

Dr. M.K.K Arya Model School
Assignment – Class V
Ch- 13, Invention and Discoveries

Answer the following:-

1. How it has been proved that lightning has an electrical current in nature?

Ans. a) In 1752, Benjamin Franklin flew a kite on a stormy night.
b) He tied a metallic key with the kite and a metallic object on the other side of the thread.
c) Whenever there was a lightning, he could feel a shock on the other end.
Hence it was proved that lightning has an electrical current in nature.

2. Why should we not enter in a pool, in a stormy night?

Ans. We should not enter a swimming pool because water is a good conductor of electricity and can be easily struck by lightning.

3. Why America's first steam engine lost a race to a horse?

Ans. a) Cooper's engine was undergoing testing on tracks.
b) There was a race between his engine and the horse drawn train.
c) The steam engine ran quickly but its belt broke loose, and hence lost a race to a horse.

4. Why there is a need to find out alternate sources of energy against coal?

Ans. Since coal is a non-renewable source of energy and takes millions of years to be formed, so there is a need to find the alternate source of energy against it.

5. Write short notes on:

a) Steam engine - Steam engine was invented by James Watt in 1769. It was introduced to transport goods and people. It was used in the railway engines, ships, electric generators etc. It was also used in heavy pumps to pump out the flooded mines.

b) Petrol engine – It was invented by Daimler and Maybach. It was first used in a motor cycle, then to a stagecoach and a boat.

c) Diesel engine – Rudolf Diesel invented diesel engine. It was first used in submarines and ships. It was also used in railway engines, trucks, cars etc.

6. Why diesel engine became popular?

Ans. Because of some mechanical advantages, diesel engines became popular and were used in submarines and ships.

7. Where was the first railway engine travelled?

Ans. The first railway engine travelled between Stockton and Darlington, in England.

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Assignment – Class V
Ch- 14, Towards healthy living

Answer the following:-

1. How inventions and discoveries in science and technology lead to longevity of people?

Ans. a) Inventions and discoveries of various medicines has reduced pains and sufferings from many diseases.

b) Some diseases have been completely eradicated, which lead to longevity of people.

2. Write a short note on 'Sushruta'?

Ans. a) Sushruta was a surgeon.

b) He performed plastic surgery of nose and ear.

c) He could remove stones from kidneys.

d) He used medicinal plants for curing different diseases.

e) He was also known as 'father of plastic surgery.'

3. What precautions should be taken for reusing the thermometer?

Ans. a) The mercury level does not fall by itself.

b) The thermometer has to be jerked to bring down its level for measuring the temperature.

4. How microscope was invented?

Ans. a) An optical shop owner in Holland saw a fly through two lenses.

b) The fly looked very big.

c) He invented a glass which could magnify things and called it flea glass.

This way microscope was invented.

5. What is a story behind invention of stethoscope?

Ans. a) In 1816, Renne Laennac observed two children playing with a long, narrow, hollow log of wood.

b) One held the log to his ear and other was tapping his nails on the other end.

c) He discovered that we can hear the softest sound.

This leads to the invention of stethoscope.

6. What is Blood pressure?

Ans. a) Blood pressure is a measurement of the force applied by the blood to walls of arteries.

b) It is measured by blood pressure meter called Sphygmometer.

7. How we can prevent diseases?

Ans. We can prevent diseases by immunizing the human body through various vaccines.

8. What was the contribution of Charaka in the field of medical science?

Ans. a) Charaka wrote a book called Charaka Samhita.

b) He mentioned diagnosis and treatment of many diseases in it.

c) He stressed for hygiene in curing diseases.

d) He used medicinal plants for treatment of various diseases.

9. What was the effect of smallpox?

Ans. a) Smallpox was an infectious disease.

b) It mostly affected the children.

c) A person could lose the eyesight or live with deep scars on the face.

10. Who developed the vaccine for smallpox?

Ans. Edward Jenner developed a vaccine for smallpox in 1776.

11. Who discovered Antiseptics?

Ans. Joseph Lister discovered Antiseptics to disinfect wounds as well as surgical instruments.

12. Write short notes on:

Ans. **Pasteurization** – The process of killing germs by heating to a certain temperature is called pasteurization. Louis Pasteur formulated the theory that germs could be killed if water or milk is boiled to a certain temperature.

b) **Chloroform** – Sir James Simpson discovered Chloroform. It makes the person unconscious. It makes the surgery easy as the person could not feel the pain of any kind.

c) **Penicillin** – It was discovered by Alexander Fleming in 1928. It helps in curing diseases like bacterial infections. It is still used by doctors to save the lives of people suffering from infections.

d) **Antiseptic** – Antiseptics are used to disinfect the wounds and surgical instruments to avoid infections. Joseph Lister believed that infections can be prevented if wounds and surgical instruments are disinfected with carbolic acid.

e) **Vaccination** – After the discovery of vaccine for smallpox, many vaccines were developed for various diseases like tuberculosis, cholera, tetanus, polio etc. If a person is vaccinated, he could not have that disease in his life time.

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Assignment – class V
Ch-18, India Wins Freedom

Answer the following:

1. What is the role of Mahatma Gandhi in freedom struggle?

Ans. a) Mohandas Karamchand Gandhi was an Indian leader.

b) He led India's struggle for freedom, since 1915.

c) He fought against the religious and social evils of the society like caste system and untouchability.

d) He believed in truth and non-violence.

e) This period is also called 'Gandhi era'.

2. Why he was called Mahatma?

Ans. He was called Mahatma because of his simplicity and noble ideas.

3. What was Gandhiji's belief?

Ans. Gandhi ji believed that India could not fight with British because they had bigger army with much better weapons. So he adopted the method of Satyagraha to fight against British.

4. What does Satyagraha means?

Ans. Satyagraha means peaceful insistence on the right demands. It is based on truth and non-violence.

5. Describe Khilafat movement and Quit India movement.

Ans. **Khilafat movement** –a) The British promised that they would not take away the power of Sultan of Turkey after the First World War was over. But they didn't keep their promise and hence the movement was started.

Quit India Movement – It was started in 1942 by Gandhi ji. He asked the Indians to fight with British till they left the country. The slogan of the movement was 'Do or die'.

6. Who were revolutionary leaders?

Ans. a) Some leaders believed that only violent methods will force British to leave India.

b) These leaders were: Bhagat Singh, Sukhdev, Rajguru, Chandrashekar Azad etc.

7. Who was known as Frontier Gandhi?

Ans. Khan Abdul Ghafar Khan was popularly known as Frontier Gandhi.

8. What the women's wing of the Indian National Army was called?

Ans. It was called Rani Jhansi Regiment.

9. When British Government decided to leave the country?

Ans. After the Second World War, the British realized that it would not be possible for them to suppress Indians any more. So they decided to leave India.

10. Who was the first President of India?

Ans. Dr. Rajendra Prasad was the first President of India.

11. Who was the first Prime Minister of India?

Ans. Pt. Jawahar Lal Nehru was the first Prime Minister of India.

12. What made Gandhiji realized to fight against British?

Ans. When Gandhiji saw the miserable condition of the Indians, he decided to fight against the British.

13. Describe briefly the Chauri-Chaura incident in UP?

Ans. a) During the Non-cooperation movement, some revolutionary leaders burnt the police station in UP.

b) Twenty-two policemen died in this incident.

c) This hurt Gandhi ji and this movement was called off in 1922.

14. Write short notes on:

a) **Jallianwala Bagh Massacre** – On 13th April, 1919, a meeting was held at Jallianwala Bagh in Amritsar. General Dyer, ordered to fire on the crowd. The firing continued for 10 minutes. Hundreds of men, women and children were killed and thousands got injured.

b) **Simon Commission** – The British Government appointed Simon Commission for some changes in the working of the government in India. This angered the Indians because there were no Indian members in it. They boycotted it and shouted the slogan 'Go back Simon.'

c) **Dandi March** – Civil disobedience movement was started by Gandhiji in 1930. According to British law, collection of salt from sea-coast was an offence. Indians had to pay tax on salt. Gandhiji was against it. He started a march from Sabarmati Ashram in Ahmedabad to Dandi along the Gujarat-coast. There he made salt from the sea water to break the British law.