

INDUSTRIAL REVOLUTION

Question 1: Explain the following:

(a) Women workers in Britain attacked the Spinning Jenny.

Spinning Jenny was a wooden device, invented by James Hargreaves in 1764. The device accelerated the process of production of yarn by spinning several threads at once instead of one thread that was spun by the traditional spinning wheel. Before spinning was a slow process. Yarn was spun usually in homes by women. However, the introduction of spinning Jenny threatened the employment of women on the one hand and it led to the reduction of prices of yarn. Therefore, in 1768, an angry mob marched to the village of Stanhill and smashed 20 spinning Jennies and forced James Hargreaves to fled to Nottingham. Still by Hargreave's death, there were more than 20,000 spinning Jennies functional in England.

(b) In the seventeenth century merchants from towns in Europe began employing peasants and artisans within the villages.

The merchants from the towns in Europe began employing peasants and artisans in the rural areas for the following reasons:

- i) **Increasing in demand:** During 17th Century, there was an unprecedented increase in population in Europe. For example between 1460 and 1620, the population of Europe doubled; On the other hand the demand was further augmented by the colonization of Americas and other continents by Europe. It caused the merchants to employ more and more people in the production activity in Europe.
- ii) **Presence of guilds in town:** The guilds were the association of the producers that maintained control on the production and trade of goods in the towns of Europe. These guilds prevented other people from entering the trade business; therefore many merchants went to rural areas and began employing peasants there in the craft production.
- iii) **Availability of cheap labour in rural areas:** In the rural areas, many people had become landless and unemployed because of enclosures. Therefore, they were ready to work for the merchants, (who gave them raw materials and tools), at the lowest possible wages.

(c) The Port of Surat declined by the end of the eighteenth century.

Surat was the major port on the west coast of India in the pre-colonial (or 17th C) times, generating an annual turnover of Rupees 16 million annually. However by the end of 18th C, the port city faced decline mainly for the following reasons:

a. Decline of Royal patronage (supports):

Most of the ship building activity at Gujarat was promoted by the royal family of the Mughal Empire. The largest ships upto the capacity of 1000 tones were owned by Mughal princes and nobles. Because of the decline of the empire in the 2nd half of 18th century, the royal support to the port city also faded away.

b. Impact of foreign companies:

The foreign companies monopolized Indian trade. Firstly they acquired tax free trading rights in many parts of India, which was disadvantageous for Indian traders. For example the British bought raw materials worth 25 lakhs from Gujarat, which make the Indian merchants dependent on the English. Secondly because of the naval superiority, the Dutch and English companies disallowed Indian ships and let only their own ships to carry goods from Surat. For example the number of ships at Surat declined from 112 in 1701 to 19 in 1741.

c. Establishment of British empire:

The British after consolidating its power gave importance to ports like Calcutta and Bombay. For example they established Bombay. Marine – the Royal India Navy of India at Bombay which eclipsed the glamour of Surat.

(d) The East India Company appointed *gomasthas* to supervise weavers in India.

The most important industry in India was the manufacture of cotton cloth. A Dutch merchant Francisco Pelsaert remarked that the finest cloth made of cotton was available in India which was in great demand in Europe and other places. In order for making quick profits, the British assumed the control of textile and silk industry by the appointment of network of agents called Gomasthas. The Gomasthas would provide loans to Indian weavers thereby binding them to sell their products to the East India Company only. They also decided the quality and price of the goods produced by weavers in India. It was because of Gomasthas that the English served regular and without competition, supply of cloth and silk products from India.

Question 2: Write True or False against each statement:

- (a) At the end of the nineteenth century, 80 per cent of the total workforce in Europe was employed in the technologically advanced industrial sector.
 - (b) The international market for fine textiles was dominated by India till the eighteenth century.
 - (c) The American Civil War resulted in the reduction of cotton exports from India.
 - (d) The introduction of the fly shuttle enabled handloom workers to improve their productivity.
- (a) False (b) True (c) False (d) True

Question 3: Explain what is meant by proto-industrialisation.

Proto-industrialisation is the phase of industrialisation that was not based on the factory system. Before the coming of factories, there was large-scale industrial production for an international market. This part of industrial history is known as proto-industrialisation.

Question 1: Why did some industrialists in nineteenth-century Europe prefer hand labour over machines?

Some industrialists in nineteenth-century England preferred hand labour over machines because there was no labour shortage in the market, and as a result, there was no problem of high wage costs either. Industrialists did not wish to replace hand labour with machines that would require large capital investment. Also, in industries where the production and amount of labour required were dependent on the seasons, hand labour was preferred for its lower costs. Apart from this, many goods could only be manufactured by hand. Machines could provide mass quantities of a uniform product. But the demand was for intricate designs and shapes; this required human skill, and not mechanical technology. Handmade products also stood for refinement and class status. It was commonly believed that machine-made goods were for export to the colonies.

Question 2: How did the East India Company procure regular supplies of cotton and silk textiles from Indian weavers?

After establishing political power, the East India Company successfully procured regular supplies of cotton and silk textiles from Indian weavers via a series of actions. These actions were aimed at eliminating competition from other colonial powers, controlling costs and ensuring regular supplies of cotton and silk goods for Britain. Firstly, it appointed *gomasthas* or paid servants to supervise weavers, collect supplies and examine textile quality. Secondly, it disallowed Company weavers from dealing with other buyers. This was ascertained by a system of giving advances to the weavers for procuring raw materials. Those who took these loans could not sell their cloth to anyone but the *gomasthas*.

Question 3:

Imagine that you have been asked to write an article for an encyclopedia on Britain and the history of cotton. Write your piece using information from the entire chapter.

Britain and the History of Cotton

During the seventeenth and eighteenth centuries, merchants would trade with rural people in textile production. A clothier would buy wool from a wool stapler, carry it to the spinners, and then, take the yarn to the weavers, fuller and dyers for further levels of production. London was the finishing centre for these

goods. This phase in British manufacturing history is known as proto-industrialization. In this phase, factories were not an essential part of industry. What was present instead was a network of commercial exchanges.

The first symbol of the new era of factories was cotton. Its production increased rapidly in the late nineteenth century. Import of raw cotton sky-rocketed from 2.5 million pounds in 1760 to 22 million pounds in 1787. This happened because of the invention of the cotton mill and new machines, and better management under one roof. Till 1840, cotton was the leading sector in the first stage of industrialisation.

Most inventions in the textile production sector were met with disregard and hatred by the workers because machines implied less hand labour and lower employment needs. The Spinning Jenny was one such invention. Women in the woollen industry opposed and sought to destroy it because it was taking over their place in the labour market.

Before such technological advancements, Britain imported silk and cotton goods from India in vast numbers. Fine textiles from India were in high demand in England. When the East India Company attained political power, they exploited the weavers and textile industry in India to its full potential, often by force, for the benefit of Britain. Later, Manchester became the hub of cotton production. Subsequently, India was turned into the major buyer of British cotton goods.

During the First World War, British factories were too busy providing for war needs. Hence, demand for Indian textiles rose once again. The history of cotton in Britain is replete with such fluctuations of demand and supply.

Question 4: Why did industrial production in India increase during the First World War?

Industrial production in India increased during the First World War because British mills became busy with tending to war needs. Manchester imports decreased, and Indian mills suddenly had a huge home market to supply. Later, they were also asked to supply war needs such as jute bags, cloth for army uniforms, tents, leather boots, saddles and other items. There was so much demand that new factories had to be set up even when old ones ran on multiple shifts. Industrial production boomed with the employment of new workers and longer working hours.

Multiple Choice Questions:

- i) In which country did the industrial revolution start?
 - a) Germany
 - b) France
 - c) England
 - d) Japan
- ii) Who invented the Spring Jenny?
 - a) Richard Arkwright
 - b) James Hargreaves
 - c) Samuel Crompton
 - d) Edmund Cartright
- iii) Which was the first industry to be set up in India?

a) Jute

c) Iron and Steel

b) Cotton

d) Sugar

Fill in the Blanks:

- a) Industrial Revolution started with _____.
- b) The invention of cotton gin was made by _____.
- c) The first regular steam boat service in Britain was inaugurated in the year _____.
- d) Tata Iron and Steel Company was established at _____ in the year _____.
- e) _____ Movement also added to the momentum of expansion of the Indian industries.