

## **Diploma Programme in Dairy Technology (DDT)**

### **Counseling Schedule for Theory year 2022**

<b>Sl. No</b>	<b>Date</b>	<b>Timing</b>	<b>Session</b>	<b>Course Code and Title</b>	<b>Teacher</b>
1.	12/09/2022	9:00- 11:00 AM	1	Orientation Programme	Dr. Manohar Sain
		11:00 AM-1:00 PM	2	Course-I (BPVI-011) Milk Production and Quality of Milk	Dr. Manohar Sain
				Lunch	
		3:00-5:00 PM	3	Course-II (BPVI-012) Dairy Equipment and Utilities	Dr. Mohan Choudhary
2.	13/09/2022	9:00- 11:00 AM	4	Course-III (BPVI-013) Milk Processing and Packaging	Dr. Mohan Choudhary
		11:00 AM-1:00 PM	5	Course - IV (BPVI-014) Dairy Products - I	Dr. Mohan Choudhary
				Lunch	
		3:00-5:00 PM	6	Course-V (BPVI-015) Dairy Products - II	Dr. Mohan Choudhary
3.	14/09/2022	9:00- 11:00 AM	7	Course-VI (BPVI-016) Dairy Products - III	Dr. Mohan Choudhary
		11:00 AM-1:00 PM	8	Course-VII (BPVI-017) Quality Assurance	Dr. Manohar Sain
				Lunch	
		3:00-5:00 PM	9	Course -VIII (BPVI-018) Dairy Management and Entrepreneurship	Dr. Neeraj Sharma
4.	15/09/2022	9:00- 11:00 AM	10	Course-I (BPVI-011) Milk Production and Quality of Milk	Dr. Neeraj Sharma
		11:00 AM-1:00 PM	11	Course-II (BPVI-012) Dairy Equipment and Utilities	Dr. Mohan Choudhary
				Lunch	
		3:00-5:00 PM	12	Course-III (BPVI-013) Milk Processing and Packaging	Dr. Mohan Choudhary
5.	16/09/2022	9:00- 11:00 AM	13	Course - IV (BPVI-014) Dairy Products - I	Dr. Mohan Choudhary
		11:00 AM-1:00 PM	14	Course-V (BP VI-015) Dairy Products — II	Dr. Mohan Choudhary
				Lunch	
		3:00-5:00 PM	15	Course - VI (BPVI-016) Dairy Products - III	Dr. Mohan Choudhary

6.	17/09/2022	9:00- 11:00 AM	16	Course-VII (BPVI-017) Quality Assurance	Dr. Mohan Choudhary
		11:00 AM-1:00 PM	17	Course-VIII (BPVI-018) Dairy Management and Entrepreneurship	Dr. Neeraj Sharma
				Lunch	
		3:00-5:00 PM	18	Course -I (BPVI-011) Milk Production and Quality of Milk	Dr. Manohar Sain
7.	19/09/2022	9:00- 11:00 AM	19	Course-II (BPVI-012) Dairy Equipment and Utilities	Dr. Manohar Sain
		11:00 AM-1:00 PM	20	Course-III (BPVI-013) Milk Processing and Packaging	Dr. Mohan Choudhary
				Lunch	
		3:00-5:00 PM	21	Course-IV (BPVI-014) Dairy Products -I	Dr. Mohan Choudhary
8.	20/09/2022	9:00- 11:00 AM	22	Course-V (BPVI-015) Dairy Products - II	Dr. Mohan Choudhary
		11:00 AM-1:00 PM	23	Course-VI (BPVI-016) Dairy Products - III	Dr. Mohan Choudhary
				Lunch	
		3:00-5:00 PM	24	Course-VII (BPVI-017) Quality Assurance	Dr. Manohar Sain
		9:00- 11:00 AM	25	Course-VIII (BPVI-018) Dairy Management and Entrepreneurship	Dr. Neeraj Sharma

## **Diploma Programme in Dairy Technology (DDT)**

### **Counseling Schedule for PRACTICAL year 2022**

Sl. No.	Practical (Date)	Code & Title of the Course	Session	SI. No. & Title of the Experiments	Teacher
1.	21/09/2022	Introduction to the Practical	1	Orientation to Practical/ Lab	Dr. Manohar Sain
		Course -1 (BPVI-011) Milk Production and Quality of Milk	2	1. Identification of different milch breeds of cattle, buffaloes, goats and external anatomy of dairy animals 2. Judging of dairy animals 6. Clean milk production	Dr. Mohan Choudhary
2.	22/09/2022	Course-I (BPVI-011) Milk Production and Quality of Milk	3	3. Identification of various feeds and fodders for dairy animals 4. Preparations of balanced rations, calf starters, milk replacer and feeding of calves 5. Housing of animals and maintenance of hygienic conditions at farm 7. Field/Farm visits	Dr. Mohan Choudhary
			4	1. Preparation of standard 0.1N sodium hydroxide solution 2. Preparation of standard 0. IN hydrochloric acid 3. Preparation of gerber acid for	Dr. Manohar Sain
3.	23/09/2022	Course -1 (BPVI-011) Milk Production and Quality of Milk	5	4. Sampling of milk 5. Platform test - (i) colt - on - boiling test 6. Platform test - (ii) alcohol test 7. Platform test- (iii) sediment test	Dr. Manohar Sain
			6	8. Determination of fat in milk by Gerber method 9. Determination of solid - not - fat (SNF) in	Dr. Manohar Sain
4.	24/09/2022	Course-I (BPVI-011) Milk Production and Quality of Milk	7	11. Specific gravity of milk 12. Determination of titratable acidity	Dr. Manohar Sain
			8	14. Detection of starch in milk 15. Detection of cane sugar in milk 16. Detection of glucose in milk	Dr. Manohar Sain
5.	27/09/2022	Course-I (BPVI-011) Milk Production and Quality of Milk	9	17. Detection of urea in milk 18. Detection of ammonium sulphate in milk 19. Detection of sodium carbonate or bicarbonate as neutralizer in milk	Dr. Manohar Sain
			10	20. Resazurin reduction test 21. Methylene blue reduction (MBR) test 22. Preparation of microbial media	Dr. Manohar Sain
6.	28/09/2022	Course-I (BPVI-011) Milk Production and Quality of Milk	11	23. Demonstration of presumptive coliform test 24. Demonstration of standard plate count	Dr. Manohar Sain

	29/09/2022	Course-II (BPVI-012) Dairy Equipment and Utilities	12	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	Dr. Mohan Choudhary
7.	30/09/2022	Course-II (BPVI-012) Dairy Equipment and Utilities	13	5. Study and sketch the details of milk tanker, storage tanks and silos	Dr. Mohan Choudhary
			14	6. Study of refrigeration system: compressor (reciprocating), condensers (shell & tube, atmospheric) and expansion devices (thermostatic) expansion valve/capillary tube) Study of parts and operation of a cold storage plant and an ice bank unit	Dr. Mohan Choudhary
3.	06/10/2022	Course - II (BPVI-012) Dairy Equipment and Utilities	15	9. Study different parts and learn the operation of plate chiller and bulk milk cooler 4. Dismantling and assembling of milk pumps	Dr. Mohan Choudhary
			16	10. Study of water supply system and water softening plant 12. Study of a dairy effluent plant	Dr. Neeraj Sharm
9.	07/10/2022	Course-II (BPVI-012) Dairy Equipment and Utilities	17	11 Study the constructional details of Fire tube and water tube boilers 15. Study of different safety measures to be adapted in a dairy plant. 16. To study the control and safety mountings of a steam	Dr. Mohan Choudhary
			18	13. To study the different parts of single-phase and three phase induction motors 14. Starting of 3 phase squirrel cage induction motors by direct on line and star-data starter	Dr. Mohan Choudhary
10.	10/10/2022	Course-III (BPVI-013) Milk Processing and Packaging	19	1. Reception of milk 2. Straining, filtration & clarification of milk 3. Chilling & storage of milk	Dr. Mohan Choudhary
			20	4. Study of cream separator 5. Study of separation of milk 6. Standardization of milk	Dr. Mohan Choudhary
11.	11/10/2022	Course-III (BPVI-013) Milk Processing and Packaging	21	7. Study of batch pasteurizer and high temperature short time (HTST) pasteurizer 8. Pasteurization of milk 9. Determination of efficiency of pasteurization	Dr. Mohan Choudhary
			22	10. Study of homogenizer, homogenization of milk and determination of homogenization efficiency	Dr. Mohan Choudhary
12.	12/10/2022	Course-III (BPVI-013) Milk Processing and Packaging	23	11. Study of Milk Sterilizer, Sterilization of Milk and Determination of Sterilization efficiency 13. Preparation of Flavoured Milk, Reconstituted Milk, Toned and Double Toned Milk	Dr. Manohar Sain
			24	12. Study of packaging system of milk	Dr. Mohan Choudhary

13	13/10/2022	Course-IV (BPVI-014) Dairy Products - I	25	14. Cleaning of equipment 15. Sanitization of equipment 16. Assessment of cleaning and sanitization efficiency	Dr. Mohan Choudhary
			26	1. Preparation and standardization of cream	Dr. Mohan Choudhary
14	14/10/2022	Course-IV (BPVI-014) Dairy Products - I	27	3. Preparation of butter starter 4. Preparation of cream for butter	Dr. Mohan Choudhary
			28	5. Construction and operation of power chum 6. Construction and operation of butter packaging machine	Dr. Mohan Choudhary
15	15/10/2022	Course-IV (BPVI-014) Dairy Products -	31	9. Preparation of <i>ghee</i> 10. Agmark grading of <i>ghee</i>	Dr. Mohan Choudhary
		Course-V(BPVI-015) Dairy Products - II	32	1. Preparation of <i>khoa</i>	Dr. Mohan Choudhary
16	17/10/2022	Course -V(BPVI-015) Dairy Products - II	33	3. Preparation of <i>peda</i> 4. Preparation of <i>burfi</i>	Dr. Mohan Choudhary
			34	2. Preparation of <i>gulabjamun</i>	Dr. Mohan Choudhary
17	18/10/2022	Course -V (BPVI-015) Dairy Products -	35	6. Preparation of <i>kalakand</i> and milk	Dr. Mohan Choudhary
			36	8. Preparation of Chhana	Dr. Mohan Choudhary
18	19/10/2022	Course-V(BPVI-015) Dairy Products - II	37	13. Preparation of paneer	Dr. Mohan Choudhary
			38	10. Preparation of <i>sandesh</i> 11. Preparation of <i>rasmalai</i>	Dr. Mohan Choudhary
19	20/10/2022	Course-V(BPVI-015) Dairy Products - II	39	9. Preparation of <i>rasogolla</i> 12. Preparation of <i>Chhena Murki</i>	Dr. Mohan Choudhary
			40	5. Preparation of <i>rabri</i> 7. Preparation of <i>kheer</i>	Dr. Mohan Choudhary
20	21/10/2022	Course-V(BPVI-015) Dairy Products - II	41	14. Study of vacuum pan/double effect/ triple effect of evaporator	Dr. Mohan Choudhary
			42	15. Study of manufacture of spray dried	Dr. Mohan Choudhary
21	22/10/2022	Course-V(BPVI-015) Dairy Products - II	43	16. Preparation of value added products from dried milk-dairy whitener	Dr. Mohan Choudhary
			44	17. Visit to dairy product manufacturing plant (Ghee, Butter, Khoa, Dahi)	Dr. Mohan Choudhary
22	01/11/2022	Course- VI (BPVI-016) Dairy Products - III	45	1. Preparation of starter culture 2. Preparation of <i>dahi</i>	Dr. Mohan Choudhary
			46	3. Preparation of <i>mishti dahi</i> 5. Preparation of yoghurt	Dr. Mohan Choudhary
23	02/11/2022	Course- VI (BPVI-016) Dairy Products - III	47	6. Preparation of <i>shrikhand</i>	Dr. Mohan Choudhary
			48	4. Preparation of <i>lassi</i> / fermented drinks/ salted butter milk	Dr. Mohan Choudhary
24	03/11/2022	Course- VI (BPVI-016) Dairy Products - III	49	11. Calculation of ingredients for ice cream mix 12. Preparation of ice-cream mix 13. Preparation of ice cream and determination of overrun	Dr. Mohan Choudhary

			50	16. Preparation of softy 17. Manufacture of kulfi	
25	04/11/2022	Course- VI (BPVI- 016) Dairy Products - III	51	18. Manufacture of casein 19. Study of manufacture of lactose	Dr. Mohan Choudhary
			52	7. Preparation of cheddar cheese from cow milk	Dr. Mohan Choudhary
26	05/11/2022	Course- VI (BPVI- 016) Dairy Products - III	53	8. Preparation of mozzarella cheese 9. Preparation of processed cheese 10. Preparation of processed cheese	Dr. Mohan Choudhary
			54	15. Visit to cheese factory	Dr. Mohan Choudhary
27	07/11/2022	Course-VII(BP VI-017) Quality Assurance	55	1. Familiarization with laboratory equipment and instruments  4. Determination of fat in milk, cream, butter, khoa, paneer, Ice cream, milk powder	Dr. Neeraj Sharma
			56	6. Determination of solubility of milk powder 7. Determination of acid value in	Dr. Mohan Choudhary
28	09/11/2022	Course-VII (BPVI- 017) Quality	57	8. Microbiological analysis of milk	Dr. Manohar Sain
			58	9. Microbiological analysis of air and water.	Dr. Manohar Sain
29	10/11/2022	Course- VII(BPVI-017) Quality Assurance	59	11-15. Sensory evaluation of milk, cream, butter, ghee, ice	Dr. Manohar Sain
			60	16-20. Sensory evaluation of khoa, paneer, milk powder, shrikhand, cheese and other products	Dr. Manohar Sain
30	11/11/2022	Course- VII(BPVI-017) Quality Assurance	61	2. Listing of quality control agencies at national level and international level 3. Standards specification (chemical and microbiological) of milk and milk products	Dr. Manohar Sain
		Course- VIII(BPVI- 018) Dairy Management and	62	7. Identification of entrepreneurial skills	Dr. Neeraj Sharma
31	14/11/2022	Course-VIII (BPVI- 018) Dairy Management and Entrepreneurship	63	3. Visit to nearby dairy cooperative society and study working aspects 4. Calculation of milk payment based on fat and two axis pricing policy of Dairy Cooperative Society	Dr. Manohar Sain Dr. Mohan Choudhary Dr. Neeraj Sharma
			64	5. Designing milk routes based on data. 6. Preparation of ledger, trial-balance and balance- sheet of DCS.	Dr. Mohan Choudhary
32	15/11/2022	Course- VIII (BPVI- 018) Dairy Management and Entrepreneurship	65	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 12. Preparation of check list for	Dr. Mohan Choudhary

			66	11 .Visit a nearby milk union/dairy and study the store-keeping practices, inventory control, and maintenance of various records preparation	Dr. Mohan Choudhary
33.	16/11/2022	Course- VIII (BPVI- 018) Dairy Management and Entrepreneurship	67	9. Prepare a questionnaire to assess strength and weakness of any milk or milk product marketing by a nearby milk union or a dairy and also administer it.	Dr. Manohar Sain
			68	10.Visit a nearby milk union/dairy and prepare a checklist of problems in procurement and milk distribution.	Dr. Mohan Choudhary
34.	17/11/2022	Course- VIII (BPVI- 018) Dairy Management and	69	13. Load estimation of utilities	Dr. Mohan Choudhary
			70	8. Prepare a project report to set up milk parlour/a small dairy plant.	Dr. Neeraj Sharma
35.	18/11/2022	Course- VIII (BPVI- 018) Dairy Management	71	14. Market information report on different dairy products/Preparation	Dr. Neeraj Sharma
			72	14. Preparation of bankable report	Dr. Neeraj Sharma

### B. Unguided Practicals

	Practical (Days)	Course Code and Title
36.	19/11/2022	Course-1 (BPV1-011) Milk production and Quality of milk
		Course-11 (BPVI-012) Dairy Equipment and utensils
37.	21/11/2022	Course-411 (BPVI-013) Milk packaging rod packets
		Course-IV (BPM-014) Dairy Products -I
38.	22/11/2022	Course - V (BPV1-015) Dairy Produce - II
		Course -VI (BPVI-016) Dairy Products-I
39.	23/11/2022	Course-VII (BPVI-017) Quality Assurance
		Course-VIII (BPVI-018) Dairy Management and Entrepreneurship