

Ref. : 01

Date 07.02.2022

प्रेषक,

कार्यक्रम प्रभारी,
इग्नू अध्ययन केन्द्र 32023P
प्रशिक्षण एवं प्रसार संस्थान परिसर,
धुर्वा, राँची।

सेवा में,

क्षेत्रीय निदेशक,
इग्नू क्षेत्रीय कार्यालय,
कृष्णा मॉल, राँची।

विषय :- डिप्लोमा इन डेयरी टेक्नोलॉजी (DDT) पाठ्यक्रम प्रारंभ करने के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में कहना है कि इग्नू अध्ययन केन्द्र 32023P, प्रशिक्षण एवं प्रसार संस्थान परिसर, धुर्वा, राँची अन्तर्गत दिनांक - 12.02.2022 से कुल 12 प्रशिक्षणार्थियों का डिप्लोमा इन डेयरी टेक्नोलॉजी (DDT) पाठ्यक्रम प्रारंभ किया जा रहा है।
सूचनार्थ एवं आवश्यक कार्रवाई हेतु अग्रसारित।

विश्वासभाजन

Manoj Kumar
07.02.22

कार्यक्रम प्रभारी

इग्नू अध्ययन केन्द्र, राँची
32023P



Indira Gandhi National Open University

Study Centre - 32023P

Training & Extension Institute Campus

Dhurwa, ranchi

Programme:- Diploma in Dairy Technology (DDT) Counseling Schedule for Practicals (July, 2021 Session)

A. Guided Practicals

CODE: BPVI-011 COURSE I- MILK PRODUCTION AND QUALITY OF MILK				
Sl.No	Date	Session	Time & Table	Sl. No. & Name of Practical
1	12.02.2021	9	08:00 AM to 12:00 PM	1. Identification of different milch breeds of cattle, and buffaloes, external anatomy of dairy animals.
				2. Judging of dairy animals.
				3. Clean milk production.
		Lunch		
		10	01:00 PM to 05:00 PM	4. Identification of various feeds and fodders for dairy animals.
				5. Preparations of balanced rations, calf starters, milk replacer and feeding of calves.
				6. Housing of animals and maintenance of hygienic conditions at farm.
				7. Field/farm visits.
		11	08:00 AM to 12:00 PM	1. Preparation of standard 0.1N sodium hydroxide solution.
				2. Preparation of standard 0.1N hydrochloric acid.
				3. Preparation of gerber acid for determination of fat in milk.
		Lunch		
2	13.02.2021	12	01:00 PM to 05:00 PM	4. Sampling of milk.
				5. Platform test- (i) clot-on-boiling test (COB test).
				6. Platform test- (ii) alcohol test.
				7. Platform test- (iii) sediment test.

3	19.02.2021	13	08:00 AM to 12:00 PM	1. Determination of fat in milk by gerber method.	
				2. Determination of solid- not- fat (SNF) in milk.	
				3. Determination of total solid (TS) in milk.	
				4. Specific gravity of milk.	
				5. Determination of titratable acidity of milk.	
				6. Determination of pH of milk.	
				Lunch	
4	20.02.2021	14	01:00 PM to 05:00 PM	7. Detection of starch in milk.	
				8. Detection of cane sugar in milk.	
				9. Detection of glucose in milk.	
				10. Detection of urea in milk.	
				11. Detection of ammonium sulphate in milk.	
				12. Detection of sodium carbonate or bicarbonate as neutralizer in milk.	
				Lunch	
4	20.02.2021	15	08:00 AM to 12:00 PM	1. Resazurin reduction test.	
				2. Methylene blue reduction (MBR) test.	
				3. Preparation of microbial media.	
				Lunch	
				4. Demonstration of presumptive coliform test.	
				5. Demonstration of standard plate count method.	
				6. Staining methods.	

CODE: BPVI-012 COURSE II- DAIRY EQUIPMENTS AND UTILITIES

Sl.No	Date	Session	Time & Table	Sl. No. & Name of Practical	
5	26.02.2022	17	08:00 AM to 12:00 PM	1. To learn elementary layout drawings of utilities.	
				2. Study of various workshop tools.	
				3. Study of different sanitary S.S. pipes, fittings and gaskets.	
				4. To study different types of thermometers, pressure gauge and flow meters.	
				Lunch	
6	27.02.2022	18	01:00 PM to 05:00 PM	5. Study and sketch the details of milk tanker, storage tanks and silos.	
				1. Study of refrigeration system: compressor (reciprocating), condensers (shell & tube, atmospheric) and expansion devices (thermostatic) expansion valve/capillary tube)	
		19	08:00 AM to 12:00 PM	2. Study of parts and operation of a cold storage plant and an ice bank unit.	
				Lunch	
		20	01:00 PM to 05:00 PM	3. Study different parts and learn the operation of plate chiller and bulk milk cooler. 4. Dismantling and assembling of milk pumps.	
7	05.03.2022	21	08:00 AM to 12:00 PM	1. Study of water supply system and water softening plant.	
				2. Study of a dairy effluent plant.	
				3. Study the constructional details of Fire tube and water tube boilers.	
				4. Study of different safety measures to be adapted in a dairy plant.	
				5. To study the control and safety mountings of a steam boiler.	
		22	01:00 PM to 05:00 PM	Lunch	
				6. To study the different parts of single-phase and three phase induction motors.	
				7. Starting of 3 phase squirrel cage induction motors by direct on line and star-data starter.	

CODE: BPVI-013 COURSE III- MILK PROCESSING AND PACKAGING

Sl.No	Date	Session	Time & Table	Sl. No. & Name of Practical	
8	06.03.2022	23	08:00 AM to 12:00 PM	1. Reception of milk.	
				2. Straining, filtration & clarification of milk.	
				3. Chilling & storage of milk.	
9	12.03.2022			Lunch	
		25	01:00 PM to 05:00 PM	4. Study of cream separator.	
				5. Study of separation of milk.	
				6. Standardization of milk.	
		25	08:00 AM to 12:00 PM	1. Study of batch pasteurizer and high temperature short time (HTST) pasteurizer.	
				2. Pasteurization of milk.	
				3. Determination of efficiency of pasteurization.	
10	13.03.2022			Lunch	
		26	01:00 PM to 05:00 PM	4. Study of homogenizer, homogenization of milk and determination of homogenization efficiency.	
				5. Study of milk sterilizer, sterilization of milk and determination of sterilization efficiency	
		27	08:00 AM to 12:00 PM	1. Preparation of flavoured milk, reconstituted milk, toned and double toned milk.	
				2. Study of packaging system of milk.	
				Lunch	
		28	01:00 PM to 05:00 PM	3. Cleaning of equipment.	
				4. Sanitization of equipment.	
				5. Assessment of cleaning and sanitization efficiency.	

CODE: BPVI-014 COURSE IV- DAIRY PRODUCTS-I

SL.No	Date	Session	Time & Table	Sl. No. & Name of Practical
11	19.03.2022	29	08:00 AM to 12:00 PM	1. Preparation and standardization of cream.
				2. Preparation of Sterilized cream.
				3. Preparation of butter starter
				4. Preparation of cream for butter making.
				Lunch
		30	01:00 PM to 05:00 PM	5. Construction and operation of power churn.
				6. Construction and operation of butter packaging machine.
				7. Preparation of desi butter (makkhan), table butter and cooking butter.
				8. Preparation of table butter
				9. preparation of ghee.
				10. Agmark grading of ghee

CODE: BPVI-015 COURSE V- DAIRY PRODUCTS-II

12	20.03.2022	31	08:00 AM to 12:00 PM	1. Preparation of <i>Khoa</i> .		
				2. Preparation of <i>pera</i> .		
				3. Preparation of <i>burfi</i> .		
				<i>Lunch</i>		
		32	01:00 PM to 05:00 PM	4. Preparation of <i>gulabjamun</i> .		
				5. Preparation of <i>kalakand</i> and milk cake.		
	26.03.2022	33	08:00 AM to 12:00 PM	1. Preparation of <i>chhana</i> .		
				2. Preparation of <i>paneer</i> .		
				<i>Lunch</i>		
		34	01:00 PM to 05:00 PM	3. Preparation of <i>sandesh</i> .		
				4. Preparation of rasmalai		
				5. Preparation of rasogolla		
13						

14	27.03.2022	35	08:00 AM to 12:00 PM	6. Preparation of Chhena Murki 7. Perparation of <i>rabri</i> / 8. Preparation of <i>kheer</i> .		
				Lunch		
		36	01:00 PM to 05:00 PM	9. Study of vacuum pan/double effect/triple effect of evaporator 10. Study of manufacture of spray dried milk powder 11. Preparation of value added products from dried milk-dairy whitener 12. Visit of dairy products manufacturing plant (ghee, butter, khoa, dahi condensed and milk powder)		
				CODE: BPVI-016 COURSE VI- DAIRY PRODUCTS-III		
15	02.04.2022	37	08:00 AM to 12:00 PM	Sl. No. & Name of Practical 1. Preparation of starter culture. 2. Preparation of <i>dahi</i> . 3. Preparation of <i>mishthi dahi</i> . 4. Preparation of <i>yoghurt</i> .		
		38	01:00 PM to 05:00 PM	5. Preparation of shrikhand. 5. Preparation of lassi/fermented drinks/salted butter milk 1. Calculation of ingredients for ice cream mix. 2. Preparation of ice-cream mix. 3. Preparation of ice cream and determination of overrun. 4. Visit to ice-cream factory		
16	03.04.2022	40	01:00 PM to 05:00 PM	5. Preparation of softy. 6. Manufacture of kulfi. 7. Preparation of ice cream and determination of overrun.		

CODE: BPVI-017 COURSE VII- QUALITY ASSURANCE

Sl.No	Date	Session	Time & Table	Sl. No. & Name of Practical	
17	09.04.2022	41	08:00 AM to 12:00 PM	1. Familiarization with laboratory equipment and instruments.	
				Lunch	
		42	01:00 PM to 05:00 PM	2. Determination of fat in milk, cream, butter, khoa, paneer. 3. Determination of titratable acidity and pH of milk products.	
18	10.04.2022	43	08:00 AM to 12:00 PM	1. Determination of solubility of milk powder. 2. Determination of acid value in ghee.	
				Lunch	
		44	01:00 PM to 05:00 PM	3. Microbiological analysis of milk products.	
19	16.04.2022	45	08:00 AM to 12:00 PM	1. Microbiological analysis of air and water. 2. In-line testing by rinse and swab methods.	
				Lunch	
		46	01:00 PM to 05:00 PM	3. Sensory evaluation of milk, cream, butter, khoa, paneer, ice cream, milk powder, dahi, shrikhand, cheese and other products.	
20	17.04.2022	47	08:00 AM to 12:00 PM	1. Sensory evaluation of milk, cream, butter, khoa, paneer, ice cream, milk powder, dahi, shrikhand, cheese and other products.	
				Lunch	
		48	01:00 PM to 05:00 PM	2. Listing of quality control agencies at national level and international level. 3. Standards specification (chemical and microbiological) of milk and milk products.	

CODE: BPVI-018 COURSE VIII- DAIRY MANAGEMENT AND ENTREPRENEURSHIP

Sl.No	Date	Session	Time & Table	Sl. No. & Name of Practical	
21	23.04.2022	49	08:00 AM to 12:00 PM	1. Identification of sources for milk losses during processing of milk and preparation of milk products. Preparation of check list for controlling the losses.	
				2. Identification of parameters for production efficiency.	
				3. Preparation of check list for evaluation of performance of a dairy plant.	
				Lunch	
22	24.04.2022	50	01:00 PM to 05:00 PM	4. Visit to nearby dairy cooperative society and study following aspects.	
				5. Calculation of milk payment based on fat and two axis pricing policy of dairy cooperative Society (DCS)	
				6. Designing milk routes based on data.	
				7. Preparation of ledger, trial-balance and balance-sheet of DCS.	
23	30.04.2022	51	08:00 AM to 12:00 PM	1. Prepare a questionnaire to assess strength and weakness of any milk or milk product marketing by a nearby milk union or a dairy and aslo administer it.	
				2. Visit a nearby milk union/dairy and prepare a checklist of problems in procurement and milk distribution.	
				Lunch	
				3. Visit a nearby milk union/dairy and study the store-keeping practices, inventory control, and maintenance of various records preparation.	
24	01.05.2022	52	01:00 PM to 05:00 PM	4. Market information report on different dairy products.	
				1. Identification of entrepreneurial skills.	
				Lunch	
				3. Prepare a project report to set up milk parlour/ small dairy plant.	
25	02.05.2022	53	08:00 AM to 12:00 PM	4. Market information report on different dairy products/preparation.	

Note :- The Schedule regarding date & Subject may be interchanged as per the availability of Academic Counsellors.


 Programme Incharge
 IGNOU Study Centre (32023P)
 Training & Extension Institute,
 Dhurwa, Ranchi

B. Unguided Practicals

Sl. No.	Date	Practical Days	Time	Course Code and Title	Session
1	01.05.2022	24	08:00 AM to 12:00 PM	Course-I (BPVI-011) Milk Production and Quality of Milk	55
			01:00 PM to 05:00 PM	Course-II (BPVI-012) Dairy Equipment and Utilities	56
2	07.04.2022	25	08:00 AM to 12:00 PM	Course-III (BPVI-013) Milk Processing and Packaging	57
			01:00 PM to 05:00 PM	Course-IV (BPVI-014) Dairy Products-I	58
3	08.04.2022	26	08:00 AM to 12:00 PM	Course-V (BPVI-015) Dairy Products-II	59
			01:00 PM to 05:00 PM	Course-VI (BPVI-016) Dairy Products-III	60
4	14.05.2022	27	08:00 AM to 12:00 PM	Course-VII (BPVI-017) Quality Assurance	61
			01:00 PM to 05:00 PM	Course-VIII (BPVI-018) Dairy Management and Entrepreneurship	62

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