

5 THE AGE OF INDUSTRIALISATION

CONCEPT

SECTION A — BEFORE THE INDUSTRIAL REVOLUTION

- **Proto-industrialisation** was the stage when large scale industrial production took place in the absence of modern factories for international market.
- **Acquisition of colonies** and expansion of trade in the 16th and 17th centuries led to greater demands for goods.
- **Trade guilds**, associations of producers, trained craftsmen and artisans. They restricted the entry of new people into the trade.
- A close relationship between town and countryside developed between farmers and merchants.
- Factories emerged in England in the 1730s. Changes brought about in the production process because of inventions in the 18th centuries, e.g. cotton mill by Richard Arkwright.
- Cotton and metal industry (iron and steel) grew rapidly from 2.5 million pounds import of raw cotton in 1760 to 22 million pounds in 1787. By 1873 iron and steel exports rose to 77 million pounds.
- Small and ordinary inventions contributed in many mechanised sectors like food processing, building, pottery, glasswork, tanning.
- Technological changes were slow and expensive till the late 19th century. Traditional craftsmen played an important role at this stage.

SECTION B — HANDLOOM AND STEAM POWER

- Machines played the following role in the 19th century.

Machines	Labour
• They required large capital investment.	There was no labour shortage. Wages were low.
• The wear and tear of machines made investors cautious and wary of dependence on them.	Human labour was more dependable and cheaper in those days.
• Seasonal industries related with gas work, breweries, ship repair, book binders also did not depend on machines.	Hand labour could be easily employed seasonally.
• Machines could produce only limited variety of products like uniforms or products meant for mass production.	Handmade goods were more in demand among the rich and upper classes as a symbol of class and refinement.
• Conflict between technology and tradition led to hostility of workers, machines became a target as they caused unemployment, specially among women workers.	

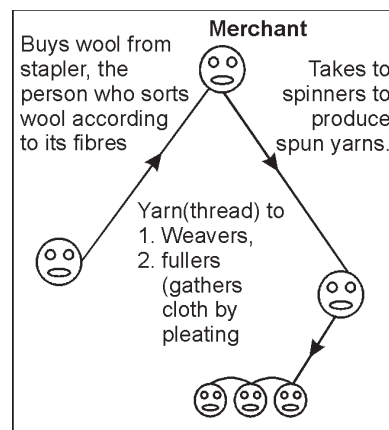
- Invention of Spinning Jenny by James Mangreaves in 1764 reduced labour demand.
- Life improved after 1840s due to massive building activities involving road construction, railways, tunnels, sewers. Number of labour doubled in transport industry.

SECTION C — INDUSTRIALISATION IN THE COLONIES

- India started industrialisation under British rule.
- Pre-colonial industrialisation was slow. Silk and cotton textiles were traditional items of export.
- Exported as far as Afghanistan, Persia, Central Asia, South-East Asia from Surat in Gujarat, Masaulipatnam on Coromandel coast and Hooghly in Bengal.
- Number of merchants and bankers involved in the network of import and export.
- Europeans wrested monopoly of trade in the mid-18th century through concessions from rulers, monopoly rights etc.
- Old ports like Surat were replaced by new ports in Calcutta, Bombay and Madras.
- Textile industry changed dramatically after the conquest of Bengal and Carnatic in the 1760s and 1770s.
- Weavers suffered the most. Forced to work for the company, who acted through their agents called Gomasthas.
- After 1770s, the English controlled trade, eliminated competition, prevented the weavers from dealing with other buyers. They were severely punished for delays.
- There was desertion and migration by farmers of Carnatic and Bengal weavers.
- Manchester came to India in the form of cotton textiles produced in English factories.
- Imposition of import duties on Indian cotton and sale of British goods in Indian markets at cheaper rates led to decline in Indian exports of cotton piece goods.
- Exports fell from 33% in 1811-12 to 3% in 1850-51, whereas imports increased from 31% in 1850-51 to 50% in 1870.
- When Indian factories started producing cotton textiles, it spelt doom for Indian weavers. They were already reeling under the price rise in supply of raw cotton due to American War of Independence.

TIME-LINE of industrial expansion

Years	Expansion
1840s	Cotton
1840's	Railways
1860's	Railways in colonies



SECTION D — FACTORIES COME UP

- Industries were set up by different groups in different places. Most of the entrepreneurs began as investors in trade with China, Burma, Middle East and East Africa.
- Prominent entrepreneurs were :
 1. Bengal : Dwarkanath Tagore
 2. Bombay : Dinshaw Petit and Jamshedji Nusserwanjee Tata
 3. Calcutta : Seth Hukam Chand
 4. Father and grandfather of G. D. Birla

Time line of Indian Mills		
Year	Mills	Place
1854	1st Cotton Mill	Bombay
1855	1st Jute Mill	(East) Bengal
1860	Elgin Mill	Kanpur
1861	Cotton Mill	Ammedabad
1862	4 cotton mills	Bombay
1874	1st spinning and weaving mills	Madras
1917	1st Jute Mill	Calcutta

- Europeans controlled a large section of Indian industries like the Bird Heiglers & Co., Andrew Yule and Jardine Skinner Co.
- Factory workers increased from 5,84,000 in 1901 to 24,36,000 in 1946.
- Workers came from neighbouring district of Ratnagiri to work in cotton industries. Peasants and artisans from Kanpur district came to work in Kanpur Mills and migrant workers from UP to work in Bombay textile mills or jute mills of Calcutta.
- Jobbers became a new group of workers who got villagers to work in cities. They gained importance through commissions and services like housing, rent etc.

SECTION E — THE PECULIARITIES OF INDUSTRIAL GROWTH

- Industrial production in India was dominated by European managing agencies. They produced items of export and not for sale in India—tea, coffee, indigo, jute and mining.
 - To avoid competition with Manchester products, India produced coarse yarn (thread) in the late 19th century. Swadeshi activists, during national movement, mobilised people against use of foreign goods.
 - The First World War led Britain to produce materials for war. Indian factories started producing and supplying war goods, such as jute bags, uniforms, leather boots, horse and mule saddles.
 - After the war, the British lost their economic predominance. New technologies developed in Germany and Japan which took the lead.
- Small-scale industries predominated in India between 1900–1940.

- Large industries were located in Calcutta and Bombay. In 1911, 67% of them were in these two cities.

SECTION F — MARKET FOR GOODS

- A significant features of the 19th century Indian economy was the attempt to dominate it by foreign manufacturers.
- Indian weavers, craftsmen, traders and industries made collective demand for tariff protection, grants or concessions.
- Advertisements became popular as an attempt to increase the sales and win the consumer's confidence.
- Manchester industrialists used their labels on clothes sold in India — “Made in Manchester” was written in bold letters.
- Indians used images of Gods and Goddesses, Emperors and Nawabs on calendars to boost the sales.
- During the nationalist struggle and Swadeshi movement, Indians used advertisements very effectively on papers, journals and magazines.

I. SUMMATIVE ASSESSMENT

A. NCERT TEXTBOOK QUESTIONS

Q.1. Explain why the port of Surat declined by the end of the eighteenth century.

Ans. The European companies gradually gained power by securing concessions and monopoly rights to trade. This resulted in the decline of old ports through which local merchants operated.

Q.2. Explain why the East India Company appointed Gomasthas to supervise the weavers in India.

Ans. The English East India Company appointed Gomasthas for the following reasons:

- To eliminate the existence of traders and brokers and establish a direct control over the weavers.
- To eliminate weavers from dealing with other buyers by means of advances and control. In this manner, weavers who took loans and fees in advance were obligated to the British.

Q.3. Why did industrial production in India increase during the First World War? (2010)

Ans. Till the First World War, industrial growth in India was slow. The war created a dramatically new situation. Manchester imports into India declined due to the war. The British factories became busy with producing things needed for the army. Indian mills now suddenly had a large market to supply. The long war made the Indian factories supply them with jute bags, cloth for army uniforms, tents and leather boots, horse and mule saddles and a host of other items. Many workers were employed for longer hours.

After the war Manchester goods lost their hold on the Indian market. British economy collapsed as it could not compete with the USA, Japan and its European rivals. The Indian industrialists captured the local market. Small scale industries prospered.

Q.4. Explain what is meant by proto-industrialisation. (2010)

Ans. Proto-industrialisation was the stage when large scale industrial production took place in the absence of modern factories for international market. A close relationship between town and countryside developed in which a network of close commercial exchange existed between a merchant and a farmer. The former stayed in town and employed producers working in family farms, not in factories. At each stage of production, about 20 to 25 workers were employed by each merchant.

Q.5. Explain why women workers attacked spinning jenny.

Ans. Many workers, especially women, were opposed to the use of spinning jenny and these machines were targeted and destroyed in many instances of rebellion.

Spinning jenny was capable of speeding up the spinning process and reducing the labour demand. A worker could set in motion a number of spindles and spin several threads at the same time by turning one single wheel.

Naturally, the fear of unemployment which was the biggest problem of England in those days made them hostile to spinning jenny. Women who survived on hand spinning attacked them and the conflict continued for a long time.

Q.6. Why did some industrialists in nineteenth-century Europe prefer hand labour over machines? (2010)

Ans. Machines required large capital investment. Introduction of machines did not necessarily affect the traditional process of production for a long time.

- (i) The need for machines varied according to available labour. Where there was plenty of labour, wages were low. Countries like Britain and USA did not have problem of labour shortage. Industrialists had no problem of labour shortage or high wage costs in these countries.
- (ii) The wear and tear of machines made investors very cautious and wary of full dependence on machines. They preferred human labour which were more dependable and cheaper in those days.

Q.7. Imagine that you have been asked to write an article for an encyclopaedia on Britain and the history of cotton. Write your piece using information from the entire chapter.

Ans. Britain and history of cotton:

- (i) Cotton textile production became the symbol of industrialisation in Britain in the eighteenth century.
- (ii) The invention of cotton mill by Richard Arkwright made cotton production more easier and faster.
- (iii) Factories in England emerged as early as the 1730s and their numbers increased steadily. It was due to changes in the production process of carding (process of preparing cotton or wool fibres prior to spinning), twisting, spinning and rolling.
- (iv) The raw cotton import increased from 2.5 million pounds in 1760 to 22 million pounds in 1787.
- (v) The manufacturing industry of Manchester became the largest producer of cotton textiles which were exported to other countries and to her colonies. They produced fine textiles and industrialisation spread to other towns and cities. With the spread of industrialisation in other European nations, competition was fierce and led to monopoly of trade and colonisation.

Q.8. How did the East India Company procure regular supplies of cotton and silk textiles from Indian weavers? (2010)

OR

What steps were taken by the East India Company to control market of cotton and silk goods?

Ans. The English East India Company used different means to procure silk and cotton from the weavers:

- (i) Appointment of paid supervisors called Gomasthas. They also collected supplies and examined cloth quality of the weavers.
- (ii) Prevention of Company weavers from dealing with other buyers through a system of advances and loans.

OTHER IMPORTANT QUESTIONS (AS PER CCE PATTERN)

B. MULTIPLE CHOICE QUESTIONS [1 MARK]

Q.1. The word 'Orient' refers to :

- (a) All the countries outside Europe
- (b) Countries to the east of the Mediterranean, usually referring to Asia
- (c) Countries, which according to a western viewpoint are traditional, mysterious and pre-modern
- (d) Both (b) and (c)

Ans. (d)

Q.2. The picture of the "Two Magicians" shows

- (a) Aladdin from the orient who built a beautiful palace with his magic lamp
- (b) A modern mechanic who with his magic tool builds bridges, ships, towers and high-rise buildings
- (c) The difference between East and West, Aladdin represents the East and the East and the mechanic, the West and modernity
- (d) All the above

Ans. (d)



Q.3. The new merchants could not set up business in the towns in Europe, because :

- (a) the rules did not allow them to do so
- (b) there were not enough products to start business with, as guilds had monopoly
- (c) the powerful trade guilds and urban crafts made it difficult for new merchants to start business in towns and restricted their entry
- (d) the merchants wanted to do business with village people

Ans. (c)

Q.4. How can we prove that the first symbol of factory system was cotton?

- (a) Its production boomed in the late 18th century
- (b) In 1760, Britain was importing 2.5 million pounds of raw cotton for its cotton industry

- (c) By 1787, its import soared to 22 million pounds
- (d) All the above

Ans. (d)

Q.5. Who are called Staplers and Fullers?

- (a) A Fuller 'fulls' or gathers cloth by pleating
- (b) Stapler 'staples' or sorts wool according to its fibre
- (c) Both (b) and (c)
- (d) Staplers and Fullers are dyers

Ans. (c)

Q.6. Working for urban merchants was welcome for the peasants' households because

- (a) it gave a chance to countryside to compete with urban guilds
- (b) proto-industrial production supplemented their shrinking incomes from cultivation and allowed fuller use of family's labour resources
- (c) it helped them to produce better while sitting at home
- (d) none of the above

Ans. (b)

Q.7. Where and when did the earliest factories come up?

- (a) In the beginning of the 18th century in England
- (b) In the 1730s in England
- (c) In the late 18th century in Europe
- (d) None of the above

Ans. (b)

Q.8. Carding is a process :

- (a) in spinning
- (b) in weaving
- (c) in which cotton or wool fibres are prepared for spinning
- (d) in which finishing of cloth is done

Ans. (c)

Q.9. Which industry followed the cotton industry in England and why?

- (a) The wool industry, because production of wool increased in England
- (b) Iron and steel industry, because of the growth of railways from the 1840s in England and in colonies in the 1860s
- (c) Iron and steel industry, because textile industry was no longer important
- (d) Mining industry, because of loss in textile industry

Ans. (b)

Q.10. Who invented the first steam engine and who improved upon it?

- (a) James Watt produced the first steam engine and Newcomen improved it
- (b) Richard Arkwright produced the first steam engine which Newcomen improved it
- (c) James Watt improved the steam engine produced by Newcomen
- (d) None of the above

Ans. (c)

- Q.11. The typical worker in the mid-nineteenth century, according to historians, was:**
- (a) a machine operator
 - (b) traditional craftsperson and labourer
 - (c) unskilled labourers
 - (d) a technology expert worker

Ans. (b)

- Q.12. Which of the following statements is/are not true about the life of workers in the early 19th century?**

- (a) Till the mid-nineteenth century, about 10% of urban population were extremely poor
- (b) During the periods of economic slump (like the 1830s) the unemployment figures went up from 35 to 75 per cent
- (c) The wages increased throughout the 19th century and welfare of workers improved
- (d) The income of the workers depended on the period of employment and not the wage rate alone.

Ans. (c)

- Q.13. The women in the woollen industry attacked the introduction of spinning jenny because**

- (a) fear of unemployment made the women workers hostile to the introduction of new technology
- (b) the women did not know how to work the machine
- (c) the women depended on hand-spinning
- (d) all the above

Ans. (d)

- Q.14. How can we prove that the old ports like Surat and Hooghly declined with the coming of the European companies?**

- (a) Exports from these ports fell dramatically
- (b) In the last years of the 17th century, the gross value of trade that passed through Surat had been Rs 16 million. By the 1740s, it had slumped to Rs 3 million.
- (c) The credit that financed the trade dried up
- (d) The local bankers went bankrupt slowly

Ans. (b)

- Q.15. A gomastha was :**

- (a) an officer of the East India Company who looked after the textile trade
- (b) an officer of the Company who acted as a go-between the Company and Indian traders
- (c) a paid servant of the Company who supervised weavers, collected supplies and examined the quality of the cloth
- (d) none of these

Ans. (c)

- Q.16. Which of the following statements is not true about how the Company prevented weavers from dealing with other buyers?**

- (a) The Company offered their weavers the highest rates
- (b) The Company gave loans to weavers to purchase raw materials for their production
- (c) Those who took loans had to sell the cloth they produced to the Gomasthas
- (d) The weavers could not sell their product to any other trader

Ans. (a)

Q.17. In 1772, Henry Patulla, a Company official, had declared that

- (a) Indian textiles would soon lose their charm and people will not buy them
- (b) the demand for Indian textiles would never shrink as no other country produced goods of the same quality
- (c) Indian textiles could never compete with mill-made goods
- (d) none of the above

Ans. (b)

Q.18. The American Civil War caused new problems for Indian weavers. How?

- (a) Indian weavers could not get sufficient supply of raw cotton of good quality
- (b) The Americans stopped supplying raw cotton to Britain due to the Civil War and the latter turned to India, and exports from India increased raising the price of raw cotton
- (c) Indian weavers could not afford to buy raw cotton at exorbitant prices
- (d) All the above

Ans. (d)

Q.19. Weaving industry finally collapsed by the end of the 19th century. Why?

- (a) All raw materials vanished from India
- (b) Indian weavers took to other professions because of high prices of raw materials
- (c) Indian factories came up and began flooding the market with machine-made goods
- (d) The British totally monopolised the textile trade

Ans. (c)

Q.20. Which of the following causes led to the decline and collapse of weaving industry in India?

- (a) By the 1850s, export markets collapsed, local markets shrank
- (b) The cheap, machine-produced goods of Manchester glutted the Indian market
- (c) The civil war in America stopped cotton exports to Britain which now imported raw cotton from India and Indian weavers were deprived of raw cotton which sold at exorbitant price in India
- (d) Both (b) and (c)

Ans. (d)

Q.21. The export of Indian yarn to China declined in 1906. Why?

- (a) The Chinese started producing better yarn themselves
- (b) Indians started using their own yarn at home
- (c) Produce from the Chinese and Japanese mills flooded the Chinese market
- (d) Indians started making cloth instead of exporting yarn

Ans. (c)

Q.22. A fly shuttle is:

- (a) a mechanical device which increased production in factories, allowing weavers to operate large looms for wider cloths
- (b) a mechanical device, used by weavers, moved by means of ropes and pullies
- (c) the device which places horizontal threads (the weft) into the vertical threads (the warp)
- (d) both (b) and (c)

Ans. (d)

Q.23. What items did Indian factories supply during the First World War?

- (a) guns and other ammunition
- (b) jute bags, cloth for army uniforms, tents, leather boots, horse and mule saddles, besides other things
- (c) medicines for hospitals
- (d) all the above

Ans. (b)

Q.24. The main interests of the European Managing Agencies, which dominated industrial production in India, were :

- (a) tea and coffee plantations, acquiring land at cheap rates
- (b) investing in mining, indigo and jute required for export trade
- (c) both (a) and (b)
- (d) products which were needed in India

Ans. (c)

Q.25. Which of the following statements is not true about the effect of the First World War on industrialisation in India?

- (a) Indian mills had to double their production, during the war to supply the war needs
- (b) New factories were set up, old ones ran multiple shifts
- (c) New workers were employed, made to work longer hours
- (d) Manchester exports to India doubled during the war years

Ans. (d)

Q.26. Why are advertisements needed to create new consumers?

- (a) To make the consumers aware of products
- (b) To make new products appear desirable and necessary
- (c) To shape the minds of people, create new needs, a new culture and expand markets
- (d) all of these

Ans. (d)

Q.27. Who among the following produced a popular music book that had a picture on the cover page announcing the Dawn of the Century? [2010, 2011 (T-1)]

- (a) New Comer
- (b) James Watt
- (c) E. T. Paul
- (d) Mathew Boulton

Ans. (c)

Q.28. Which among the following is associated with Gomasthas? [2010, 2011 (T-1)]

- (a) Trader
- (b) Businessman
- (c) Unpaid Servant
- (d) Supervisor appointed by the company

Ans. (d)

Q.29. Which one of the following factories was considered as a symbol of new era in England in the late eighteenth century? [2010 (T-1)]

- (a) Iron and steel
- (b) Metal
- (c) Jute
- (d) Cotton

Ans. (d)

Q.30. How does advertisement help us to create new consumer? [2010 (T-1)]

- (a) It makes products appear desirable and necessary
- (b) It tries to shape the minds of people and create new needs
- (c) It helps in expanding the markets for products
- (d) All the above

Ans. (d)

Q.31. Name the person who created the cotton mill in England? [2010, 2011 (T-1)]

- (a) Richard Arkwright (b) James Watt (c) Mathew Boulton (d) Newcomen

Ans. (a)

Q.32 Who devised the Spinning Jenny? [2010 (T-1)]

- (a) Richard Arkwright (b) James Watt
- (c) James Hargreaves (d) Samuel Luke

Ans. (c)

Q.33. The introduction of which new technology in England angered women? [2010 (T-1)]

- (a) The spinning jenny (b) The underground railway
- (c) The steam engine (d) None of these

Ans. (a)

Q.34. Which pre-colonial port connected India to the Gulf countries and the Red Sea ports? [2010 (T-1)]

- (a) Bombay (b) Hooghly (c) Surat (d) Machhalipatanam

Ans. (c)

Q.35. Where in India was the first cotton mill set up? [2010 (T-1)]

- (a) Kanpur (b) Bombay (c) Ahmedabad (d) Madras

Ans. (b)

Q.36. Which one of the following Indian ports lost its importance during colonial rule? [2010, 2011 (T-1)]

- (a) Bombay (b) Calcutta (c) Surat (d) Madras

Ans. (c)

Q.37. Which of the following was not a European Managing Agency dominating industrial production in India? [2010 (T-1)]

- (a) Andrew Yule (b) Bird Heiglers and Co.
- (c) Jardine Skinner and Co. (d) Elgin Mills

Ans. (d)

Q.38. By which of the following phenomena was the pattern of industrial change in India conditioned? [2010 (T-1)]

- (a) Colonial rule (b) Weakness of Mughal rule
- (c) Poverty of the countryside
- (d) Struggle between the European powers to control India

Ans. (a)

Q.39. Which one of the following was the job of the Gomastha? [2010, 2011 (T-1)]

- (a) Supervise weavers (b) Collect supplies
- (c) Examine the quality of the cloth (d) All the above

Ans. (d)

Q.40. The person who got people from villages, ensured them jobs, helped them settle in cities and provided them money in times of need was known as : [2010, 2011 (T-1)]

- (a) Stapler (b) Fuller (c) Gomastha (d) Jobber

Ans. (d)

Q.41. Production processes involving carding, twisting, rolling and stapling are associated with : [2010 (T-1)]

- (a) Textile Industry (b) Railway industry (c) Shipping industry (d) Glass industry

Ans. (a)

Q.42. Which one of the following problems was not faced by cotton weavers in India? [2010, 2011 (T-1)]

- (a) Export market had collapsed (b) They did not have good quality cotton
(c) Imported goods were cheap
(d) There were frequent strikes in Indian industries

Ans. (d)

Q.43. In Victorian Britain, the aristocrats and bourgeoisie preferred hand-made goods as : [2010 (T-1)]

- (a) they were cheap (b) they could be obtained easily
(c) they were made of better material (d) they symbolised refinement and class

Ans. (d)

Q.44. Who improved the 'Steam Engine' produced by Newcomen? [2010, 2011 (T-1)]

- (a) Marcopolo (b) James Watt (c) Hargreaves (d) Richard Arkwright

Ans. (b)

Q.45. Who was Dwarkanath Tagore? [2010 (T-1)]

- (a) A social reformer (b) Musician (c) Industrialist (d) Painter

Ans. (c)

Q.46. Which were the most dynamic industries in Britain during the 19th century? [2010 (T-1)]

- (a) Cotton and metal (b) Metal and sugar (c) Ship and cotton (d) Cotton and sugar

Ans. (a)

Q.47. Where was the first Indian jute mill set up? [2010, 2011 (T-1)]

- (a) Bengal (b) Bombay (c) Madras (d) Bihar

Ans. (a)

Q.48. Which of the following was not a problem of Indian weavers at the early 19th century? [2010 (T-1)]

- (a) Shortage of raw material (b) Clashes with Gomasthas
(c) Collapse of local and foreign market (d) Setting up of new factories

Ans. (b)

Q.49. When did the exports of British cotton goods increased dramatically? [2010, 2011 (T-1)]

- (a) in the early 17th century (b) in the early 18th century

(c) in the early 19th century (d) in the early 20th century

Ans. (c)

Q.50. Where was the first cotton mill set up in India? [2010, 2011 (T-1)]

(a) Ahmedabad (b) Kanpur (c) Bombay (d) Madras

Ans. (c)

Q.51. Which of the following mechanical devices used for weaving, with ropes and pullies, which helped to weave wide pieces of cloth? [2010 (T-1)]

(a) Handloom (b) Powerloom (c) Fly Shuttle (d) Spinning Jenny

Ans. (c)

Q.52. In 1911, 67 percent of the large industries were located in which one of the following places in India? [2010, 2011 (T-1)]

(a) Bengal and Bombay (b) Surat and Ahmedabad
(c) Delhi and Bombay (d) Patna and Lucknow

Ans. (a)

Q.53. Who among the following set up the first Indian jute mill in Calcutta in 1917?

[2010, 2011 (T-1)]

(a) Seth Hukumchand (b) G.D. Birla
(c) Jamsedjee Nusserwanjee Tata (d) None of the above

Ans. (a)

Q.54. What was "Spinning Jenny"?

[2010, 2011 (T-1)]

(a) A machine (b) A person (c) An industry (d) None of the above

Ans. (a)

Q.55. Who established six joint stock companies in India during 1830-40?

[2010 (T-1)]

(a) Jamsedji Nusserwanjee Tata (b) Dinshaw Petit
(c) Seth Hukumchand (d) Dwarkanath Tagore

Ans. (d)

Q.56. Which one of the following ports decayed by the end of the eighteenth century?

[2010 (T-1)]

(a) Calcutta (b) Goa (c) Surat (d) None of the above

Ans. (c)

Q.57. In which one of the following years did the first cotton mill in Bombay (Mumbai) come up? [2010, 2011 (T-1)]

(a) 1854 (b) 1855 (c) 1862 (d) 1874

Ans. (a)

Q.58. Who among the following was usually employed by the industrialists to get new recruits?

[2010 (T-1)]

(a) Gomastha (b) Policeman (c) Sepoy (d) Jobber

Ans. (d)

Q.59. In which one of the following years did the earliest factories in England come up?

[2010 (T-1)]

(a) 1710 (b) 1720 (c) 1730 (d) 1740

Ans. (c)

Q.60. Whom did the British government appoint to supervise weavers, collect supplies and examine the quality of cloth? [2010, 2011 (T-1)]

- (a) Jobber (b) Sepoy (c) Policeman (d) Gomastha

Ans. (d)

Q.61. Which among the following cities had trade links with South Asian ports? [2010 (T-1)]

- (a) Masulipatam and Hoogly (b) Masulipatam and Surat
(c) Surat and Bombay (Mumbai) (d) None of the above

Ans. (a)

Q.62. Which one of the following European managing agencies did not control Indian industries? [2010, 2011 (T-1)]

- (a) Bird Heiglers and Company (b) Andrew Yule
(c) Indian Industrial and Commerce Congress (d) Jardine Skinner and Company

Ans. (c)

Q.63. Which of the following helped the spread of handloom cloth production? [2011 (T-1)]

- (a) Import duties (b) Government regulations
(c) Technological changes (d) Imposition of export duties

Ans. (c)

Q.64. Surat and Hooghly were replaced with : [2011 (T-1)]

- (a) Bombay and Orissa (b) Bombay and Calcutta
(c) Masulipatam and Calcutta (d) None of the above

Ans. (b)

Q.65. Who produced the Steam Engine? [2011 (T-1)]

- (a) James Watt (b) James Mill (c) Newcomen (d) Crompton

Ans. (c)

Q.66. Industrial Revolution refers to : [2011 (T-1)]

- (a) Mass production by factories (b) Collection of raw material
(c) Process of raw material (d) None of these

Ans. (a)

Q.67. Which of the following were the pre-colonial ports of India? [2011 (T-1)]

- (a) Surat and Masulipatam (b) Madras and Hoogly
(c) Madras and Bombay (d) Bombay and Hoogly

Ans. (a)

Q.68. Which of the following was the main function of jobber, employed by the industrialists? [2011 (T-1)]

- (a) To collect money (b) To set up industries
(c) To get a new recruit (d) To supply raw material

Ans. (c)

C. SHORT ANSWER TYPE QUESTIONS [3 MARKS]

Q.1. What factors were responsible for an increasing demand of goods? Give an example.

Ans. Expansion of trade and acquisition of colonies in the seventeenth and eighteenth centuries led to increasing demand of goods. For example, acquisition of colonies was an important activity undertaken by Europeans in the eighteenth and nineteenth centuries. When colonies were established, they had more resources and markets for their products and volume of trade increased.

Q.2. What were the first symbols of industrialisation?

Ans. Cotton and metal (iron and steel) production were the first symbols of industrialisation. Factories in England emerged as early as the 1730s and their number increased steadily. It was due to changes in the production process of carding (process of preparing cotton or wool fibres prior to spinning), twisting, spinning and rolling.

Q.3. Write a short note on trade guilds.

Ans. Trade guilds were associations of producers that trained craftpersons and artists. They exercised control over production through regulated competition and prices. They also restricted the entry of new people into the trade. Most of them were granted the right to produce specific products by their rulers.

Q.4. What other sectors of production benefitted from ordinary inventions?

Ans. Cotton and metal were steam-powered industries. Some small and ordinary inventions contributed in many non-mechanised sectors like food processing, building, pottery, glass work, tanning, furniture-making and production of implements.

Q.5. What is the most recent views regarding industrial revolution of the eighteenth and mid-nineteenth centuries?

Ans. Modern historians have now recognised the important role of the traditional craftpersons and labourers of the mid-nineteenth century in recent years. Technological changes were slow and expensive. They were not as effective as claimed because merchants and manufacturers were cautious in using them for their cost and maintenance.

Q.6. Write a short note on the condition of a labour's life in Victorian Britain.

Ans. Victorian Britain was a period when there was no shortage of labour. Poor peasants and vagrants moved to the cities in large numbers in search of work. Their wages were thus low and they were exploited by the producers.

Q.7. Explain why machines did not necessarily affect employment of labours.

Ans. Machines required large capital investments. Introduction of machines did not necessarily affect the traditional process of production for a long time. The need for machines varied according to available labour. Where there was plenty of labour, wages were low.

Q.8. What were the limits of machine-made products?

Ans. Machines were limited by its inability to produce variety of products. Machines produced only uniform, standardised products meant for mass markets. However, demands in European markets were mainly for intricate and specific designs.

Q.9. Who invented the Spinning Jenny? How did it work?

Ans. Spinning jenny was devised by James Hargreaves in 1764. It speeded up the spinning process

and reduced the labour demand. One single turning of the wheel could set in motion a number of spindles and spin several threads of yarn.

Q.10. What is the monopoly of trade?

Ans. Monopoly of trade is the practice in which a country develops a system of management and control, eliminating competition, control costs, ensure regulated supply of products.

For example, British colonisers used to monopolise products such as silk and cotton in India.

Q.11. How did the Indian weavers react to the monopoly of cotton production?

Ans. The increasing dependence on income generated from the sale of raw cotton and their loss of independence for sale and bargaining power led many weavers to take extreme action.

Desertion and migration by farmers of Carnatic and Bengal weavers were common. Some joined the traders in revolting against officials.

Q.12. Discuss the impact of Indian national movement on Indian entrepreneurs. (2010)

Ans. During the period of national movement in the early twentieth century, Swadeshi activists mobilised people not to use foreign goods. They boycotted and burned foreign goods which affected their sale. Indigenous industrialists organised themselves to demand tariff protection and grants from the Government which led to the establishment of certain regulations.

Indian industries benefitted, especially during the war time, as it was able to diversify the products into war goods, steel and iron, etc.

PREVIOUS YEARS' QUESTIONS

Q.13. Give one negative impact of the development of cotton textile industry in England on Indian weavers. [2010]

Ans. They could not get enough supply of raw cotton of good quality. The American Civil War stopped the supply of raw cotton to England and the British forced Indian weavers to buy raw cotton at exorbitant prices.

Q.14. Explain the miserable conditions of Indian weavers during the East India Company's regime in the eighteenth century. [2008, 2010]

Ans. Once the East India Company established political power, it started asserting monopoly right to trade. It proceeded to develop a system which gave it control to eliminate all competition, control costs and ensure regular supply of cotton and silk goods. It took the following steps. First, it eliminated the existing traders and brokers and established direct control over the weaver. It appointed a special officer called the 'gomastha' to supervise weavers, collect supplies and examine the quality of the clothes.

Second, it prevented the Company weavers from dealing with other buyers. They advanced loans to weavers to purchase the raw materials, after placing an order. The ones who took loans had to give their cloth to the gomastha. They could not sell it to any other trader.

Weavers took advance, hoping to earn more. Some weavers even leased out their land to devote all time to weaving. The entire family became engaged in weaving. But soon there were fights between the weavers and the gomasthas. The latter used to march into villages with sepoy and often beat up the weavers for delays in supply.

In many places like Carnatic and Bengal, weavers deserted the villages and had to migrate to other villages. In many places they revolted against the Company and its officials. Weavers

began refusing to accept loans after some time, closed down their workshops and became agricultural labour.

Q.15. Write a short note on the role of advertisement during the British rule. [2008, 2010]

Ans. Manchester industrialists used their labels on clothes sold in India with bold letters, “Made in Manchester” to inspire confidence amongst the buyers. Images were sometimes used instead of labels. Common images of the time were images of Gods and Goddesses, probably to give the product a divine approval. Sometimes, figures of emperors and nawabs also adorned calendars, which were an effective advertising tool as they could be hung and used by everyone and everywhere.

OR

How did the British manufacturers attempt to take over the Indian market with the help of advertisements? Explain with three examples. [2008, 2010]

OR

Explain four ways that helped the British to take over the Indian market with the help of advertisements.

- Ans.** (i) When Manchester industrialists began selling cloth in India, they put labels on the cloth bundles. The label served two purposes. One was to make the place of manufacture and the name of the company familiar to the people. The second was that the label was also a mark of quality. When the buyers saw “Made in Manchester” written in bold on the label, they felt confident about buying the cloth.
- (ii) Besides words and texts, they also carried images. Beautifully illustrated images of Indian Gods and Goddesses appeared on these labels. For example, images of Kartika, Laxmi, Saraswati were shown on imported cloth label.
- (iii) Historic figures like those of Maharaja Ranjit Singh were used to create respect for the product. The image, the labels, the historic figures were intended to make the manufacture from a foreign land appear somewhat familiar to Indian people.
- (iv) Manufacturers printed calendars to popularise their products calendars could be used even by people who could not read. Advertisement could be seen day after day, throughout the year, when hung on the walls.

Q.16. Explain with examples how an average worker in mid-nineteenth century was not a machine operator but a traditional craftsperson and labour. [2008, 2010]

Ans. The most dynamic industries in Britain were cotton and metals. But these industries did not displace traditional industries. Even at the end of 19th century only 20% of the total workforce was employed in technologically advanced industries. Ordinary and small innovations were the basis of growth in many non-machinised sectors such as food processing, buildings, pottery, glasswork, tanning etc. Again, technological changes occurred slowly. New machines were expensive and broke down often. Repair was costly. Take the case of steam engine. James Watt improved the steam engine produced by new comer in 1781. But for years there were no buyers. There were only 321 steam engines in England at the beginning of the 19th century. Of these 50 were in cotton industry, nine in wool and rest in mining. Steam engines were used much later so a typical worker in the mid-19th century was not a machine operator but a traditional craftsperson.

Q.17. Explain any three problems faced by the Indian weavers by the turn of the 19th century. [2009, 2010, 2011 (T-1)]

Ans. The three problems faced by weavers by the turn of the 19th century were :

- (i) Decline in export market : By 1860s insufficient supply of raw cotton of good quality affected the Indian weavers. Due to the American civil war, the supply of raw cotton from USA had stopped. Britain turned to India for new cotton export. This resulted in price rise and the Indian weavers suffered. In the beginning of the 19th century, there was a sharp decline in Indian export of cotton piece exports. In 1811-12, 33% of exports were made in price goods. In 1850-51, it was no more than 3%.
- (ii) The British started dumping mill-made and machine-made British goods in India. British exports to India for textile goods increased from 31% to over 50% in the 1870s. The local markets collapsed as they were glutted with Manchester imports. Machine-made goods were sold at lower prices and Indian weavers could not compete with them.
- (iii) Another problem cropped up for weavers. At the end of the 19th century, India started producing cotton textiles in factories and punished the weavers for delays in supply, often beating and flogging them. The weavers lost the power to bargain for prices and sell to different buyers. The Company paid them a miserably low price. The loans tied them to the Company. It led to deserted villages and migration to other cities.

Q.18. Explain the impact of First World War on Indian industries. [2010]

OR

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

Ans. Till the First World War, industrial growth in India was slow. The war created a dramatically new situation. Manchester imports into India declined due to the war. The British factories became busy with producing things needed for the army. Indian mills now suddenly had a large market to supply. The long war made the Indian factories supply them with jute bags, cloth for army uniforms, tents and leather boots, horse and mule saddles, and a host of other items. Many workers were employed for longer hours.

After the war Manchester goods lost their hold on the Indian markets. British economy collapsed as it could not compete with the USA, Japan, and its European rivals. The Indian industrialists captured the local market. Small scale industries prospered.

Q.19. Explain any three major problems faced by new European merchants in setting up their industries in towns before the Industrial Revolution. [2010]

Ans. New European merchants faced problems in setting up their industries in towns for three major reasons :

- (i) The urban crafts and trade guilds were powerful. These were associations of producers that trained craftspeople and maintained control over production.
- (ii) They regulated competition and prices and restricted the entry of new people into the trade.
- (iii) Rulers granted different guilds monopoly right to produce and trade in specific products.

Q.20. How had a series of inventions in the eighteenth century increased the efficiency of each step of the production process in cotton textile industry? Explain. [2010]

Ans. A series of inventions in the 18th century increased the efficiency of each step of the production process in cotton textile industry.

- (i) Each step means carding, twisting, spinning and rolling. They enhanced the output per worker, enabling each worker to produce more and produce stronger threads and yarn.
- (ii) Richard Arkwright created the cotton mill. Before this, cloth production was carried out within village households. Now costly machines could be set up in the mill and all the mill

processes were completed under one roof.

- (iii) Spinning jenny devised by James Hargreaves in 1764 speeded up the spinning process and reduced labour demand. By turning one single wheel, a worker could set in motion a number of spindles and spin several threads at a time.
- (iv) The steam engine, invented by James Watt in 1781, was used in cotton mills.
- (v) Factories came up in large numbers and by 1840, cotton textile became the leading sector in industrialisation. The expansion of railways also helped in production of textile goods.

Q.21. What is meant by proto-industrialisation? Why was it successful in the countryside in England in the 17th century? [2010, 2011 (T-1)]

Ans. Proto-industrialisation refers to first or early form of industrialisation. Even before the factories came up in England and Europe, there was large-scale industrial production for an international market, not based on factories. This phase of industrialisation is referred to as proto-industrialisation.

Guilds were associations of producers that trained crafts people, maintained control over production, regulated competition and prices and restricted the entry of new people into the trade.

Q.22. 'Technological changes occurred slowly in Britain.' Give three reasons for this. [2010, 2011 (T-1)]

Ans. Technological changes occurred slowly because :

- (i) New technology was expensive and merchants and industrialists were cautious about using it.
- (ii) They did not spread dramatically across the industrial landscape.
- (iii) The machines often broke down and repair was costly.
- (iv) They were not as effective as their inventors and manufacturers claimed.

For example : For years there were no buyers for the steam engine improved by James Watt and they were not used in the industry till much later in the 18th century. So even the most powerful technology that enhanced productivity of labour manifold was slow to be accepted by industrialists.

Q.23. What led to expansion in handloom craft production between 1900 and 1940? [2010 (T-1)]

Ans. In the 20th century, handloom craft actually expanded, handloom cloth production expanded steadily almost tripling between 1900 and 1940.

- (i) This was partly due to technological changes. Handicrafts people adopted new technology which improved production without pushing up the costs excessively. Weavers started using a **fly shuttle** which speeded up production and reduced labour demand. By 1941, over 35% of handlooms in India were fitted with fly shuttles. In Travancore, Madras, Mysore, Cochin and Bengal the proportion was 70 to 80%. There were several other innovations that helped weavers.
- (ii) The demand for finer varieties bought by the well-to-do was always stable, unlike the coarse variety. Famines did not affect the sale of Banarasi or Baluchari saris. Mills could not produce saris with woven borders, or the famous lungis and handkerchiefs of Madras. Handlooms cloth production in the 20th century almost tripled between 1900-1940.

Q.24. Vasant Parkar, who was once a mill worker in Bombay, said : [2010 (T-1)]

'The workers would pay the jobbers money to get their sons work in mill The mill worker was closely associated with his village, physically and emotionally. He would go home to cut the harvest

and for sowing. The Konkani would go home to cut the paddy and Gahti, the sugarcane. It was accepted practice for which the mills granted leave.'

- (i) Why do workers pay a jobber?
- (ii) In what ways did the mill workers remain associated with the village?
- (iii) Why did mill workers go to the village?

- Ans.**
- (i) Workers paid a jobber because he got jobs for them, helped them to settle in the city and provided them money in times of crisis. For these favours he was paid.
 - (ii) The workers in the mill came from the villages or neighbouring districts. For example, 50% workers in the Bombay cotton industries in 1911 came from neighbouring districts of Ratnagiri, from mills of Kanpur, from surrounding districts of Kanpur.
 - (iii) Most often mill workers moved between the villages and the city, returning to their village homes during harvests and festivals.

Q.25. Explain any three functions of a jobber. [2010, 2011 (T-1)]

Ans. The three functions of a jobber were :

1. To recruit new people from his village and ensure them jobs.
2. To help them to settle in the cities.
3. To provide money to the workers in time of crisis.

Q.26. Who were the Gomasthas? Why did the weavers and Gomasthas clash?

[2010, 2011 (T-1)]

Ans. Gomasthas were paid servants of the East India Company. Their job was to supervise weavers, collect supplies, and examine the quality of cloth.

The weavers clashed with the Gomasthas because they were outsiders with no long-term link with the villages. They acted arrogantly, marched into villages with sepoy and peons and punished weavers for delays. They often beat and flogged the workers.

Q.27. Mention the name of three Indian entrepreneurs and their individual contribution during the nineteenth century. [2010 (T-1)]

Ans. The three Indian industrialists of the 19th century were :

- (i) Dwarkanath Tagore,
- (ii) Dinshaw Petit & Nusserwanjee Tata
- (iii) Seth Hukum Chand

Dwarkanath Tagore set up six joint stock companies in the 1830s and 1840s.

In Bombay, Dinshaw Petit and Nusserwanjee Tata built huge industrial empires in India.

Seth Hukumchand, a Marwari businessman set up the first jute mill in Calcutta in 1917.

Q.28. Why were Victorian industrialists not interested to introduce machines in England? Give any four reasons. [2010 (T-1)]

OR

Why were some industrialists in the 19th century Europe prefer hand labour over machines. 2011 (T-1)]

Ans. The four reasons are :

- (i) There was no shortage of human labour in the Victorian England. When there is plenty of labour, wages are low, the industrialists did not want to introduce machines that got rid of human labour, and required large capital investment.
- (ii) In many industries demand for labour was seasonal (for example, gas works and breweries) So more workers were needed in peak season. So, industrialists usually

- preferred hand labour, employing workers for the season only.
- (iii) A range of products could be produced only by hand labour. Machines could produce standardised goods for a mass market. The demand in the market was for goods with intricate designs and specific shapes (for example, hammers). These required human skills, not mechanical technology.
 - (iv) In Victorian Britain, the upper classes the aristocrats and the bourgeoisie preferred things produced by hand. Handmade products symbolised class and refinement. They were better finished and carefully designed. Machine made goods were for exports to colonies only.

Q.29. What role did the Indian merchants play in the growth of textiles industries before 1750? Explain any three points. [2010 (T-1)]

Ans. Before 1750, Indian merchants were involved in a network of export trade. Silk and cotton goods from India dominated the international market in textiles. Surat and Gujarat Coast connected India to Gulf and Red Sea ports. Masaulipatam on the Coromondal Coast and Hooghly in Bengal had trade links with Southeast Asian ports.

Indian merchants managed financial production, carrying goods and supplying exporters. They gave advances to weavers, procured the woven cloth from weaving villages and carried supplies to the ports. At the port, the big shippers and export merchants had brokers who negotiated the price and bought good from the supply merchants operating inland.

Q.30. After industrial development in England, what steps did the British government take to prevent competition with the Indian textiles? [2010 (T-1)]

Ans. The British Government prevented competition with Indian textiles by :

- They imposed import duties on textile goods so that Manchester goods could sell in Britain without facing any competition from outside.
- The industrialists persuaded East India Company to sell British goods in Indian markets, and export of British cotton goods increased.
- At the end of 18th century there was virtually no import of cotton goods from India. The value of cotton goods constituted 31% in 1850 but by 1870s the figure was over 50%.

Q.31. How did a series of changes affect the pattern of industrialisation by the first decade of the 20th century? Explain any three. [2010 (T-1)]

Ans. When the Swadeshi Movement, the nationalists mobilised people to boycott foreign cloth

- (i) Industrial groups organised themselves to protect their collective interests. They pressurised the government to increase tariff protection and grant other concessions
- (ii) From 1900, export of Indian yarn to China declined, so industrialists in India began shifting from yarn to cloth production.
- (iii) Cotton piece goods production doubled in India between 1900 and 1912.

Q.32. Mention any three restrictions imposed by the British government upon the Indian merchants in the 19th century? [2010, 2011 (T-1)]

Ans. The British Government in the 19th century tightened their control over Indian merchants.

- (i) They were barred from trading with Europe in manufactured goods.
- (ii) They had to export mostly raw materials and food grains — raw cotton, opium, wheat and indigo — required by the British. They were also edged out of the shipping industries.
- (iii) European Managing Agencies, in fact, controlled a large sector of Indian business : three of the biggest ones were, Bird Heighlers Co, Andrew Yule, and Jardine Skinr & Co. In most cases Indian financiers provided the capital while the European Agencies made all

investment and business decision. Indian businessmen were not allowed to join European merchant, industrialists.

Q.33. Why did Indian industrialists begin to shift from yarn to cloth production? Give three reasons. [2010 (T-1)]

Ans. Indian industrialists began to shift from yarn to cloth production for the following reasons:

- (i) The Swadeshi Movement mobilised people to boycott foreign cloth. This encouraged Indian industrialists to produce cloth, as Indian mills had a vast home market to supply, and Manchester imports into India declined.
- (ii) Export of Indian yarn to China declined from 1906 as produce from Chinese and Japanese mills flooded the Chinese market. So Indian industrialists began to shift from yarn to cloth production.
- (iii) After the First World War, Manchester could not capture its position in Indian markets. This enabled the local industrialists in the colonies to capture the home market, and consolidate their position.

Q.34. Why did the East India Company appoint Gomasthas in India? [2011 (T-1)]

Ans. The company tried to eliminate the existing traders and brokers connected with the cloth trade, and establish a more direct control over the weaver. It appointed a paid servant called the **gomastha** to supervise weavers, collect supplies, and examine the quality of cloth.

Q.35. Why there was no shortage of human labour in Victorian Britain in the mid of nineteenth century? [2011 (T-1)]

Ans. Poor peasants and vagrants moved to the cities in large numbers in search of jobs, waiting for work. Industrialists did not want to introduce machines that got rid of human labour and required large capital investment. A range of products could be produced only with hand labour. For instance, in mid-nineteenth-century Britain, 500 varieties of hammers were produced and 45 kinds of axes. These required human skill.

Moreover, in Victorian Britain, the upper classes preferred things produced by hand.

Q.36. Why did women workers in Britain attack the Spinning Jenny? Give any three reasons. [2011 (T-1)]

Ans. (i) Spinning Jenny speeded up the spinning process and reduced labour demand.
(ii) The fear of unemployment made workers hostile to the introduction of new technology.
(iii) When the Spinning Jenny was introduced in the woollen industry, women who survived on hand spinning lost their job and began attacking the new machines.

Q.37. Why do historians agree that the typical worker in the mid-nineteenth century was not a machine operator but the traditional craftsman and labourer? Explain. [2011 (T-1)]

Ans. (i) The industrialists were very hesitant to introduce new machines for a variety of reasons.
(ii) Due to abundance of human labour, industrialists had no problem of labour shortage or high wage costs. Machines required large capital investment.
(iii) Goods with intricate designs and specific shapes (like hammer, axes, etc.) required human skill, not mechanical technology.
(iv) The upper classes preferred things produced by hand.

D. LONG ANSWER TYPE QUESTIONS [4 MARKS]

Q.1. Give two examples of modern development associated with progress but which also led to problems.

Ans. (i) **Environment** : The phenomenon called the global warming is a direct product of excessive emission of chlorofluorocarbons and other harmful gases, including burning of fossil fuels (coal, petrol, shale oil) which supply nearly 90% of all the energy used by industrially developed nations. This will cause large-scale natural destruction by rising oceans and pollution.

(ii) **Nuclear weapons and diseases** : Nuclear weapons are mankind's worst invention in the name of progress, as witnessed in the atomic bombing of Hiroshima and Nagasaki in Japan during the Second World War. Its after-effects are even worse with long-term consequences of radiation and diseases.

Q.2. Explain why the seventeenth century merchants from towns in Europe began employing peasants and artisans within the village.

Ans. Merchants preferred employing peasants and artisans within the village because it was difficult to open new businesses in towns and cities where the guilds were very much organised. They restricted new merchants and regulated their competition. Therefore, they preferred the countryside to set up new businesses. The relationship between the new merchants and farmers were closer even though they lived in different environments.

Q.3. Describe the nexus of merchants and cotton textile producers in proto-industry.

Ans. In the proto-industrial stage, cotton was produced in the following ways:

- (i) Merchant clothier bought wool from stapler, the person who sorted wool according to its fibres.
- (ii) Then he took the wool to spinners to produce spun yarns.
- (iii) Yarn (threads) were finally given to the weavers for weaving and the fullers who gathered cloths by pleating and finally sent to dyers for colouring.

As a result, a close relationship between town and countryside developed in which a network of commercial exchange existed between merchants and farmers.

Q.4. Give reasons for the increase in production of cotton textile.

Ans. Reasons for increase in cotton textiles were :

- (i) Inventions of eighteenth century, e.g. cotton mill by Richard Arkwright.
- (ii) Enhanced output per worker by machines like cotton mills.
- (iii) Quality products with stronger threads, etc.
- (iv) Maintenance of Mills made easier if located in one place.
- (v) Efficient management due to regulations.

Q.5. What do you understand by the term "Industrial Revolution"?

Ans. Industrial Revolution is the period in history when production process was changed from manual to mechanised one due to many technological inventions and building of infrastructure. It is said to have begun in England and spread to other European nations in different times and degrees. The invention of cotton mill or factory system, spinning jenny, steam engine, telegraphs and railways, etc, brought Industrial Revolution in Europe. It spread to other parts of the world much later.

investment and business decision. Indian businessmen were not allowed to join European merchant, industrialists.

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Ans. Indian industrialists began to shift from yarn to cloth production for the following reasons:

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- (ii) Export of Indian yarn to China declined from 1906 as produce from Chinese and Japanese mills flooded the Chinese market. So Indian industrialists began to shift from yarn to cloth production.
- (iii) After the First World War, Manchester could not capture its position in Indian markets. This enabled the local industrialists in the colonies to capture the home market, and consolidate their position.

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Moreover, in Victorian Britain, the upper classes preferred things produced by hand.

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Q.37. Why do historians agree that the typical worker in the mid-nineteenth century was not a machine operator but the traditional craftsman and labourer? Explain. [2011 (T-1)]

Ans. (i) The industrialists were very hesitant to introduce new machines for a variety of reasons.
(ii) Due to abundance of human labour, industrialists had no problem of labour shortage or high wage costs. Machines required large capital investment.
(iii) Goods with intricate designs and specific shapes (like hammer, axes, etc.) required human skill, not mechanical technology.
(iv) The upper classes preferred things produced by hand.

Ans. The First World War changed the British fortune. Their mills were mostly used for war production and Indian mills started production for home market too. Indian factories started producing and supplying war goods such as jute bags, uniforms, leather boots, horse and mule saddles and other such items.

Effects:

- (i) New factories were set up while old ones ran multiple shifts.
- (ii) Many new workers were employed and made to work long hours.
- (iii) The war created an industrial boom in India.
- (iv) After the war, Britain lost her economic predominance and could not compete with the new technologies of Germany and Japan.
- (v) Local industrialists also consolidated their position.

Q.11. Discuss the changes brought by the age of industries in India giving appropriate examples.

Ans. The age of industries brought major technological changes, growth of factories and the making of new industrial labour forces.

Indian industries grew out of the necessities and as a consequence of the colonial economy. For example, Europeans who invested on cash crops (tea, jute, cotton) and minerals like coal, copper, etc, needed railways. Therefore, steam-run trains were introduced connecting different parts of India. Then, telegraphs were also introduced for communication and security reasons. During the war time, India benefitted by getting some concessions and protection from the government. The industries also diversified in their products especially due to war needs.

PREVIOUS YEARS' QUESTIONS

Q.12. Explain the main features of proto-industrialisation. [2010]

OR

Throw light on production during the proto-industrialisation phase in Europe in the 17th and 18th centuries with an example [2011 (T-1)]

OR

Enumerate the features of proto-industrialisation. [2011 (T-1)]

OR

How did the poor peasants and artisans benefit during the proto-industrialisation phase? [2011 (T-1)]

Ans. Proto-industrialisation refers to a phase of industrialisation which was not based on factories. Even before factories began to appear, there was large-scale industrial production for international market.

- (i) In the 17th and 18th centuries merchants in Europe began to move to the countryside. They gave money to peasants and artisans to produce for an international market. The demands of goods had increased due to colonisation and the resultant expansion of trade. Merchants could not increase production in towns due to the monopoly and power of the crafts and trade guilds. They had the monopoly to produce certain goods and did not allow the entry of new competitors. The guilds were associations of producers that trained crafts-people, maintained control over production, and regulated prices.
- (ii) The peasants and farmers started working for the merchants. At this time open fields were

disappearing and the poor farmers were looking to new avenues of livelihood. Merchants offered advances to produce goods to them which the peasants eagerly accepted. They could stay in the countryside and continue to cultivate their small lands. Proto-industrialisation added to their shrinking income.

- (iii) The proto-industrial system became a network of commercial exchanges. A merchant clothier purchased wool from a wool stapler, carried it to the spinners, weavers took up the later stages of weaving, and later fullers and dyers stepped in. The finishing of the cloth was done in London before the export merchant sold it to the international market. At every stage of production 20 to 25 workers were employed by each merchant, with each clothier thus controlling hundreds of workers.

Q.13. Describe the peculiarities of Indian industrial growth during the First World War. [2010]

- Ans.**
- Before the First World War industrial growth was slow.
 - War created a different situation.
 - British occupation with the war, Manchester imports into India declined.
 - Indian mills had a vast market to supply.
 - Indian factories supplied jute bags, cloth for army uniforms, tents and leather boots, and host of other items.
 - New factories were set up and old ones started working multiple shifts.
 - Many new workers employed, worked for longer hours.
 - Boom in industrial production; India also produced war goods.
 - Britain failed to recapture its former economic power.
 - Within the colonies, that is the Indian industrialists consolidated their position, captured the home market and took the place of foreign manufacturers.

Q.14. How did the Industrial Revolution in England affect India's economy? [2010, 2011 (T-1)]

- Ans.**
- (i) Industrial Revolution in England led to the beginning of long decline of textile exports from India. In 1811-12 cotton goods accounted for 33% of India's exports; by 1850-51 it was no more than 3 per cent.
- (ii) As industries developed in England, industrial groups forced the government to impose import duties on textile goods, so that British goods could sell in Britain without competition. They forced the Company to sell their goods eg in eg India, so as a result, by 1850 import of goods to India increased to 50% as compared to 31% earlier.
- (iii) Indian markets were glutted with machine-made Manchester goods which were cheaper and Indian weavers could not compete with them. Indian markets suffered from paucity of raw material, for which they had to pay a higher price, as Indian raw materials were bought by the British at a cheaper price.

Q.15. Give reasons why the handloom weavers in India survived the onslaught of the machine-made textiles of Manchester? [2010 (T-1)]

- Ans.** Handloom weavers in India survived the onslaught of machine-made textiles of Manchester, because of :
- (i) The technological changes. They adopted new technologies which improved production without putting up the costs.
- (ii) The use of a **fly shuttle** with a loom increased productivity per worker speeded up production and reduced labour demand. By 1941, over 35% of handlooms in India were

fitted with fly shuttles. In some regions like Travancore, Madras, Mysore, Cochin and Bengal the proportion was 70 to 80 per cent. There were several other innovations that helped weavers improve their production.

- (iii) Another reason was that the demand for finer varieties of yarn, bought by the well-to-do was stable. The coarser cloth, bought by poor, suffered in comparison when there were famines or bad harvests. The rich could buy Banarasi or Baluchari sarees even when there were famines. Mills could not produce sarees with woven borders or famous lungis of Madras, so the weavers survived. They could not be easily displaced by mill production.

Q.16. Discuss four factors responsible for the decline of the cotton textile industry in India in the mid-nineteenth century. [2010 (T-1)]

Ans. The four factors responsible for the decline of cotton textile industry in India were :

- (i) European managing agencies which dominated industrial production in India, were interested in certain kinds of products. They established tea and coffee plantations, invested in mining, indigo and jute. These products were required for export trade and not for sale in India.
- (ii) Indian businessmen set up industries in the late 19th century which avoided competition with the Manchester goods. The Manchester goods were cheaper and mill-made.
- (iii) The British disallowed Indian merchants to trade with Europe in manufactured goods. They had to export raw materials and food grains — raw cotton, opium, wheat and indigo.
- (iv) The British monopolised and controlled a large sector of Indian industries. Their agencies mobilised capital, set up joint stock companies and managed them. They made all the decisions in their favour though the Indian businessmen provided the finance.

Q.17. Explain why industrial production in India increased during the First World War. [2010, 2011 (T-1)]

OR

How did industrial production in India increase during the First World War.

OR

“The First World War created favourable conditions for development of industries in India.” Give examples. [2011 (T-1)]

Ans. Industrial production in India increased during the First World War

- (i) British mills became busy with war production and Manchester imports into India declined.
- (ii) Suddenly Indian factories had a vast home market to supply goods.
- (iii) Indian factories were called upon to supply war needs : jute bags, cloth for army uniforms, tents and leather boots, horse and mule saddles and a host of other items.
- (iv) New factories were set up and old ones ran multiple shifts. Many new workers were employed and everyone was made to work longer hours. Over the war years industrial production boomed.
- (v) After the war, Manchester could not recapture its old position in the Indian market. The economy of Britain collapsed after the war, cotton production and exports fell. Local industrialists in India consolidated their position, substituting foreign goods and capturing the home market.

Q.18. “The modern industrialisation could not marginalise the traditional industries in England.” Justify the statement with any four suitable arguments. [2010, 2011 (T-1)]

- Ans.** (i) The new industries could not easily displace traditional industries. At the end of 19th century itself, less than 20% of total workforce was employed in advanced technological industrial centres. Textile industry itself produced a large portion of its output not within the factories, but outside, within domestic units.
- (ii) In non-mechanised sectors such as food processing, building, pottery, glass work, tanning furniture making and production of implements, ordinary and small innovations were the basis of their growth.
- (iii) Technological changes were not accepted at once by the industrialists. Their growth was slow as new technology was expensive and often broke down; and repairs are costly.
- (iv) The traditional craftsmen and labour and not a machine operator was still more popular. Hand-made things were popular, as machines produced mass designs and there was no variety. For example, human skill produced 45 kinds of axes and 500 varieties of hammers, which no machine could produce.

Q.19. What measures were adopted by the producers in India to expand the market for their goods in the nineteenth century? [2010 (T-1)]

- Ans.**
- When Indian businessmen set up industries in the late 19th century they avoided competing with Manchester goods in the Indian market.
 - Since yarn was not an important part of British imports into India, the early cotton mills of India produced coarse cotton yarn (thread) rather than fabric.
 - Imported yarn was of the finest quality.
 - The yarn produced in Indian spinning mills was used by handloom weavers or exported to China.
 - Dwarkanath Tagore set up six joint stock companies in 1830s and 1840s. In Bombay Parsis like Dinshaw Petit and Nusserwanjee Tata accumulated their wealth through exports to China. Some merchants traded with Burma while others had links with Middle East and East Africa. Some operated in India itself and when opportunities of investment in industries opened up, set up factories.

Q.20. Describe any four impacts of Manchester imports on the cotton weavers of India. [2011 (T-1)]

- Ans.** (i) Cotton weavers faced two problems. Their export market collapsed, and the local market shrank being glutted with Manchester imports. The imported machine-made goods were cheaper and of better quality.
- (ii) Due to American civil war Britain turned to India for cotton. As raw cotton exports increased prices of raw cotton shot up. Indian weavers were starved of supplies and forced to buy at exorbitant prices.
- (iii) By the end of 19th century, factories in India began production, flooding the market with machine-goods.

Q.21. What were the principal features of industrialisation process of Europe in 19th century? [2011 (T-1)]

- Ans.** (i) The most dynamic industries in Britain were cotton and metals. Cotton was the leading sector in the first phase of industrialisation. Soon iron and steel led the way.
- (ii) The new industries could not easily displace traditional industries. A large portion of textile output was produced not within factories but within domestic units.
- (iii) The pace of change in 'traditional' industries was not set by steam-powered cotton or metal industries but by ordinary and small innovations.

(iv) The technological changes occurred slowly. They didn't spread dramatically across the industrial landscape.

Q.22. Explain how the condition of the workers steadily declined in the early twentieth century Europe. [2011 (T-1)]

Ans. The abundance of labour in the market affected the lives of workers. Thousands tramped to cities for work. Many job-seekers had to wait weeks, spending nights in open sky or under bridges or in night shelters.

Seasonality of work in many industries meant prolonged periods without work. After the busy season was over, the poor were in the streets again hardly eating enough.

The workers' wages increased but so did the prices enabling lesser purchase of goods. Most of the workers were irregularly and seasonally employed pushing them to the brink of starvation and disease.

Q.23. Why in Victorian Britain, the upper classes preferred things produced by hand? Give four reasons. [2011 (T-1)]

- Ans.** (i) Handmade products came to symbolise refinement and class.
(ii) They were better finished, individually produced, and carefully designed.
(iii) Machine-made goods were for masses, for colonies, not for classes.
(iv) Handmade goods were costlier, of better quality and fine threads.

II. FORMATIVE ASSESSMENT

A. PROJECT

Project 1

- Topic** : Comparison between pre-industrial and post-industrial Britain.
- Objectives** : To create awareness of why Britain became the first industrial nation.
To understand that there was industrial production even before the factories came up.
To comprehend what industrialisation meant to people's lives.
- Skills Developed** : Critical and creative thinking, planning, problem solving.
- Time** : One week
- Method** : Understanding proto-industrialisation
Industrialisation in the 17th and 18th centuries — in towns, in countryside
Commercial exchanges, effect on family lives
Inventions, Factories coming up, Steam-power.
Pace of changes made by industrialisation
Live of the workers.
Illustrations, pictures, cartoons, depicting life in factories, workers in cities etc.

Project 2

- Topic** : Industrialisation in the colonies – India and textile industries
- Objectives** : To create awareness of how colonisation led to European companies gaining power
How it crushed Indian textile industry
- Skills Developed** : Critical and analytical thinking, Planning, Comparisons, Developing empathy for the Indian weavers and workers, Communicative skills.

- Time** : 4 days
- Method** :
 - Study of Indian textile industry before British domination
 - Collecting information from newspaper reports, magazines
 - Stories of weavers, mill workers their problems.
 - Collecting illustrations of factories, workers

B. ASSIGNMENTS

1. Write a report on how the age of industries meant :
 - Changes in technology
 - Growth of factories
 - Making of an industrial force.
2. Imagine you are a worker in England during the Victorian Age. Write to a newspaper about your life, working conditions and the problems you have to face.
3. As a journalist, write a letter to the editor commenting on the methods used by Manchester and Indian manufacturers to advertise their goods.

C. QUIZ

Arrange a class quiz, divided under the following heads :

- (a) Inventions (b) Dates (c) Events (d) Personalities (e) Visuals.

Choose two leaders to prepare and conduct the quiz.

A Quiz competition can be held sectionwise, with four representatives from each section participating in it.

D. ROLE-PLAY

Five students should dress up as the following and tell the class about their role in industrialisation. The participants chosen should speak about their contribution to industry.

Roles : A head jobber, James Hargreaves, Dwarkanath Tagore, Jamsetjee Jeejeebhoy, JRD Tata

E. ACTIVITY

1. Collect as many pictures of inventions that helped in the growth of industrialisation. Note the name of the inventor, date, country and how the invention helped in the progress of industry. Divide the class into two groups.
 - One group prepares a chart of Inventions till the end of the 19th century.
 - The second group of the 20th century. Display the best charts in class. The teacher should act as the judge.
2. Have a class discussion on the role of advertisements in expanding the markets for products. Are they desirable or necessary? Compare the methods of the 19th century with the modern ones.
3. Collect some advertisements and posters produced in the late 19th century. Make a collage. Write a humorous account of each one of them. Compare them with modern advertisements and discuss the difference in class.

F. POSTER ADVERTISEMENT

4. Every student in class should make an original advertisement for a new product and speak for a minute about it. The class should vote and choose the best one for display.