

INDUSTRIAL VISIT

TO

PARLE FACTORY

&

SANCHI DUGDH SANGH

ORGANISED BY

Department of Biochemistry

UNDER THE AEGIS OF

MPHEQIP & World Bank Project

6 January 2023



स्थापना वर्ष - 1963

Govt. Maharani Laxmi Bai PG Girls College, Indore

प्रति,

प्राचार्य,

शा. म. ल. बाई कन्या स्नातकोत्तर महाविद्यालय,
किला भवन ,इंदौर (म. प्र.) ।

विषय: सत्र 2022-23 में जीवरसायन विभाग द्वारा MPHEQIP के अंतर्गत इंडस्ट्रियल
विजिट करने की अनुमति बाबद ।

महोदय ,

निवेदन है कि उपरोक्त विषयान्तर्गत जीवरसायन विभाग द्वारा MPHEQIP के
अंतर्गत इंडस्ट्रियल विजिट दिनांक 06. 01. 2023 को आयोजित किया जाना है।
जिसमें छात्राओं को उक्त विजिट हेतु पार्लेजी फैक्ट्री, सांवेर रोड, तथा साँची दुग्ध
संघ, मांगलिया ले जाना निश्चित हुआ है, अतः विभाग को आवंटित बजट रु.
20000 /- (अक्षरी बीस हजार) का उपयोग करते हुए आयोजन की अनुमति देने का
कष्ट करे ।

सधन्यवाद ।

नियमानुसार अनुमति

05/01/23

प्राचार्य,

शासकीय महाराजो लक्ष्मीबाई
स्नातकोत्तर कन्या महाविद्यालय
किला भवन, इंदौर

प्रभारी

डॉ. वंदना गुप्ता
जीवरसायन विभाग

Report

The Biochemistry Department planned and organized an Industrial Visit on Jan. 6, 2023 for the students of Biochemistry. Total 29 students participated in this visit. A 30 seater bus was hired for this visit.

Purpose of the Visit:

This visit was planned to provide students practical knowledge of working procedures of the Industry and also to expose students to a real working environment. Through Industrial visits students may get internship opportunities and sometimes even employment also. They will come to know the new technologies being used for production, management, quality control and distribution of the product.

During this visit following two industries were visited -

1. Parle Factory, Sanwer Road, Industrial Area, Indore
2. Sanchi Dudh Sangh, Talawali Chanda, Indore

Details of each industry is given below in separate captions.

1. Parle Factory:

Parle Factory is located at Sanwer Road, Industrial area, Indore. This factory was established in 2002 and run by Mr. Pradeep Badlani. Parle is the largest biscuit seller in the world. Parle products are popular all over the world. List of the Parle's products are as follows-

Biscuits		
Parle G	Krack Jack	Fab Bourbon
Rusk real illaichi	marie	20-20 Gold
Parle G Gold	Monaco	Parle Gluco
Milk Shakti	Kream Bourbon	Milano
Happy - Happy	Magix	
Hide and Seek	Dark Bourbon	

Confectionery Products		
London derry	Gol Gappa	Melody
Clove Mint	Mango Bite	Kismi
Chox	Poppins	Kachha Mango Bites

Snacks	
Monaco Smart Chips	Parle's Wafers
Munchies	Full Toss

Beverages		
Appy	Grappo Fizz	Saint juice
Appy Fizz	Citra	Bisleri (Water)
LMN	Fruiti	

Company executive Mr. Ashish helped us to visit the factory. In the beginning, we were shown an animation film on various products being prepared by the factory followed by the actual procedure of Biscuit preparation. On our visit day Happy- Happy choco biscuit was in production.

Biscuit production plant was on the ground floor while visitors were allowed to watch the production from the first floor and every step of production was clearly visible from the first floor. Process of biscuit production can be explained in following steps-

1. Making dough by mixing the ingredients.
2. Cutting of biscuits through mould.
3. Baking in very large size ovens at 280 degree centigrade.
4. Cooling of biscuits upto 45 degree through moving in conveyer belts.
5. Removal of broken or over baked biscuits manually.
6. Packaging.

Watching the automated biscuits production was an exciting experience for the students. Starting from mixing of ingredients up to packaging all steps were fully automated, except before packaging broken or over baked biscuits were being removed by few employees for quality control.

Photography at the production area was prohibited.

Students were explained that-

- Raw products used for biscuit preparation are checked in the beginning for their Quality through biochemical process and if not found fit for production, they are rejected.
- Sugar in the biscuits is responsible for the structure and hardness of biscuits. Sugar also aids surface coloration of the biscuits.
- Biscuit production through maillard reaction. which is a biochemical reaction, is also known as non- enzymatic browning. It is an extremely complex process and it is the reaction between reducing sugars and proteins by the impact of heat.
- Maillard reaction produces flavour and aroma during the process of biscuit production which can be sensed as soon as we enter the Parle factory.

Thus the students of Biochemistry came to know the biochemical reactions in the process of biscuit production

At the exit students were given the packets of their most popular product 'parle G glucose biscuit'.

2. Sanchi Dugdh Sangh:

Sanchi Dugdh Sangh is a milk processing plant, located at Manglaya Sadak/Talawali Chanada, Indore. Mission of Sanchi is to carry Out activities for promoting, production, procurement, processing, manufacturing and marketing of milk and Milk products for social economic development of the farming community.

Sanchi stores have their Monopoly all over Madhya Pradesh. They sell toned milk and also milk with cream along with other dairy products like paneer, curd, Shrikhand, Rabdi and peda.

The industrial visit started with a 40 minutes presentation by Mr Manoj who briefed about the plant. It was an interactive session where students also asked several Questions. Few Scientific processes during milk processing were explained to students as given below-

- Milk is heated at 72 degree centigrade for 15 seconds and quickly cooled at 10 degree centigrade. Due to the sudden change in temperature the cell membrane of the microorganism in the milk gets ruptured and destroyed.

- Milk Powder is prepared by evaporation of water by boiling the milk under reduced pressure and low temperature.
- Nitrogen gas is used for packaging of peda for increasing the shelf life of peda.

Then Mr. Manoj took the students for a tour of various departments of Sanchi Milk Plant. Various products being prepared by the Sanchi plant are as follows-

Sanchi Products		
Milk	Butter	Flavoured Milk
Ghee	Paneer	Buttermilk
Shrikhand	Gulab Jamun	Lassi
Peda	Icecream	Rabdi

Main product of Sanchi Milk Plant is **Processed milk** in different combinations of fat and SNF as described below-

Sanchi gold milk- Pasteurized sterilized milk containing fats 6% and undigested solids 9%. This milk is available in 200 ml and 500 ml Packs.

Sanchi Shakti- This is pasteurized germ free milk containing 4.5% fats and 8.5% unfermented solids. This milk is available in 500 ml pack size only.

Sanchi Taaza- In this milk fats are 3% and unaltered solid matter is 8.5%. This milk is available in 500 ml pack size only.

Sanchi Smart- This is pasteurized germ free milk containing 1.5% fats and 9.0% unaltered solids. This milk is available in 200 and 500 ml pack sizes.

Sanchi cow milk- Pasteurised germ free containing 6% fat and 9% of Solid Not Fat. This milk is available in 500 ml pack size.

Other products of Sanchi Dugdh Sangh Apart from Milk

Ghee: Ghee is the most widely used milk product in Indian families. It is available in 100 ml, 200 ml, 500 ml, 5 kg and 15 kg pack sizes.

Sweets: Various sweets are prepared in Sanchi Milk Plant as given below-

Sanchi Gulab Jamun: This product is made from pure mawa, Ghee, cardamom, rose water and saffron. Available in pack sizes of 500gm and 1Kg.

Sanchi Rabdi: It contains milk & sugar and is available in 100gms pack.

Sanchi Shrikhand: This delicious dairy product is made from fresh chakka, cardamom and sugar. This is available in 100gm and 500gm packs.

Sanchi Peda: This is made with mawa and sugar. This is available in 250gm, 500gm and 1Kg packs.

Dr. S. S. S.
7-2-23

Head,
Department of Bi-chemistry
Govt. New Girls' Coll. Gwalior
Kila Bhowa, INDIA

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7/10/23
प्राचार्य.

शासकीय महारानी लक्ष्मीबाई
स्नातकोत्तर कन्या महाविद्यालय
किला भवन, इन्दौर

Maharani Lakshmi Bai Government Girls PG College

Kila Maidan, Indore (M.P.)



NAAC Accredited B+

Department of Biochemistry

Industrial Visit

(Under the aegis of MPHEQIP & World Bank Project)

Date : 06-01-2023

Feedback form

Date	Name	Class	1. Was the visit to Parle Factory related to your subject-discipline.	2. Was the visit to Parle factory useful for your discipline.	3. Did you understand the procedure of Biscuit preparation n-	4. How would you rate the communication skill of the guide in Parle factory-	5. Was the visit to Sanchi Dugdh Sangh related to your subject-discipline.	6. Was the visit to Sanchi Dugdh Sangh useful for your discipline.	7. Did you understand the procedure of milk products preparation n-	8. How would you rate the communication skill of the guide in Sanchi Dugdh Sangh-	9. Usefulness to your Professional Development-	10. I gained new information from this Industrial Visit-
08-01-2023	poonam gupta	M.Sc Biochemistry IV Sem	yes	Extremely useful	Yes	Excellent	Yes	Extremely useful	Yes	Excellent	Very Useful	Yes
08-01-2023	Diksha Verma	M.Sc Biochemistry II Sem	yes	Extremely useful	Yes	Excellent	Yes	Extremely useful	Yes	Excellent	Useful	Yes
08-01-2023	Jayshree Bariya	M.Sc Biochemistry IV Sem	yes	Useful	Yes	good	Yes	Useful	Yes	Good	Useful	Yes
08-01-2023	Ritu Baghela	M.Sc Biochemistry IV Sem	yes	Useful	Yes	good	Yes	Very Useful	Yes	Good	Useful	Yes
08-01-2023	Shivani bhaleraw	M.Sc Biochemistry IV Sem	yes	Extremely useful	Yes	good	Yes	Very Useful	Yes	Good	Very Useful	Yes
08-01-2023	Sonam meiya	M.Sc Biochemistry IV Sem	yes	Very useful	Yes	Excellent	Yes	Useful	Yes	Good	Very Useful	Yes
08-01-2023	Khushi Khare	B.Sc Biochemistry III Sem	yes	Very useful	Yes	good	Yes	Very useful	Yes	Good	Very Useful	Yes

PHOTOES



