

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: BTECH  
BRANCH: FOOD ENGINEERING & TECH**

**SEMESTER: V<sup>TH</sup>  
SESSION: MO/2025**

**SUBJECT: FE303 FOOD QUALITY CONTROL, LAWS, STANDARD & REGULATION**

**TIME: 3 Hours**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q.1(a)	Define the term “food quality” and brief about “food choices and quality”.	[5] 1	1
Q.1(b)	Define the terms Particle size distribution, Density ( $\bar{n}$ ) and Porosity and their role in food quality.	[5] 1	1
Q.2(a)	Explain the methods for detecting genetic defects.	[5] 2	2
Q.2(b)	Explain the term biosensor, types of biosensors and their working.	[5] 2	2
Q.3(a)	Discuss the properties of raw food materials, post-harvest operations and post-harvest factors affecting food quality.	[5] 3	3
Q.3(b)	Describe what is Food Colour and Illustrate the types of quality-related colour changes (reactions) in foods.	[5] 3	3
Q.4(a)	Describe the concepts of quality control and quality assurance functions in food industries.	[5] 4	4
Q.4(b)	Explore the term Total Quality Management (TQM), its principles and stages in implementation.	[5] 4	4
Q.5(a)	Explain the AGMARK and BIS regulations for foods.	[5] 5	5
Q.5(b)	Summarize the food adulteration, misbranding and common adulterants in foods	[5] 5	5

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