4. Write the structure, properties, and colour of the following dye. (3×5=15)

(a) Quinoline

(b) Amaranth

(c) Beta carotene

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4734 **H**

Unique Paper Code : 2176000002

Name of the Paper : SEC: Chemistry of Food Flavors and Colourants

Name of the Course : **All undergraduate courses**

Semester : II/IV

Duration : 1 Hour Maximum Marks : 30

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **two** question out of **four**.

1. (a) What are the artificial food colourants ? Discuss the importance of azodyes and phthalein by taking suitable example.

(b) Differentiate any **two** of the following :–

(i) Non Enzymic Browning & Enzymic Browning Reactions.

(ii) Nature identical colourants & Natural Food Colourants.

(iii) Non-nutritive and Nutritive sweetners.

(c) What are the caramelisation browning process in food ? (3×5=15)

2. (a) Explain the chemical dimension of flavor by taking suitable example ? How do you control the enzymic browning by using heat.

(b) What are the Chlorophyll? Explain the importance of it in the food and write the chemical structure.

(c) Discuss the role of any **two** as colourants :–

(i) Lakes

(ii) Triarylmethanes

(iii) Citrous red (3×5=15)

3. (a) Write the name and the structure of any natural-identical colourants?

(b) Which colour anthocyanins provide to the food? Draw its structure and mention its sources.

(c) Draw the chemical structure of indigo carmine. Mention its uses. (3×5=15)