

3. Answer any *two* questions: 2×8 = 16

(a) (i) What is the primary function of homogenization? (ii) Describe the detail process of Milling of wheat. (4+4)

(b) What is the chemical composition of fats and oils? Describe in detail about oxidative rancidity? (3+5)

(c) Describe shortly about preparation of ketchup and mango pickles.

(d) Enlist and explain different processing steps involved in canning of fruits and vegetables. (ii) Write a short note about Essential commodities Act. (4+4)

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Internal Assessment-10

2025

M.Sc.

4thSemester Examination

CHEMISTRY

PAPER – CEM-404 (Organic Special)

Full Marks: 50

Time: 2 Hours

(CEM 404-Chemical Principles in Food Science and Technology)

1. Answer any *four* bits: 2×4 = 8

(a) Why is Rheology testing of food performed?

(b) What is Riechert-Meissl value?

(c) Define smoke point of fat.

(d) What is the importance of Iodine index?

(e) What is the meaning of Hazard Analysis Critical Control Point (HACCP)?

(f) What is parboiled rice?

2. Answer any *four* bits: 4×4 = 16

(a) i) What is food? ii) Classify the food on the basis of their pH. (1+3)

(b) Write down a note on Pasteurization of milk

(c) (i) What is hurdle technology? (ii) How does it preserve food materials? Give example. (1+3)

(d) How is milled rice produced?

(e) Discuss the nutritional importance of fats and oils.

(f) What is the role of antioxidant in food preservation? What is ISO 9000 certification? (2+2)

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