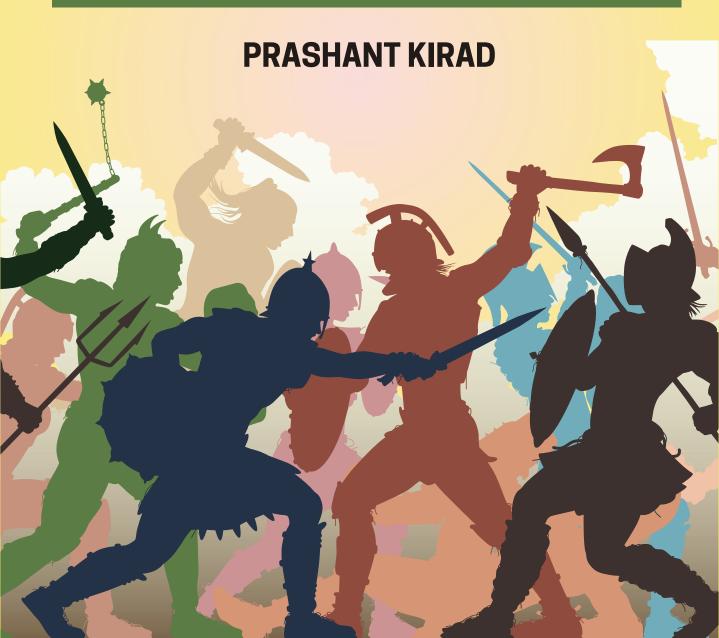
**CLASS 10 NOTES** 

# HISTORY

# The age of industrialisation





# THE AGE OF INDUSTRIALISATION





IN 1900, MUSIC PUBLISHER E.T. PAULL RELEASED A MUSIC BOOK TITLED 'DAWN OF THE CENTURY,' FEATURING A COVER ILLUSTRATION. THE CENTRAL IMAGE DEPICTED A GODDESS-LIKE FIGURE, SYMBOLIZING THE ANGEL OF PROGRESS, HOLDING THE NEW CENTURY'S FLAG. PERCHED ON A WINGED WHEEL REPRESENTING TIME. SHE SOARED INTO THE FUTURE.

SURROUNDING HER WERE SYMBOLS OF PROGRESS.
INCLUDING A RAILWAY, CAMERA, MACHINES, PRINTING PRESS, AND A FACTORY. THE COVER CAPTURED THE SPIRIT OF THE TIME, EMPHASIZING ANTICIPATION AND TECHNOLOGICAL ADVANCEMENT.





Over a century ago, a trade magazine featured a contrasting image of two magicians. Aladdin, symbolizing the East and the past, built a palace with his magic lamp, while the modern mechanic at the bottom used modern tools to construct bridges, ships, towers, and high-rise buildings, symbolizing the West and modernity.

# **PRASHANT KIRAD**

### 1 Before the Industrial Revolution

- Proto-industrialization preceded the establishment of factories in England and Europe, occurring in the 17th and 18th centuries.
- Large-scale industrial production for the global market took place outside factory settings.
- European merchants ventured into rural areas, financially supporting peasants and artisans for the production of goods.
- Restrictions in urban areas led merchants to expand operations in the countryside due to exclusive production and trade rights granted to quilds.
- Impoverished peasants and artisans willingly participated in proto-industrialization to stay in rural areas, continuing small-scale farming, forming a commercial network controlled by merchants.



Fig. 3 – Spinning in the eighteenth century.

You can see each member of the family involved in the production of yarn. Notice that one wheel is moving only one

# E.M.A

# 1.1 The Coming Up of the Factory

The establishment of the earliest factories in England occurred in the 1730s, but it was not until the late eighteenth century that the number of factories significantly increased. A key industry that symbolized this new era was cotton, which experienced a boom in production during the late nineteenth century. Richard Arkwright played a crucial role in this development by creating the cotton mill. These mills housed expensive machinery and centralized all the production processes under one roof, effectively streamlining management and operations.



Fig. 4 – A Lancashire cotton mill, painted by C.E. Turner, The Illustrated London News, 1925.

The artist said: 'Seen through the humid atmosphere that makes Lancashire the best cotton-spinning locality in the world, a huge cotton-mill aglow with electricity in the twilight, is a most impressive sight.'

# 1.2 The Pace of Industrial Change

- Cotton and metals were key sectors in British industrialization.
- The rapid growth of steel and iron usage paralleled the expansion of railroads in England (1840s) and territories (1860s).
- Traditional industries in Britain resisted displacement by emerging counterparts.
- In textiles, a significant portion of production occurred outside factories and homes.
- Simple-mechanized industries thrived on common and minor advances, while the gradual adoption of new technology faced hesitancy due to cost concerns.



Fig. 6 – A fitting shop at a railway works in England, The Illustrated London News, 1849. In the fitting shop new locomotive engines were completed and old ones repaired.

### 2 Hand Labour and Steam Power

In an attempt at employment, poor laborers and the homeless moved to towns in great numbers. As a result, manufacturers faced no labor shortages or expensive wages. Labor was in short supply in many sectors. In all such sectors where output varied with the seasons, manufacturers typically preferred hand labor, hiring employees for each season. In midnineteenth-century Britain, for example, existed over 500 different types of tools and 45 different types of axes. These needed human ability rather than machine technology. People in Victorian Britain favored handcrafted items. In nations where labor is scarce, industrialists have focused on using mechanical force to reduce the demand for human labor.

# 2.1 Life of the Workers



- Abundant labor availability shaped workers' lives, with job access often dependent on existing social networks within factories.
- Securing employment posed challenges until the mid-nineteenth century, but wages began to rise in the early 1800s.
- Worker fear of unemployment fueled resistance to new technologies like the Spinning Jenny in the wooden industry.
- From the 1840s, urban areas saw increased building activity, providing more job opportunities.
   Infrastructure development in the mid-19th century encompassed
- Infrastructure development in the mid-19th century encompassed road widening, railway construction, tunnel digging, drainage systems, and river embankments.

# 3 Industrialisation in the Colonies

Shifting our attention to India, we explore the industrialization of a colony, examining both factory and non-mechanized sectors, with a particular focus on textile industries.

# 3.1 The Age of Indian Textiles CE.M.A

- Preceding the mechanical era, Indian silk and cotton products held sway in the global clothing market.
- Indian dealers and financiers played a pivotal role in the international export trade, managing payments to weavers and acquiring handmade fabric from weaving communities.
- By the 1750s, the dominance of Indian traders in this system began to crumble.
- Trade from traditional ports declined sharply, causing a drying up of credit that had previously fueled early commerce.
- The decline of Surat and Hooghly was accompanied by the expansion of Bombay and Calcutta, marking a shift in colonial authority and the transition from ancient to new ports.

# 3.2 What Happened to Weavers?

Following the 1760s, the ascendancy of the East India Company did not lead to a decline in Indian cloth exports. At that time, the cotton factories in the United Kingdom were not yet prevalent, and the demand for Indian fine fabrics remained strong in Europe. In the woven fabric market, competition ensued among French, Dutch, Portuguese, and local merchants. Upon attaining political influence, the East India Company implemented a system of leadership and control to mitigate conflicts, manage costs, and ensure a steady supply of cotton and silk products.

This was achieved through a series of strategic processes.

- The company sought to replace current dealers and brokers by appointing a salaried overseer, the gomastha, responsible for managing weavers, provisions, and fabric quality.
- The company enforced restrictions, preventing its weavers from interacting with other customers, and compelled individuals in debt to surrender the fabric they produced to the gomastha

# PRASHANT KIRAD

Weavers found contentment with increasing payments from loans and rising demand for fine fabrics, expecting further opportunities for profit. However, the arrival of gomasthas, outsiders without social ties, disrupted communities. These overseers, accompanied by sepoys and peons, imposed penalties on weavers for supply delays. Faced with such challenges, weavers left their communities, establishing workshops in villages where familial ties were stronger. Over time, a significant number of weavers began to reject debts, close their workshops, and transition to agricultural labor.

# 3.3 Manchester Comes to India

In 1772, Henry Patullo noted the consistent demand for Indian textiles, highlighting that no other nation matched the quality of its goods. Nevertheless, in the early 19th century, India witnessed a decrease in textile exports, while British cotton goods experienced a notable surge in exports. As the late 18th century unfolded, the import of cotton-piece goods into India became limited. Indian cotton weavers encountered two primary challenges during this period:

The breakdown of their export market and the shrinkage of the local market, saturated with imports from Manchester, posed significant challenges for Indian cotton weavers.

In the 1860s, weavers faced a fresh issue: a shortage of high-quality raw cotton supply. The rise in the export of raw cotton from India contributed to increased prices. Towards the close of the 19th century, other artisans also confronted additional challenges. The initiation of mass production in Indian factories led to a deluge of machine-made goods, saturating the market.

# 4 Factories Come Up

E.M.A

In 1854, the first cotton mill in Bombay was set up and went into production two years later. By 1862 four more mills were set up, and around the same time, jute mills came up in Bengal. The first jute mill was set up in 1855, and another one after seven years in 1862. In the 1860s, in north India, the Elgin Mill was started in Kanpur, and a year later, the first cotton mill in Ahmedabad was set up. By 1874, the first spinning and weaving mill of Madras began production.

# 4.1 The Early Entrepreneurs

- In the late 18th century, British traders initiated trade history by exporting opium to China and importing tea to England.
- Visionary entrepreneurs like Dwarkanath Tagore in Bengal and Parsis such as Dinshaw Petit and Jamsetjee Nusserwanjee Tata in Bombay recognized the potential for industrial development in India.
- In 1917, Marwari businessman Seth Hukumchand established the first Indian jute mill in Calcutta.
- This period saw the emergence of investment opportunities in various industries, leading to the establishment of multiple factories.
- Colonial restrictions prevented Indians from trading manufactured goods with Europe, limiting them mainly to exporting raw materials and food grains like raw cotton, opium, wheat, and indigo, in demand by the British.
- European Managing Agencies, including Bird Heiglers & Co., Andrew Yule, and Jardine Skinner & Co., played crucial roles in mobilizing capital, establishing joint-stock companies, and managing them.
- The trade landscape was shaped by these restrictions, emphasizing the dominance of raw material and food grain exports, managed by influential European Managing Agencies.

# 4.2 Where Did the Workers Come From?

Factories required labor. This desire is increasing as companies expand. Workers arrived from the surrounding towns in most industrial areas. Millworkers frequently commuted between the village and the city, going back to their village houses for harvests and celebrations. As employment information develop, employees went long distances for the chance of finding work in factories. Even as the number of mills grew and the requirement for workers climbed, finding employment was always challenging. The factories' access was also limited. Over time, the total number of factory employees grew. They were, however, a tiny proportion of the overall industrial workers, as you will see.

### 5 The Peculiarities of Industrial Growth

- European Managing Agencies concentrated on exporting tea, coffee, mining products, indigo, and jute. Meanwhile, Indian businessmen established industries, utilizing yarn from spinning mills for domestic use or export to China.
- The Swadeshi movement and competition from Chinese and Japanese mills contributed to a decline in Indian yarn exports. Industrial growth remained sluggish until the conclusion of World War I.
- The war proved advantageous for Indian mills as they supplied warrelated goods. This period witnessed a flourishing industrial production, causing Manchester to lose its former dominance in the Indian market.

### 5.1 Small-scale Industries Predominate

- Post-war, the expansion of factory sectors was notable, yet they
  constituted only a small segment of the overall economy. Registered
  companies employed a minimal percentage of the entire industrial
  labor force.
- In the twentieth century, there was a rise in handicraft output, and handloom textile manufacturing also experienced growth.
   Technological changes allowed for increased output without significantly raising costs.
- The implementation of new technology varied among weavers, leading to the production of coarse and finer fabrics. However, mills struggled to replicate specialized patterns.
- Despite efforts by weavers and artisans to boost output throughout the twentieth century, success was not always guaranteed.
   Frequently, entire families, including women and children, were required to contribute at various stages of the manufacturing process.

# 6 Market for Goods

Advertisements are one method of attracting new customers.

Advertisements have played a role in extending product marketplaces and forming an emerging customer culture since the dawn of the industrial era. Manchester businessmen applied labels to fabric packages to indicate their grades. Buyers were supposed to feel secure about purchasing the fabric if they saw 'MADE IN MANCHESTER' printed in vibrant on the label.

Labels often showcased illustrations of Indian deities, significant figures like emperors, and widely recognized personalities, much akin to images of saints, adorned advertisements and calendars. The underlying message often implied that if you hold the regal figure in high regard, you must respect the associated product. The narrative suggested that when a product was used by kings or produced under royal leadership, its excellence was beyond question.



### 1. Women workers in Britain attacked the Spinning Jenny because

- The process of spinning was sped up, and the amount of labor required was decreased. One worker was all that was required to operate the Spinning Jenny, which allowed several threads to be spun simultaneously and put in motion a number of spindles by turning a single wheel.
  - Hand spinning was the only kind of employment available to British women laborers.
  - Women who were employed in the woolen sector had a rational concern about losing their jobs as a result of the introduction of the new machine.

# 2. 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.

# 3.In the seventeenth century merchants from towns in Europe began employing peasants and artisans within the villages.

In the seventeenth century, merchants from towns in Europe began employing peasants and artisans within the villages because production in urban areas could not be increased due to the presence of powerful trade guilds. These maintained control over production, regulated prices and competition, and restricted the entry of new people in the trade. Monopolisation was also a common tactic. In the countryside, there were no such rules, and impoverished peasants welcomed these merchants.

# **PRASHANT KIRAD**

# 4. The East India Company appointed gomasthas to supervise weavers in India.

The East India Company appointed gomasthas to supervise weavers in India to establish a more direct control over the weavers, free of the existing traders and brokers in the cloth trade. The gomasthas were the paid servants who supervised the weavers, collected supplies and examined the quality of cloth. The gomasthas ensured that all management and control of the cloth industry came under the British. This helped in eliminating competition, controlling costs and ensuring regular supplies of cotton and silk products

# 5. 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

# 6.Describe any three economic hardship faced by Europe in the 1830s?

- i) Rapid increase in Population was seen all over Europe. In most of countries there were more seekers of jobs than employment. Population from rural areas migrated to the cities to live in over crowed slums.
  - ii) Small producers in towns were often faced with stiff competition from imports of cheap machine made goods from England.
  - iii) In Europe, where the aristocracy still enjoyed power, peasants struggled under the burden of feudal dues and obligations.
  - iv) The rise of food prices as a result of bad harvest led to wide spread pauperism in town and country.

# 7. 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.



1750 : By the 1750s the network controlled by Indian merchants was breaking down

1760 : Britain was importing 2.5 million pounds of raw cotton to feed its Cotton Industry

1760 : After 1760, the colonisation of East India Company power did not immediately cause a reduction in India's textile exports.

1781: James Watt made improvements to the Newcomen steam engine and patented the new engine in 1781.

1787: By 1787 the import of cotton increased to 22 million pounds.

1840: Up to 1840 cotton was the leading sector in the first phase of industrialisation

1850: By the 1850s, reports from the majority of India's weaving regions described tales of decline and misery.

1854 : The first cotton mill in Bombay came up

1874 : By 1874 the first spinning and weaving mill of Madras begin production

1900: Dawn of the century was written

Between 1900 and 1912 : Cotton piece production in India doubled

Between 1900 and 1940 : Cloth production expanded steadily in India specially handloom