A.S.D.GOVT.DEGREE COLLEGE (W) AUTONOMOUS, KAKINADA

ACTIVITY REGISTER 2019-2020

Date	**27-12-2019**
Conducted through (DRC/JKC/ELF/NCC/NSS/ Departments etc.	Department of Microbiology
Nature of activity (seminar/Workshop/Extn. Lecture etc.,	Invited Lecture
Title of the Activity	**CONTRIBUTIONS OF LOUIS PASTEUR**
Name of the Department/Committee	Microbiology
Details of Resource Persons (Name , Designation etc.,	Dr. A.Praveen kumar ,Veterinary Assistant Surgeon , Animal Disease Diagnostic Laboratory(ADDL), Kakinada.
No of students participated	49
***Brief Report on the activity**	He addressed on contributions of Louis Pasteur , Responsible for souring alcohol and for the pasteurization technique for food preservation , Find the cause of Pebrin disease of silkworm. It is caused by protozoan parasite and he explains the theory of spontaneous generation by his swarn neck experiment and he explains impotance of sterilization in Hospitals. Vaccines for Rabies , Cholera , Anthrax and more. And also talked about Louis Pasteur was attempting to resolve a problem concerning the nature of tartaric acid-achemical found in the sediments of fermenting wine. Scientists were using the rotation of polarized light as a means for studying crystals.
Name of the Lecturers who planned & conducted the activity	Dr. K. Aruna, Lecturer in Microbiology
Signature of In charge of Department	
Signature of the Principal	

Invited Lecture on "Contributions of Louis PASTEUR"

27/12/19 Students Attended

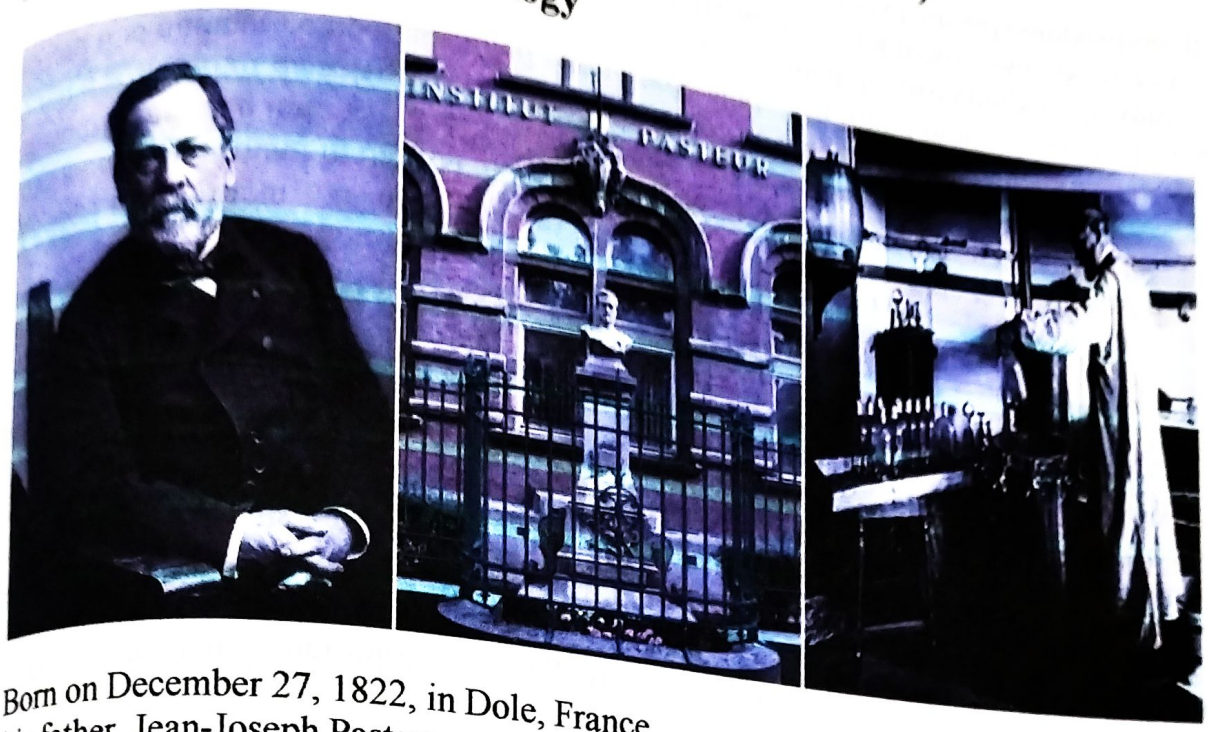
S.NO	NAME OF THE STUDENT	GROUP	SIGNATORE
1.	K. Maulisai	III. BSC - CBMB	K. Maulisai
2.	M. Hymavathi	III BSC - CBMB	M. Hymavathi
3.	Y. Haritha priya	III BSC [CBMB]	Y. Haritha priya
4.	T. Jayalakshmi	III BSC (CBMB).	T. Jayalakshmi
5.	B.V.N. Shreya Sri	III BSc (CBMB)	B. Shreya
6	D. Lavanya	II BSc (CBMB)	D. Lavanya
7	V. surya chandra	II BSC [CBMB]	V. surya chandra
8.	D. Hema Madhavi	II BSc [CBMB]	D. Hema Madhavi
9.	S. Udaya Bhanu.	II BSC [CBMB]	S. Udaya
10	R. Devi	II BSC [CBMB]	R. Devi
11.	V. Sasoni pushpa	II BSC (CBMB)	V. Sasoni Pushpa
12.	V. Niharika	II BSC (CBMB)	V. Niharika
13.	K. Durga Sampathi	II BSC [CBMB]	K. D. Sampathi
14	K. Swetha	II BSC [CBMB]	K. S
15.	P. Durgadevi	II BSC (CBMB)	P. Durgadevi
16.	O. Krishnadevi	II BSC (CBMB)	O. Krishnadevi
17.	T. Rajeswari	II BSC [CBMB]	T. Rajeswari.
18.	V. Kohali	I BSC (CBMB)	V. Kohali.
19.	P. Venkata Lakshmi	I BSC (CBMB)	P. Venkata Lakshmi
20.	K. Ramya kumari	1st BSC (CBMB)	K. Ramya kumari

S.NO	Name of the student	Group	Signature
21	L Likhil	I BSc (CBMB)	L. Likhil
22	S. Para durga	I BSc (CBZ)	S. Paradurga
23	P. Meghana	I B.Sc (CBMB)	P. Meghana
24.	S. Madhuri	I BSc (CBMB)	S. Madhuri
25	P. Hema kumari	I BSc (CBMB)	P. Hemakumari
26	M. S. S. L soujanya	I BSc (CBMB)	M. Soujanya.
27.	Shaik. Khadarunnisa	I B.Sc (CBMB)	Sk Khadarunnisa
28.	ch. Madhavi	III BSc (CBZ)	Ch. Madhavi.
29.	P. Kamakshi	III BSc (CBZ)	P. Kamakshi.
30.	K. chandini	III BSc (CBZ)	K. chandini
31.	P. S. P Salmani	III BSc (CBZ)	P. S. P Salmani
32.	P. Soujanya	III BSc (CBZ)	P Soujanya
33	D. Maha lakshmi	III BSc (CBZ)	D. Maha lakshmi
34.	K. Sandhya Rani	III BSc (CBZ)	K. Sandhya Rani
35	P. Anjali	III BSc (CBZ)	P. Anjali
36.	P. Pujitha	III BSc (CBZ)	P. Pujitha
37	D. Mounika	III BSc (CBZ)	D. Mounika.
38	M. satyasiva Bharathi	III BSc (CBZ)	M. S. S. Bharathi
39	M SRILAKSHMI	III BSc (CBZ)	M. Sri Lakshmi
40	M. Sugunabharathi	III BSc (CBZ)	M. Sugunabharathi

S.NO	Name of the student	Group	signature
41.	J. Ganga Bhavani	III B Sc [CBZ]	J. Ganga Bhavani
42.	S. Hymavathi	II B.Sc [CBZ]	S. Hymavathi
43.	Y. UMA Abrambica	III B.Sc [CBZ]	Y. U. Abrambica
44	P. Sai Sowjanya	II B.Sc (CBMB)	P. Sai Sowjanya
45	P. Sirisha	III BSC (CBMB)	P. Sirisha
46.	P. Hema	IV BSc (CBZ)	P. Hema.
47.	P. Sai sandhya	III BSc (CBMB)	P. Sai sandhya
48	S. Sarika	III Bsc (CBMB)	S. Sarika
49	P Selshi	I B Sc (CBMB)	P Selshi

Louis Pasteur (1822 - 1895)

Father of Modern Microbiology



Born on December 27, 1822, in Dole, France,
his father, Jean-Joseph Pasteur, was a tanner

He earned his bachelor of arts degree (1840) and bachelor of science degree (1842) at the Royal College of Besançon and a doctorate (1847) from the École Normale in Paris.

In 1848, he became a professor of chemistry at the University of Strasbourg,

Contributions of Louis Pasteur

1. He coined the terms Microbiology and Vaccine
2. He rejected the theory of spontaneous generation by his swarn neck experiment. He proposed that life existed from preexisting life.
3. He concluded that, Optically active Compound, Tartaric acid produced from decomposition of sugars in sediments of fermenting wine.
4. Disapproved Spontaneous generation theory (origin of life from non living matter)
5. **He gave the pasteurization technique for food preservation:** Heating at 55 ° C to preserve Wine, Beer and milk.
6. **He gave importance of sterilization in Hospitals.**
7. Discovered the process of Fermentation.
8. **He gave Germ Theory of Disease.** Germ theory states that many diseases were caused by the presence of foreign microorganisms.
9. **He find the cause of pebrin disease of silkworm. It is caused by protozoan parasite.**
10. Developed vaccines for Rabies, Cholera, Anthrax and more.
11. 1888 , Established the prestigious Pasteur Institute in Paris.
12. Pasteur died in paris on September 28, 1895. His body lies in Pasteur Institute of Paris.

- **He carefully studied and discovered various infectious diseases** such as staphylococcus, streptococcus and pneumococcus
- **He also laid the foundation of immunology**
- He gave methods of attenuating microbe
- His germ theory laid path for the utilization of vaccine to prevent disease.
- He **discovered anti rabies vaccine**

- 1855 - 1871 :
- 1865 : Developed the process of Pasteurization.
- 1860 - 1864 : Gave the Germ theory of disease.
- and gave law of biogenesis.
- 1880 :
- Understanding asepsis and sterile techniques in hospitals.

Without Pasteur's work some of us would not even have been alive. His legacy is felt every day in modern world.

Scientist Louis Pasteur came up with the food preparing process known as pasteurization; he also developed a vaccination for anthrax and rabies.

Synopsis

Louis Pasteur discovered that microbes were responsible for souring alcohol and came up with the process of pasteurization, where bacteria is destroyed by heating beverages and then allowing them to cool. His work in germ theory also led him and his team to create vaccinations for anthrax and rabies.

Early Life

French chemist and microbiologist Louis Pasteur was born on December 27, 1822, in Dole, located in the Jura region of France. He grew up in the town of Arbois, and a sergeant major decorated with the Legion of Honor during the Napoleonic Wars. An average student, Pasteur was skilled at drawing and painting. Pasteur then spent several years researching and teaching at Dijon Lycée. In 1848, he became a professor of chemistry at the University of Strasbourg, where he met Marie Laurent, the daughter of the university's rector. They wed on May 29, 1849, and had five children, though only two survived childhood.

First Major Contribution in Chemistry

In 1849, Louis Pasteur was attempting to resolve a problem concerning the nature of tartaric acid—a chemical found in the sediments of fermenting wine. Scientists were using the rotation of polarized light as a means for studying crystals. When polarized light is passed through a solution of dissolved tartaric acid, the angle of the plane of light is rotated. Pasteur observed that another compound called paratartaric acid, also found in wine sediments, had the same composition as tartaric acid. Most scientists assumed the two compounds were identical. However, Pasteur observed that paratartaric acid did not rotate plane-polarized light. He deduced that although the two compounds had the same chemical composition, they must somehow have different structures.

Looking at the paratartaric acid under a microscope, Pasteur observed there were two different types of tiny crystals. Though they looked almost identical, the two were actually mirror images of each other. He separated the two types of crystals into two piles and made solutions of each. When polarized light was passed through each, he discovered that both solutions rotated, but in opposite directions. When the two crystals were together in the solution the effect of polarized light was canceled. This experiment established that just studying the composition is not enough to understand how a chemical behaves. The structure and shape is also important and led to the field of stereochemistry.

Commercial Success

In 1854, Pasteur was appointed professor of chemistry and dean of the science faculty at the University of Lille. There, he worked on finding solutions to the problems with the manufacture of alcoholic drinks. Working with the germ theory, which Pasteur did not invent but further developed through experiments and eventually convinced most of Europe of its truth, he demonstrated that organisms such as bacteria were responsible for souring wine, beer and even milk. He then invented a process where bacteria could be removed by boiling and then cooling liquid. He completed the first test on April 20, 1862. Today the process is known as pasteurization.

Shifting focus, in 1865, Pasteur helped save the silk industry. He proved that microbes were attacking healthy silkworm eggs, causing an unknown disease, and that the disease would be eliminated if the microbes were eliminated. He eventually developed a method to prevent their contamination and it was soon used by silk producers throughout the world.

Pasteur's first vaccine discovery was in 1879, with a disease called chicken cholera. After accidentally exposing chickens to the attenuated form of a culture, he demonstrated that they became resistant to the actual virus. Pasteur went on to extend his germ theory to develop causes and vaccinations for diseases such as anthrax, cholera, TB and smallpox.

In 1873, Pasteur was elected as an associate member of the Académie de Médecine. In 1882, the year of his acceptance into the Académie Française, he decided to focus his efforts on the problem of rabies. On July 6, 1885, Pasteur vaccinated Joseph Meister, a 9-year-old boy who had been bitten by a rabid dog. The success of Pasteur's vaccine brought him immediate fame. This began an international fundraising campaign to build the Pasteur Institute in Paris, which was inaugurated on November 14, 1888.

Personal Life

Pasteur had been partially paralyzed since 1868, due to a severe brain stroke, but he was able to continue his research. He celebrated his 70th birthday at the Sorbonne, which was attended by several prominent scientists, including British surgeon Joseph Lister. At that time, his paralysis worsened, and he died on September 28, 1895. Pasteur's remains were transferred to a Neo-Byzantine crypt at the Pasteur Institute in 1896.

Invited Lecture on Contributions of Louis Pasteur
By Dr. A. Praveen Kumar, VAD, ADDL, Kakinada.