

Gramin (ACS) Mahavidyalaya, Vasantragar,

Tq. Mukhed Dist. Nanded

Department of Physics organized Essay Writing competition on occasion of Science day on the date 24/02/2018 " Importance of Indian Satellite.

Sr. No.	Name of the Students	Class	Marks Obtained (20)	Remark
1	Kinwad Arati Gangadhar	B.Sc - I	14	
2	Kagne Shivkanya Subhash	B.Sc - II	16	I
3	Pimpwar Sampada Nandkumar	B.Sc - II	15	II
4	Chitkulwar Mayuri	B.Sc- I	16	
5	Chitkulwar Shradha Sainath	B.Sc- I	14	
6	Kadam Shashikant L.	B.Sc - II	12	
7	Shinde Parshuram Tukaram	B.Sc- II	12	
8	Shinde Priyanka Tukaram	B.Sc - II	14	
9	Kinwad Vikas Harihar	B.Sc- III	11	
10	Jadhav Sachin Devidas	B.Sc- I	11	
11	Jadhav Prajakta Akshok	B.Sc - II	13	
12	Imade Dnyabai Vilas	B.Sc - II	14	
13	Gaddamwad Shivaji Ananda	B.Sc - I	14	

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IMPORTANCE OF INDIAN SATELLITE

"A Satellite is an object which has been sent into space in order to collect information or to be part of a communications system. Satellites move continually round the Earth or around another planet."

India is fast progressing in the field of space research. It is emerging as a big name in this field. The country is now capable of launching its own spacecraft. In fact, it offers this service to many other countries.

Now India has made landmark progress with the launch of Chandrayaan for its moon mission.

India started its space programme with the launch of first space satellite 'Aryabhatta' on April 19, 1975. This space satellite was named after the great Indian astronomer and mathematician of the 5th century, Aryabhata. It was launched from a Soviet cosmodrome with the help of a Soviet rocket. It marked India's giant leap and made her the eleventh country to join the space club.

The second satellite 'Bhaskara' was launched on June 7, 1979. It was also launched from a Soviet cosmodrome. It was named after two eminent personalities Bhaskara I and Bhaskara II.

It was followed by 'Rohini'. It was the first Indian satellite put into the space by 'SLV-III', an Indian rocket. It was launched from Sriharikota in Andhra Pradesh on July 9, 1980. It was developed by the scientists of ISRO. It was the success of the mission of SLV-III which brought recognition to the space programme of India.

India's fourth satellite 'Rohini II' was launched by the launch vehicle SLV-III from Sriharikota on May 31, 1981. It was designed to provide useful data for 300 days. It was weighted 38 kg. It was known as India's first development rocket flight. Unfortunately, it burnt in space on June 8, 1981, without completing its mission. Bhaskara II, India's fifth satellite in space, was launched on November 20, 1981 from Soviet cosmodrome Volgograd. It was the earth observation satellite. It was a milestone in the space journey of India as it brought to India the honour of being a space nation.

Apple, an experimental geostationary communication satellite, was launched on June 19, 1981. It was launched with French co-ordination. With this, India entered the domestic satellite communication era.

India launched 'INSAT - 1A' on April 10, 1982. India joined the select group of technically advanced countries. But this mission failed on September 6, 1982.

In April 1983, India successfully launched Rohini satellite (RS-D-2). It marked the opening of new horizons for India. India's ninth satellite INSAT - 1B became fully operational in October 1983. It was the World's first geo-stationary satellite combining services like telecommunication, mass communication and meteorological. It was launched in August 1983 from US space shuttle challenger.

India's space programme is primarily driven by the vision of great scientist Dr. Vikram Sarabhai. He is considered as the father of Indian space programme. The main objective of India's space programme has been to promote the development of application of space science and technology for socio-economic benefits of the country.

The launching of Chandrayan I in 2008 marked a milestone in the history of space technology of India. Chandrayan will orbit around the earth for two years. During the period, it will send data to scientists. The scientists with the help of the data will study various

aspects of moon, and will prepare a map of the moon. The map will further help in the study of moon.

Then onward India made successive progress in the field of space research. It launched INSAT series satellite which made India's position stronger in the comity of nation. India has now become self-reliant in terms of launching vehicles and telecommunication services to other countries. The launching of satellites like IRS's, ASLV's, PSLV's have placed India in the exclusive club of four nations - USA, Russia, France and Israel. Captain Rakesh Sharma was the first astronaut of India. Now the country enjoys a respectful position in the countries of the world.

Indian Satellites

Indian Satellites	Key Features
Aryabhatta (19 th April 1975) (Decay date - 11 th Feb 1992)	First Indian satellite. It was built to conduct experiments, in x-ray astronomy, aeronomics, and solar physics.
Bhaskara - (7 th June 1979) (Decay date - 17 th Feb 1989)	First experimental remote sensing Earth observation satellite. carried two TV cameras and satellites microwave Radiometer (SAMIR)
Rohini Technology payload (10 th August 1979)	contained instruments to measure the performance of the launch vehicle, SLV.
Rohini RS - 1 (18 th July 1980) (Decay date - 8 th June 1981)	carried a solid-state camera for remote sensing applications.
Ariane Passenger payload Experiment (APPLE) (19 th June 1981)	First Indian three-axis stabilized experimental geostationary communication satellite

Bhaskara - II (20th November 1981) (Decay date - 30th November 1991)

First Indian satellite for Earth observation from orbit.

INSAT - 1A (Indian National satellite) (10th April 1982)

First operational multipurpose communication and meteorology satellite.

Rohini RS - D2 (17th April 1983)
(Decay date - 19th April 1990)

It was on mission for 17 months.
It carried a smart sensor camera which captured 2500+ pictures.

Carried twelve C and three S band transponders.

INSAT - 1B (Indian National satellite) (30th August 1983)

Eleven C-band and two S-band transponders provided nationwide TV and communications to thousands of remote villages.

provided a detailed weather and disaster-warning service.

 Stretched Rohini
 Satellite Series
 (SROSS - 1) (24th March
 1987)

It conducted astrophysics,
 Earth remote sensing and
 upper atmospheric monitoring
 experiments.

conducted new and novel
 application-oriented missions.

First remote sensing satellite

IRS - 1A (Indian
 Remote Sensing - 1A)
 (17th March 1988)

It was launched to develop
 indigenous remote sensing
 capability.

stretched Rohini
 satellite series
 (SROSS - 2) (13th July 1988)

carried remote sensing payload
 of German space agency in
 addⁿ to Giomma Ray
 Astronomy payload.

INSAT - 1C (Indian
 National satellite)
 (21st July 1988)

Big Govt. agencies like All
 India Radio, Doordarshan,
 Department of Space and
 Indian Meteorological Depart-
 ment were using its
 services.

Cartosat - 2F (10th
Feb 2018)

An Earth observation
satellite.

Microsat - TD
(Microsatellite)
(10th Jan 2018)

India's 100th satellite
in space

INS - 1C (ISRO
Nano satellite) (10th
Jan 2018)

An Indian Nanosatellite
developed by ISRO

GISAT - 6A
(29th March 2018)

A communications
satellite operated by
ISRO.

IRNSS - II
(12th April 2018)

It's an eighth
navigation satellite to
join the IRNSS series.

ISRO (Indian Space Research Organisation)

The Indian Space Research Organisation (ISRO) is the space agency of the Government of Republic of India headquartered in the city of Bengaluru. Its vision is to "harness space technology for national development". ISRO was established in 1969 by replacing the former Indian National Committee for Space Research (INCOISPAR) which was established in 1962 by the efforts of Jawaharlal Nehru, and scientist Vikram Sarabhai.

ISRO built India's first satellite, Aryabhata, which was launched by the Soviet Union on 19 April 1975. It was named after the mathematician Aryabhata. In no more than 5 years, in 1980 ISRO built own Indian-made launch vehicle SLV-3, which placed Rohini the first satellite to be placed in orbit. In 2008, ISRO sent one lunar orbiter, Chandrayaan into the orbit and in 2014 launched a Mars orbiter Mangalyan which successfully entered Mars orbit. This made India the first nation to succeed on its first attempt, and ISRO the fourth space agency in the world as well as the first space agency in Asia to

successfully reach Mars orbit.

This is one of the major achievement in 1983, INSAT (Indian National Satellite System) is the largest domestic communication system in the Asia-Pacific region which is a series of multipurpose geostationary satellites launched by ISRO to satisfy the telecommunications, broadcasting, meteorology and search-and-rescue needs of India. On 18 June 2016 ISRO successfully set a record with launching 20 satellites in a single payload, where one satellite from Google and on 15 February 2017, ISRO launched 104 satellites in a single rocket (PSLV - C37) and created a world record.

Dr. A. P. J. Abdul Kalam and Dr. Vikram Sarabhai along with other scientists were the ISRO's key scientists and visionaries.

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