


Indira Gandhi National Open University- Study Centre- 27120 (P)

Department of Dairy Science and Technology, Janta Vedic College, Baraut (Baghpat)

Diploma in Dairy Technology (40 Guided 4 hours & 08 unguided of 2 hours each)

Counseling Schedule for Practical, Session –July 2022

Day s No.	Days, Date and Time	Time	Se ssi on No	Serial No. And Title of the experiment	Name of the counsellor
1	08.01.2023 Sunday 8.30-12.30 Noon	BPVI-011 Milk production and quality of milk	1	1. Identification of different milch breeds of cattle, buffalo, goats and external anatomy of dairy animals. 2. Judging of dairy animals. 3. Identification of various feeds and folders for dairy animals.	Mr. Gyanendra Singh
	12.30 -4.30 PM	BPVI-011 Milk production and quality of milk	2	4. Preparation of balanced ration, calf starter, milk replacer and feeding of calves. 5. Housing of animals and maintenance of hygienic condition at farm. 6. Clean milk production 7. Field and farm visit.	Dr. Devesh Gupta
2.	15.01. 2023 Sunday 8.30-12.30 Noon	BPVI-011 Milk production and quality of milk	3	1. Preparation of standard 0.1N sodium hydro oxide solution. 2. Preparation of standard 0.1N hydrochloric acid solution. 3. Preparation of Gerber acid for determination of fat in milk. 4. Sampling of milk.	Mr. Monu Kumar
	12.30 -4.30 pm	BPVI-011 Milk production and quality of milk	4	5. Plate form tests-(I) clot in boiling. 6. Plate form Test-(II) alcohol test. 7. Plate form tests- (III) sediment test. 8. Determination of fat in milk by Gerber method. 9. Determination of solid not fat in milk. 10. Determination of total solids in milk. 11. Determination of specific gravity in milk. 12. Determination of Titrable acidity	Mr. Monu Kumar


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				in milk.	
3.	22.01.2023 Sunday 8.30-12.30 Noon	BPVI-011 Milk production and quality of milk	5	13. Determination of pH of milk. 14. Determination of Starch in milk. 15. Determination of cane sugar in milk. 16. Detection of glucose in milk. 17. Detection of urea in milk. 18. Detection of ammonium sulphate in milk. 19. Detection of sodium carbonate or bicarbonate as neutralizer in milk.	Mr. Monu Kumar
	12.30 -4.30 PM	BPVI-011 Milk production and quality of milk	6	20. Resazurin test. 21 Methylene blue reduction test. 22. Preparation of microbial media. 23. Demonstration of presumptive coli form test. 24. Demonstration of standard plate count methods. 25. Staining methods.	Dr. Mahesh Kumar
4.	29.01.2023 Sunday 8.30- 12.30 Noon	BPVI-012 Dairy equipment & utilities	7	1. To learn elementary layout drawings of utilities. 2. Study of various workshop tools. 3. Study of different sanitary S. S. Pipe, fitting and gaskets.	Dr. Anil Kumar Gupta
	12.30 -4.30 PM	BPVI-012 Dairy equipment & utilities	8	4. Dismantling and assembling of milk pumps. 5. Study and sketch the details of milk tankers, storage tank and silos.	Dr. Anil Kumar Gupta
5.	05.02.2023 Sunday 8.30-12.30 Noon	BPVI-012 Dairy equipment & utilities	9	6. To study different types of thermometers, pressure gauge and flow meters. 7. Study of refrigeration system.	Mr. Gyanendra Singh
	12.30 -4.30 PM	BPVI-012 Dairy equipment & utilities	10	8. Study of part and operation of a cold storage plant and an ice bank unit. 9. Study different part and learn the operation of plate chiller and bulk milk cooler.	Mr. Gyanendra Singh
6.	12.02.2023 Sunday 8.30-12.30 Noon	BPVI-012 Dairy equipment & utilities	11	10. Study of water supply system and softening plant. 11. Study the constructional details of a fire tube boiler and water tube boilers. 12. Study of a dairy effluent plant.	Dr. R. K. Atrey
	12.30 -4.30 PM	BPVI-012 Dairy equipment & utilities	12	13. To study the different parts of single phase and three phases induction motors. 14. Starting of 3 phases squirrel cage	Dr. R. K. Atrey

				motors by direct on line and star data starter. 15. Study of different safety measures to be adopted in a dairy plant. 16. Study the control and safety mounting of a steam boiler.	Dr. Anil Kr. Gupta
7.	15.02.2023 Wednesday 8.30-12.30 Noon	BPVI-013 Milk processing and packaging	13	1. Reception of Milk. 2. Straining filtration and clarification of milk. 3. Chilling and storage of milk. 4. Study of cream separator. 5. Study of separation of milk.	Dr. Anil Kr. Gupta
	12.30 -4.30 PM	BPVI-013 Milk processing and packaging	14	6. Standardization of milk. 7. Study of batch pasteurizer and high temperature short time pasteurizer. 8. Pasteurization of milk.	Dr. Anil Kr. Gupta
8.	18.02.2023 Saturday 8.30-12.30 Noon	BPVI-013 Milk processing and packaging	15	9. Determination of efficiency of pasteurization. 10. Study of homogenization of milk and determination of homogenization efficiency. 11. Study of sterilizer, sterilization of milk and determination of sterilization efficiency. 12. Study of packaging system of milk.	Dr. R. K. Atrey
	12.30 - 4.30 PM	BPVI-013 Milk processing and packaging	16	13. Preparation of flavoured milk, reconstituted toned and double toned milk. 14. Cleaning of equipments. 15. Sanitization of equipment. 16. Assessment of cleaning and sanitization efficiency.	Dr. R. K. Atrey
9.	19.02.2023 Sunday 8.30-12.30 Noon	BPVI-014 Dairy Products -I	17	1. Preparation and standardization of cream. 2. Preparation of sterilization cream. 3. Preparation of Butter starter. 4. Preparation of cream for butter making	Dr. Devesh Gupta
	12.30 - 4.30 PM	BPVI-014 Dairy Products -I	18	7. Preparation of deshi butter (makhhan), table butter and cooking butter. 10. Preparation of Ghee.	Dr. Devesh Gupta
10.	26.02.2023 Sunday 8.30- 12.30 Noon	BPVI-014 Dairy Products -I	19	5. Construction and operation of power churn. 6. Construction and operation of butter packaging machine.	Dr. Anil Kr. Gupta


					8. Cooking butter by hand operated methods.	
	12.30 - 4.30 PM	BPVI-014 Dairy Products -I	20	9. Study of manufacture of table butter by power churn. 11. Ag-mark grading of Ghee.	Dr. Anil Kr. Gupta	
11.	05.03.2023 Sunday 8.30-12.30 Noon	BPVI-015 Dairy Products -II	21	1. Preparation of Khoa. 2. Preparation of Gulabjammun. 3. Preparation of Peda. 4. Preparation of Burfi.	Mr. Gyanendra Singh	
	12.30 -4.30 PM	BPVI-015 Dairy Products -II	22	4. Preparation of Rabri. 5. 6. Preparation of Kalakand. 6. 7. Preparation of milk cake. 7. Preparation of Kheer.	Mr. Gyanendra Singh	
12.	08.03.2023 Wednesday 8.30-12.30 Noon	BPVI-015 Dairy Products -II	23	8. Preparation of Chhena. 9. Preparation of rasgolla. 10. Preparation of sandesh.	Dr. R.K. Arey	
	12.30 -4.30 PM	BPVI-015 Dairy Products -II	24	11. Preparation of rasmalai. 12. Preparation of chhana murki. 13. Preparation of Paneer.	Dr. R.K. Arey	
13.	12.03.2023 Sunday 8.30-12.30 Noon	BPVI-015 Dairy Products -II	25	14. Study of vacuum pan/ double effect/ triple effect evaporator. 15. Study of manufacture of spray dried milk powder. 16. Preparation of value added products from dried milk dairy wheiener.	Mr. Gyanendra Singh	
	12.30 -4.30 PM	BP VI- 016 Dairy Products -III	26	1. Preparation of starter culture. 2. Preparation of Dahi. 3. Preparation of Mishiti Dahi	Mr. Monu Kumar	
14.	19.03.2023 Sunday 8.30-12.30 Noon	BP VI- 016 Dairy Products -III	27	4. Preparation of lassi. 5 Preparation of Yohurt 6. Preparation of srikhand. 7. Preparation of echeddar cheese from cow milk.	Dr. Anil Kr Gupta	
	12.30 -4.30 PM	BP VI- 016 Dairy Products -III	28	8. Preparation of mozzarella cheese. 16. Preparation of softy. 9. Preparation of processed cheese. 10. Preparation of processed cheese spread. 11. Calculation of ingredient for ice-cream mix.	Dr. Anil Kr Gupta	
15.	22.03.2023 Wednesday 8.30-12.30 Noon	BP VI- 016 Dairy Products -III	29	18. Manufacture of casein. 19. Study of manufacture of lactose	Mr. Gyanendra Singh	
	12.30 -4.30 PM	BP VI- 016 Dairy Products	30	12. Preparation of ice-cream mix. 13. Preparation of ice-cream and	Mr. Gyanendra	


		-III		determination of overrun. 17. Preparation of Kulffi.	Singh
26.03.2023 Sunday 8.30-12.30 Noon		BP VI- 015 Dairy Products -II	31	17. Dairy Plant visit	Dr. Rajesh Gupta (P.L.)
12.30 PM	-4.30	BP VI- 016 Dairy Products -III	32	14-15 visit of ice-cream plant and cheese factory	Dr. Rajesh Gupta
30.03.2023 Thursday 8.30-12.30 Noon		BP VI- 017 Quality Assurance	33	1. Familiarization with laboratory equipment and instruments. 2. Listing of quality control agencies at national and international level. 3. Standards specification of milk and milk products. 10. In line testing by rince and swab methods.	Dr. Anil Kr Gupta
12.30 PM	-4.30	BP VI- 017 Quality Assurance	34	4. Determination of fat in milk cream, butter, khoa, ice-cream, milk powder. 5. Determination of titrable acidity and pH of milk and milk products. 6. Determination of solubility of milk powder. 7. Determination of acid value in ghee.	Dr. Anil Kr Gupta
02.04.2023 Sunday 8.30-12.30 Noon		BP VI- 017 Quality Assurance	35	8. Microbiological analysis of milk products. 9. Microbiological analysis of water.	Dr. Mahesh Kumar
12.30 PM	-4.30	BP VI- 017 Quality Assurance	36	11-17 sensory evaluation of milk, butter, ghee, dahi, ice-cream, khoa, paneer, cheddar cheese, milk powder and srikhand.	Dr. Devesh Gupta
04.04.2023 Tuesday 8.30-12.30 Noon		BP VI- 018 Dairy management and Entrepreneursh ip	37	1. Identification of source for milk losses during processing of milk and preparation of milk product, preparation of check list for controlling losses. 2. Identification of parameters for production efficiency. 3. Study of working of a co-operative society. 4. Calculation of milk payment based on fat and two axis pricing policy of dairy cooperative society.	Dr. R. K. Atrey
12.30 PM	-4.30	BP VI- 018 Dairy management	38	5. Designing of milk collecting route based on data. 6. Preparation of ledger, trial balance	Dr. R. K. Atrey

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12.30 PM	-4.30	BPVI-017 Quality Assurance BPVI-018 Dairy management and Entrepreneursh ip	07 08	UNGUIDED PRACTICAL EXAMINATION UNGUIDED PRACTICAL EXAMINATION	
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In case of absence of any of the counselor in any session, class will be taken by available counselor.


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