ACA – R-16	**Students' Field Visit – Dept. of Chemistry**	Academic Year:
Rev : 00		Semester: II
Date: 15/06/2018		

Ref: MES/ACSC/ACA/ / Date:01/03/2019

A) Descriptive Report:

Department of Chemistry of the College organized one day Industrial visit on 01/03/2019 to Mula Sugar Factory Sonai, for T.Y.B.Sc (Chemistry) students. The visit was under the supervision of Prof. Todmal. V. B., Prof Jangale M.S. Prof. Salve Y. B., Prof . Miss. Sonawane N. S., Prof. Agale. A.A., for the period from 9:00 am to 5:00 pm. Total 78 students participated in visit .

The Department of Chemistry visited four plants in the factory. Viz.

i) Sugar Plant
ii) Power Plant
iii) Fermentation Plant
iv)Distillation Plant

In the Mula Sugar Factory one of the plant that we visited was Sugar plant. The main source of sugar is sugarcane. Today the quality of sugar has been improved to a great extent as a result of better technique. The harvested sugarcane are transported to the sugar mill by the use of trucks, trailers.etc. Sugarcane is then crushed by using different operations like chopping, pressing and the juice is extracted. Baggasse is thus removed by crushing and milling process. This usually goes to the boilers as fuel. Juice is then purified by clarification, sulphitation, carbonation process. Clarified juice obtained from any of the above methods is concentrated into thick syrup. The thick syrup liquid is concentrated by removing water by heating in a single effect evaporator, called vacuum pan. Then sugar crystals are recovered from the mother liquor by churning in centrifuged machine. The final mother liquor is molasses which is a by-product of sugar industry. The dried sugar crystals are screened, separated in different grades and finally bagged.

Second plant that we visited was power plant. By-product of sugar plant is bagasse, by using bagasse in the boiler steam is produced, and by using steam electricity is generated.

Third plant we are visited is fermentation. In fermentation plant ethyl alcohol is manufactured from Molasses by using yeast.

Another plant that we visited was distillation plant (Fermentation Industry). The Wash or Wort obtained by fermentation process is then distilled in a specially designed continuous still columns, called Coffey Still. The alcohol thus obtained is about 95% pure.

Outcome:-

All T.Y.B.Sc students have reaped the benefits of the visit. The concept from T.Y.B.Sc Chemistry syllabus steps involed in sugar formation, In this visit students understood the actual processes of sugar formation like sugarcane cutting, feeding, juice formation in mill, juice collection and purification by suphitation and lime treatment, juice concentration, massecute formation, centrifugation process in which molasses and sugar separation, sugar grading and packing. Students also understood the management of waste product such as baggase used formation, power generation, alcohol formation from molasses etc.

B) Table Format:

S.N	Date	Time / Duration	Name of Activity	Name of Coordinator	Speakers				No. of Participants			
									Teacher		Students	
					Name	Designation	Contact No	Institute	Male	Female	Male	Female
1	01/03/19	9.00 am to 5.00 pm	Industrial Visit	Prof. Jangle. M.S.	Mr. Tuwar Sir Mr. Darandale Sir	Plant Engineer Lab Incharge	9890841070	Mula Sugar Factory and Distillary	2+3		31+47	

HOD **Principal**