

## Chapter 11: Buildings, Paints and Books

### Intext Questions:

**Question 1.** Make a diagram like the one on page 80 (Chapter 8) to show the stages in the building of a temple or stupa.

**Answer:**

Good quality stone to be found, quarried and transported to the new building place by kings or queens

Rough stone blocks are carved into pillars, panels for walls, ceilings and floors

Precisely placed these carved stones in right place

**Question 2.** Do you think Kalidasa can be described as a lover of nature?

**Answer:** Kalidasa can be described as lover of nature from his works like Meghaduta, where he imagined cloud as a messenger between two lovers. In his famous book Abhignana Shakuntalam also, he described the beauty of shakuntala with nature and the nature beauty where she was brought up.

**Question 3.** There are several versions (many of which are performed) of the Mahabharata and the Ramayana, popular amongst people in different parts of the subcontinent. Find out about a version in your state.

**Answer:** As I am from Andhra Pradesh, there are popularly three versions of Ramayana. They are –

1. Ranganadha Ramayana by Gona buddha reddy
2. Molla Ramayana by Monna
3. Ramayana Kalpavruksham by Viswanatha Satyanarayana

The most popular version of Mahabharatam in Andhra region is written by three poets popularly known as Kavitravam. They are Nannaya, Tikkana, Yerrana.

**Question 4.** This story is shown on a piece of sculpture found from a stupa at Bharhut in central India. Can you identify which parts of the story are shown in the sculpture? Why do you think these were chosen?

**Answer:** The king and attendants capturing the budhisattva falling from the tree & trying to rescue him. The monkey king preaching the human king that he should protect his subject in the same way he protected his monkey followers. The reason to choose these to depict the leadership quality of king towards his followers even at the cost of his own life.

**Question 5.** Varahamihira, Brahmagupta and Bhaskaracharya were some other mathematicians and astronomers who made several discoveries. Try and find out more about them.

**Answer:** Varahamihira's most notable work was the Brihat Samhita, an encyclopedic work on architecture, temples, planetary motions, eclipses, timekeeping, astrology, seasons, cloud formation, rainfall, agriculture, mathematics, gemology, perfumes and many other topics.

Brahmagupta wrote book Brahmasphutasiddhanta. It is the first text that mentions zero as a number. Besides that, he also gave out many algebra and arithmetic related concepts and formulas.

Bhaskaracharya wrote Siddhanta Shiromani (Crown of Treatises) that has laid foundations for many theories in arithmetic, algebra, mathematics of the planets, and spheres. He was perhaps the first to conceive the differential coefficient and differential calculus, way before Newton and Leibniz.

**Question 6.** The Romans used a system of counting without using zero. Try and find out more about it.

**Answer:** Roman numerals, the numeric system used in ancient Rome, employ combinations of letters from the Latin alphabet to signify values. The Roman numeral system is a positional numbering system. This system employs some capital letters as symbols to represent certain numbers, most numbers are written as combinations of letters.

**Question 7.** What were manuscripts in early India made out of ? (Hint: See Chapter 1)

**Answer:** Manuscripts were usually written on palm leaf, or on the specially prepared bark of a tree known as the birch, which grows in the Himalayas.

### Imagine

**Question:** You are sitting in a mandapa of a temple. Describe the scene around you.

**Answer:** I have visited a local temple which is having one mandap. I observed 10 finely carved pillars around mandap. In the middle of mandap I saw a priest is conducting a marriage ceremony where the bride and groom encircled a holy fire lit by the priest. Beside that I saw a structure which is made of burnt bricks and it is use for conducting homas.

### Let's recall

**Question 1.** Match the following:

1) Stupa

A) Place where the image of the deity is installed

2) Shikhara

B) Mound

3) Mandapa

C) Circular path around the stupa

4) Garbhagriha

D) Place in temples where people could assemble

5) Pradakshina patha

E) Tower

**Answer:** 1-B, 2-E, 3-D, 4-A, 5-C

**Question 2.** Fill in the blanks:

- \_\_\_\_\_ was a great astronomer.
- Stories about gods and goddesses are found in the \_\_\_\_\_ .
- \_\_\_\_\_ is recognised as the author of the Sanskrit Ramayana.
- \_\_\_\_\_ and \_\_\_\_\_ are two Tamil epics.

**Answer:**

- Aryabhatta
- Puranas
- Valmiki
- Manimekalai and Silappadikaram

### Let's discuss

**Question 3.** Make a list of the chapters in which you find mention of metal working. What are the metals objects mentioned or shown in those chapters?

**Answer:**

Chapter 3- Copper for tools, weapons  
Gold, Silver for Jewellery  
Chapter 4- Iron for tools, weapons  
Gold for jewellery

Chapter 5- Iron for tools like plough, weapons

Chapter 8- Iron for tools and weapons

Chapter 9- Gold ornaments

**Question 4.** Read the story on page 122. In what ways is the monkey king similar to or different from the kings you read about in Chapters 5 and 10?

**Answer:** The kings in chapters 5 and 10 as well as the monkey king looked after the welfare of the people and tried to protect their capital.

If we talk about the dissimilarities, the monkey king believed in peace and harmony. He never tried to capture the properties of other kings. On the other hand, other kings fought battles to capture the kingdoms of other kings

**Question 5.** Find out more and tell a story from one of the epics.

**Answer:** The story of Manimekalai describes that Manimekalai is the name of the daughter of Kovalan and Madhavi. After the death of Kovalan, Madhavi becomes a Buddhist nun who is once a courtesan. Manimekalai is a courageous girl who walks in the foot steps of her mother and become a courtesan and later a Buddhist nun. Her beauty attracts the chola prince Udhayakumara who tries to capture her. She rejects him and with the help of angels she disguises a married woman and get a magic begging bowl which is never empty. When prince try to advance towards Manimekalai the husband of woman in whose disguise Manimekalai was there kills the prince. Upon learning the news of son's death king and queen order to arrest and kill Manimekalai. In the prison she disappears whenever a person comes near her. Finally queen repents her mistake and sets Manimekalai free.

**Let's do**

**Question 6.** List some steps that can be taken to make buildings and monuments accessible to differently abled people.

**Answer:** The steps to make buildings and monuments accessible to differently-abled people are :

1. Construction of a ramp.
2. The steps can be renovated, so that people may not fall on the slippery ground.
3. Railing can be placed on the sidewalls of the staircase.
4. Proper lighting system.

**Question 7.** Try and list as many uses of paper as you can.

**Answer:** List of uses of paper. We can use paper for the following purposes/things etc.

1. For writing purposes.
2. To make books, note-books, etc.
3. To make kites.
4. To make pictures and paintings.
5. To make toys and flowers.

**Question 8.** If you could visit any one of the places described in this chapter, which would you choose and why?

**Answer:** I would choose Mathura because it is related to the life of Lord Krishna and it is very near to Delhi, my favourite city. Mathura is well connected by roads and railways. There are many shrines and temples. I am fond of sweets. Mathura is well-known for some of its sweet products, especially peras. Students can decide themselves.