FSSAI.  
(OR)  
b) State the role and function of consumer protection act.

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11) a) Determine the effect of moist and dry heat on starch.  
(OR)  
b) Elaborate on animal protein.
- 12) a) Bring out the changes in pigments during cooking.  
(OR)  
b) Enumerate on rancidity and its reversion.
- 13) a) Summarize natural food colorants and their uses.  
(OR)  
b) Explain the role of enzymes in food industry.
- 14) a) Sketch down the chemistry and physiology of taste.  
(OR)  
b) Discuss on rating methods of sensory evaluation.
- 15) a) Explain any five common adulterants in food and the test to identify it.  
(OR)  
b) Summarize the role of BIS and AGMARK in food safety.

Z-Z-Z

END