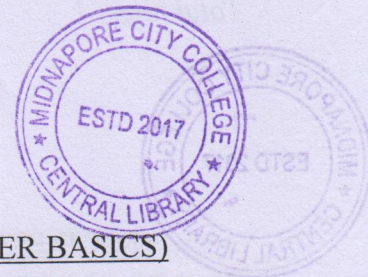


PG (NEW) CBCS
M.Sc. Semester-I Examination, 2018
CHEMISTRY
PAPER: CEM-104



(FOOD PROCESSING AND PRESERVATION AND COMPUTER BASICS)

Full Marks: 40

Time: 2 Hours

Group- A

1. Answer any two questions from the following: 2×2
 - a. What is PUFA? State its biological importance.
 - b. Classify the food on the basis of perishability.
 - c. What is canning and state its usefulness.
 - d. What are the principles of food preservation?
2. Answer any two questions from the following: 4×2
 - a. What are the criteria to establish a compound for ideal preservative?
 - b. What do you mean by natural food preservative? How does the bacteriocin kill the bacteria? 2+2
 - c. Write the importance of complex CHO in diet.
 - d. iv) What are scleroprotein?
3. Answer any one question from the following: 8×1
 - a. Describe different intrinsic and extrinsic factors affecting the microbial growth in food.
 - b. Write short note on: 4+4
 - iii) Lactic acid bacteria
 - iv) Pasteurization.

Group –B

4. Answer any two questions from the following: 2×2
 - a. Describe modern computer architecture.
 - b. $(357)_{10}$ convert into octal and hexadecimal equivalent.
 - c. $(25)_{10} - (22)_{10}$ using tow's component method.
 - d. $(1101110)_2$ find the equivalent octal and hexadecimal.
5. Answer any two questions from the following: 4×2
 - a. Simplify the following Boolean function using K-map

$$\int(a, b, c) = \sum_m (0,1,3,4,6)$$
 - b. Design a full order circuit.
 - c. Write short notes on (i) input device, (ii) output device, (iii) memory (iv) ROM.
 - d. Write short notes on (i) software, (ii) programming language, (iii) compiler(iv)Interpeter.
6. Answer any one question from the following: 8×1
 - a. Define truth table and logic gate symbol of AND, OR, NOT, XOR, XNOR.
 - b. Describe the following digital codes used for data communication:
 - iii) ASCII
 - iv) BCD
