FEDERAL BOARD OF INTERMEDIATE AND SECONDARY EDUCATION
H-8/4, Islamabad

ASSESSMENT MANUAL FOR PRACTICAL OF

FOOD PROCESSING AND PRESERVATION

SSC-II

MATRIC-TECH

Scheme of Studies 2024

Purpose

- This rubric ensures standardized marking for all students.
- Faculty can simply tick/check and assign marks during exams.
- Students know exactly what is expected from them.
- This format provides clarity, fairness, and transparency for both faculty and students.

Section I — Theory Assessment (40% — 30 Marks)

Component	Criteria	Max Marks	Marks Obtained
MCQs (20%)	Knowledge recall, basic concepts	06	
Short Answer Questions (50%)	Comprehension, application, clarity	16	
Long Essay / Analytical-based (30%)	Depth of understanding, analysis, clarity of subject	08	
Total Theory		**30**	

Section II — Practical Assessment (60% — 45 Marks)

A. Year's Work / Projects (27% — 20 Marks)

Students are required to complete 8–10 practical tasks during the academic session, selected from the List of Practicals at the end of this document. Each task is marked using the criteria below.

Sr. No	Practical Task — Marking Criteria	Marks
1	Classification and Preliminary Operations: Complete the classification chart, preliminary operations and browning control experiment. [List of Practicals S# 1, 2, 3; FPP-10-A-01, A-02]	2 marks
2	Innovations and Techniques Charts: Prepare the innovations report, waste reduction plan and the thermal and non-thermal charts. [List of Practicals S# 4, 5, 6, 7; FPP-10-A-03, A-04, B-01, B-02]	2 marks
3	Pickling and Costing: Prepare a pickle and complete the value addition chart and costing sheet. [List of Practicals S# 8, 9, 15; FPP-10-C-01, C-02, C-04]	2 marks
4	Jam, Jelly and Marmalade: Prepare jam and jelly or marmalade and record the recipes and results. [List of Practicals S# 10, 11; FPP-10-C-03]	3 marks
5	Squash, Ketchup and Baked Product: Prepare a squash or juice, ketchup and a baked product and record the results. [List of Practicals S# 12, 13, 14; FPP-10-C-03]	3 marks
6	Additives and Food Law Study: Complete the additives sorting activity and the food law and label check. [List of Practicals S# 16, 17; FPP-10-D-01, D-02, D-03]	3 marks
7	Fermentation Practical: Prepare yoghurt and complete the fermented foods chart. [List of Practicals S# 18, 19; FPP-10-D-04, D-06, D-05, D-07]	2 marks

Sr. No	Practical Task — Marking Criteria	Marks
8	Final Portfolio Compilation & Presentation: Compile all records with the packaging identification, label design and package evaluation and present them. [List of Practicals S# 20, 21, 22; FPP-10-E-04, E-01, E-02, E-03]	3 marks
	Total Marks	**20 marks**

Verification Level: Subject Teacher/Instructor and HOD/Principal with Name, Signature & Stamp. Countersigned by the External Examiner.

B. Viva Voce (7% — 5 Marks)

Criteria	Max Marks	Marks Obtained
Theory-based questions (knowledge of tools and techniques used in Food Processing and Preservation)	05 x 1 = 05	
Total Marks	**05**	

Note: Only 5 questions will be asked. No extra questions are allowed.

C. Hands-on Practical Skills (27% — 20 Marks)

Note: hands on practical skill will be assessed from the list of practicals given below: Any two questions from list of practical will be assigned by the external examiner. Each question having ten (10) marks and each question having parts in it.

(See the accompanying Practical Model Paper for the exact question format and part-wise breakdown.)

Criteria	Max Marks	Marks Obtained
Understanding of Task	5	
Technical Execution	5	
Creativity & Presentation	5	
Time Management & Discipline	5	
Total Hands-on Skills	**20**	

Note: Only two questions will be asked from students as practicals. Each question having 10 marks.

Time Duration for Practical: 03 Hours

Final Assessment Summary

Component	Max Marks	Marks Obtained
Section I: Theory Assessment	30	
Section II: Year's Work/Projects	20	
Section II: Viva Voce	5	
Section II: Hands-on Practical Skills	20	
Grand Total	**75**	

External Examiner

Role: To ensure transparency, reliability and validity. Students will be evaluated by a single qualified external examiner.

Responsibilities

- Oversees the entire practical exam process.

- Ensures exams are conducted according to policy.
- Countersigns the assessment record.
- Evaluates hands-on practical skills.
- Signs off on the final mark sheets.
- Maintains fairness and addresses student/examiner issues if they arise.
- Asks viva voce questions as per the policy above.
- Gives special attention to the availability of lab equipment relevant to the practicals.

Supporting Staff (Internal)

Lab Assistant and Attendant

- Prepares the lab and equipment.
- Assists examiners in maintaining Projects/Portfolio folders.

Lab Attendant

- Serves external examiners.
- Assists the lab assistant in preparing labs.

List of Practicals

Master reference pool of practical tasks (SLO-mapped). Students complete 8–10 of these for Year's Work/Projects; the External Examiner selects two for the Hands-on Practical Skills paper on exam day.

S#	Title	Details	LO Reference
1	Food Classification Chart	Classify given foods by components, shelf life, pH and source and present the results in a table.	FPP-10-A-01
2	Preliminary Operations Demonstration	Demonstrate cleaning, sorting, grading and peeling of a fruit or vegetable before processing.	FPP-10-A-02
3	Enzymatic Browning Control	Cut apples or potatoes and compare methods of preventing browning.	FPP-10-A-02
4	Contemporary Innovations Report	Prepare a short illustrated report on microwave heating, high-pressure processing and smart packaging.	FPP-10-A-03
5	Food Waste Reduction Plan	Prepare a plan with methods to reduce food wastage and compare freeze drying with drying.	FPP-10-A-04
6	Novel Thermal Techniques Chart	Prepare a chart comparing ohmic, microwave, radio frequency and infrared heating.	FPP-10-B-01
7	Non-thermal Techniques Chart	Prepare a chart of high-pressure processing, pulsed electric fields, irradiation and ultrasonication with their advantages.	FPP-10-B-02
8	Value Addition Chart	Prepare a chart explaining value addition and its significance with examples.	FPP-10-C-01
9	Mango or Mixed Pickle Preparation	Prepare a pickle and explain how salt, acid and oil preserve it.	FPP-10-C-02
10	Jam Preparation	Prepare mixed-fruit jam and explain the roles of pectin, sugar and acid.	FPP-10-C-03
11	Jelly or Marmalade Preparation	Prepare fruit jelly or orange marmalade and test its setting.	FPP-10-C-03
12	Squash or Juice Preparation	Prepare squash or juice and explain how the product is preserved.	FPP-10-C-03
13	Ketchup or Sauce Preparation	Prepare tomato ketchup or sauce and bottle it hygienically.	FPP-10-C-03
14	Bakery Product Preparation	Prepare muffins or biscuits and evaluate their quality.	FPP-10-C-03
15	Costing a Value Added Product	Prepare a costing and profit sheet for one value added product.	FPP-10-C-04
16	Preservative and Non-preservative Additives	Collect food labels and sort the additives into preservatives and non-preservatives.	FPP-10-D-01, FPP-10-D-02
17	Food Law and Label Check	Check given labels against basic food law requirements for additives.	FPP-10-D-03
18	Yoghurt Preparation	Prepare yoghurt from milk and explain the role of lactic acid bacteria.	FPP-10-D-04, FPP-10-D-06
19	Fermented Foods and Health Benefits	Prepare a chart of fermented foods and their health benefits.	FPP-10-D-05, FPP-10-D-07
20	Packaging Materials Identification	Identify given packages and sort them as paper, board, plastic, glass, can or tetra pack.	FPP-10-E-04
21	Food Label Design	Design a label for a food product that shows the information required by the consumer.	FPP-10-E-01, FPP-10-E-02

S#	Title	Details	LO Reference
22	Packaging Material Evaluation	Evaluate two packages against the properties of good packaging material.	FPP-10-E-03

FOOD PROCESSING AND PRESERVATION
PRACTICAL MODEL PAPER
SSC-II

Time allowed: 3:00 Hours	Total Marks: 20
Note: Attempt the following Question	

Q1. Prepare Jam from Fruit and Explain the Process (10 Marks)

Prepare a small batch of jam from the fruit provided and explain how the product is preserved.

i. Selection and preparation of fruit, sugar and acid, with correct quantities (02 Marks)

ii. Cooking of the jam to the setting point and filling of a clean jar (03 Marks)

iii. Explanation of the roles of pectin, sugar and acid and how the jam is preserved (03 Marks)

iv. Hygiene, labelling and overall presentation (02 Marks)

Q2. Design a Label and Select Packaging for a Food Product (10 Marks)

For a given food product, select suitable packaging and design a label for it.

i. Identification of the packaging materials available and selection of one for the product (02 Marks)

ii. Design of the label showing the product name, ingredients, dates and nutrition information (03 Marks)

iii. Justification of the packaging chosen using the properties of good packaging material (03 Marks)

iv. Overall presentation of the label and neatness (02 Marks)

Note: In view of attached portfolio, the two questions will be assigned from the List of Practicals given in the Assessment Manual for Food Processing and Preservation, and each question carries 10 Marks.