Chapter- 10

Bulidings, Paintings and Books

2marks:

1. Make a list of the chapters in which you find mentions of metal working. What are the metal objects mentioned or shown in these chapters?

Answer:

In Chapters 4, 7 and 8, we can find mentions of metal working. The metal objects mentioned in these chapters are the axe, ploughshare, sickle and sword.

These metals were used for various purposes.

Axe was used for cutting wood, ploughshare and sickle were used for farming, and the sword was used for wars.

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

Answer:

One similarity between the human king and the monkey king is that both worked for the welfare of their subjects.

One major difference between the human king and the monkey king is that the monkey king did not wage wars, whereas the human king did wage wars.

3. Find out more and tell a story from one of the epics.

Answer:

There are plenty of stories in epics, students can go through any of them and mention the same.

4. List some steps that can be taken to make buildings and monuments accessible to differently-abled people.

Answer:

1.The construction of ramps will help disabled people who are on wheelchairs

2.Railings can be placed on the sidewalls of the staircase so that it helps as support while climbing

3.Proper lighting

5. Try and list as many uses of paper as you can.

Answer:

Paper is used in manufacturing the following:

1. Newspapers

2. Notebooks
3. Grocery bags
4. Boxes
5. Envelopes
6. Magazines
7. Cartons

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

Answer:

Students can share their personal stories for the above question.

7.What is the significance of the iron pillar at Mehrauli, Delhi?

Answer:

The iron pillar at Mehrauli, Delhi, is a remarkable example of Indian craftsmanship. Crafted over 1500 years ago, it stands 7.2 meters tall, weighs over 3 tonnes, and is made of iron. Despite its age, the pillar has not rusted, showcasing the advanced metallurgical skills of ancient Indian artisans.

8.What common features are associated with stupas, as mentioned in the text?

Answer:

Stupas, mentioned in the text, commonly have a small box (relic

casket) at their center, containing bodily remains or items associated with gods. The stupas are often surrounded by a path called pradakshina patha, and both railings and gateways are adorned with sculptures, depicting stories and symbols.

4marks:

1.Explain the hereditary nature of administrative posts during the Gupta period. Provide an example from the text.

Answer:

In the Gupta period, certain administrative posts became hereditary, passing from fathers to sons. An illustrative example is Harishena, who inherited the position of maha-danda-nayaka (chief judicial officer) from his father. This hereditary system was not merely a result of familial privilege; it had broader implications for the efficiency and stability of administrative functions. By passing down administrative responsibilities through familial lines, the Gupta rulers aimed to maintain a sense of familiarity, experience.

2.Elaborate on the architectural skills displayed in the construction of the iron pillar at Mehrauli, Delhi.

Answer:

The iron pillar at Mehrauli, Delhi, exemplifies exceptional Indian craftsmanship. Standing at 7.2 meters and weighing over 3 tonnes, it was created around 1500 years ago. What's remarkable is that despite its age, the pillar has not rusted. This showcases advanced metallurgical skills and a deep understanding of materials and their preservation by ancient Indian artisans.

3.Describe the common features of stupas mentioned in the text.

Answer:

Stupas, as discussed in the text, typically have a central small box known as a relic casket, containing bodily remains or items associated with deities. The construction involves covering the relic casket with earth, adding layers of mud or baked brick, and sometimes overlaying it with carved stone slabs. Stupas are often surrounded by a pradakshina patha, a path for devotees to walk around in a clockwise direction, and both railings and gateways are adorned with sculptures depicting religious stories.

4.Highlight the significance of the Mandapa in Hindu temples as mentioned in the text.

Answer:

The Mandapa in Hindu temples serves as a hall where people can assemble. It is an integral part of temple architecture, providing a space for various religious and community activities. Often adorned with intricate carvings and designs, the Mandapa adds to the aesthetic appeal of the temple.

5.Discuss the contributions of Aryabhata to mathematics and astronomy during ancient India.

Answer: Aryabhata, a renowned mathematician and astronomer,

made significant contributions during ancient India. In his Sanskrit work, Aryabhatiyam, he explained the rotation of the earth causing day and night and provided a scientific explanation for eclipses. Aryabhata also formulated a method for calculating the circumference of a circle, demonstrating advanced mathematical understanding.

6.Explain the role of the Puranas in preserving and disseminating religious stories in ancient India.

Answer:

The Puranas played a crucial role in preserving and disseminating religious stories in ancient India. Written in simple Sanskrit verse, these texts contained narratives about gods, goddesses, kings, and the creation of the world. Meant to be accessible to all, the Puranas were likely recited in temples, contributing to the oral tradition of sharing religious stories.

7.Discuss the impact of ancient Indian mathematicians like Brahmagupta and Bhaskaracharya on the field of mathematics.

Answer:

Mathematicians like Brahmagupta and Bhaskaracharya had a profound impact on the field of mathematics in ancient India. They made notable discoveries, contributing to areas such as algebra and astronomy. Brahmagupta, for instance, provided solutions to quadratic equations, while Bhaskaracharya made advancements in

calculus. Their works influenced the development of mathematical knowledge in the subcontinent.

8.Explain the cultural significance of the Jatakas and the Panchatantra in ancient India.

Answer:

The Jatakas and the Panchatantra hold cultural significance in ancient India as collections of stories, poems, and fables. These texts, compiled around the same time, preserved narratives told by ordinary people. The Jatakas, often depicted on stupas and in paintings, conveyed moral lessons through tales, while the Panchatantra offered practical wisdom through animal fables. Both contributed to the rich oral tradition and cultural heritage of ancient India.

9.Describe the role of Ayurveda in ancient Indian society, highlighting the contributions of practitioners like Charaka and Sushruta.

Answer:

Ayurveda, an ancient Indian system of health science, played a significant role in society. Practitioners like Charaka and Sushruta made notable contributions. Charaka's work, Charak Samhita, focused on medicine, while Sushruta's Susruta Samhita detailed elaborate surgical procedures. These texts provided comprehensive insights into

healthcare, emphasizing holistic well-being and demonstrating the advanced medical knowledge of ancient India.

10.Assess the technological advancements demonstrated by the iron pillar at Mehrauli, Delhi, during the Gupta period, and discuss its implications for ancient Indian metallurgy and craftsmanship.

Answer:

The iron pillar at Mehrauli, Delhi, is a remarkable testament to the technological prowess of ancient Indian metallurgists during the Gupta period. Standing at 7.2 meters tall and weighing over 3 tonnes, the pillar was forged approximately 1500 years ago. Despite its age, it has not succumbed to rust, showcasing an advanced understanding of iron-forging techniques.

7marks:

1.Discuss the technological significance of the iron pillar at Mehrauli, Delhi, during the Gupta period. How does its corrosion resistance reflect the advancements in ancient Indian metallurgy?

Answer:

The iron pillar at Mehrauli, Delhi, stands as a testament to the technological achievements of the Gupta period. With a height of 7.2 meters and a weight exceeding 3 tonnes, it showcases remarkable corrosion resistance despite its age of around 1500 years. This technological feat suggests an advanced understanding of metallurgy in ancient India. The composition of the iron alloy, the forging techniques employed, and the heat treatment methods used all contribute to its longevity, reflecting the high degree of sophistication in ancient Indian metallurgical practices.

2.Elaborate on the architectural and artistic features of the stupas mentioned in the text. How did these structures serve religious and cultural purposes during ancient times?

Answer:

Stupas, as described in the text, exhibit distinct architectural and artistic features. Typically characterized by a mound, stupas often house a relic casket at the center containing bodily remains or artifacts related to Buddhist figures. The structure is covered with earth,

followed by layers of mud or baked brick, and sometimes adorned with carved stone slabs. Surrounding the stupa, a pradakshina patha, or circumambulatory path, is laid, enclosed by railings and gateways featuring intricate sculptures.

These stupas served multifaceted religious and cultural purposes. The relic caskets symbolized veneration for revered figures, fostering religious devotion. The pradakshina patha facilitated ritualistic circumambulation, signifying reverence and devotion. The intricate sculptures on railings and gateways conveyed religious narratives and cultural themes, contributing to the artistic and cultural richness of ancient Indian society.

3.Evaluate the role of ancient Indian epics, such as the Mahabharata and Ramayana, in shaping cultural and moral values. How did these narratives impact the socio-religious fabric of society?

Answer:

The Mahabharata and Ramayana, two prominent ancient Indian epics, played a pivotal role in shaping cultural and moral values. These narratives are not merely stories but comprehensive compilations of cultural, ethical, and social teachings. The Mahabharata, with its Bhagavad Gita, addresses moral dilemmas and philosophical concepts, providing a guide to righteous living.

The impact of these epics on the socio-religious fabric was profound. They became sources of ethical guidance, influencing norms and values in society. Characters like Rama and Krishna served as moral exemplars, and their stories were woven into religious discourses and rituals. The epics promoted dharma (righteousness) and shaped the collective consciousness, fostering a shared cultural identity and ethical framework in ancient Indian society.

4.Analyze the contributions of ancient Indian mathematicians and astronomers, including Aryabhata and Varahamihira. How did their works influence the development of mathematical and astronomical knowledge?

Answer:

Ancient Indian mathematicians and astronomers, such as Aryabhata and Varahamihira, made significant contributions that influenced the development of mathematical and astronomical knowledge. Aryabhata, in his work Aryabhatiyam, provided insights into the rotation of the Earth on its axis, explained day and night cycles, and proposed a method for calculating the circumference of a circle.

Varahamihira, along with Brahmagupta and Bhaskaracharya, contributed to advancements in mathematical and astronomical understanding. Their works addressed concepts like algebra, geometry, and planetary motions. Varahamihira's contributions

include the Brhat Samhita, covering diverse subjects like astrology, geography, and architecture.

The works of these mathematicians and astronomers not only enriched ancient Indian knowledge but also had a lasting impact on global mathematical and astronomical developments, influencing subsequent generations of scholars and scientists.

5.Examine the role of stories from the Jatakas and the Panchatantra in preserving cultural and moral traditions in ancient India. How were these narratives transmitted, and what purposes did they serve in society?

Answer:

Stories from the Jatakas and the Panchatantra played a crucial role in preserving cultural and moral traditions in ancient India. These narratives, often composed in the form of fables and tales, served as repositories of ethical teachings and practical wisdom. The Jatakas, stories associated with the previous lives of the Buddha, conveyed moral lessons and virtues.

The transmission of these narratives occurred through oral traditions, with storytellers and performers passing them down through generations. These stories were not only entertaining but also served educational purposes, imparting moral values, ethical conduct, and practical insights. The Jatakas, in particular, were often depicted on

railings of stupas and in paintings at places like Ajanta, contributing to the visual representation of cultural and moral traditions.

6.Assess the significance of the concept of zero in ancient Indian mathematics. How did the invention of the zero symbol contribute to mathematical advancements, and how was it adopted globally?

Answer:

The concept of zero in ancient Indian mathematics holds immense significance. Mathematicians in ancient India invented a special symbol for zero, representing a revolutionary development in numerical notation. This zero symbol played a crucial role in arithmetic and algebraic calculations, facilitating more complex mathematical expressions.

The adoption of the zero symbol by Arab scholars and its subsequent spread to Europe marked a global mathematical transformation. The introduction of zero revolutionized numeral systems, paving the way for the development of decimal notation. This innovation in ancient Indian mathematics laid the foundation for modern numerical systems and significantly influenced the field of mathematics worldwide.

7.Examine the role of Ayurveda in ancient Indian healthcare, highlighting the contributions of Charaka and Sushruta. How did

these ancient medical practitioners impact the understanding and practice of medicine in their time?

Answer:

Ayurveda, a well-known system of health science in ancient India, made significant contributions to healthcare. Charaka and Sushruta, two renowned practitioners, played crucial roles in shaping the understanding and practice of medicine during their time.

Charaka's work, Charak Samhita, stands as a comprehensive treatise on medicine. It addresses principles of diagnosis, treatment, and preventive healthcare, reflecting a systematic approach to medical knowledge. Sushruta's Susruta Samhita focused on surgical procedures, describing intricate techniques for various surgeries. Together, their contributions laid the foundation for Ayurveda, influencing medical practices and theories in ancient India.

8.Explore the cultural and religious significance of ancient Indian temples, using examples like the Durga temple at Aihole and monolithic temples at Mahabalipuram. How did these temples contribute to the socio-religious fabric of ancient Indian society?

Answer:

Ancient Indian temples, exemplified by structures like the Durga temple at Aihole and monolithic temples at Mahabalipuram, held immense cultural and religious significance. The Durga temple, built

around 1400 years ago, featured a shikhara and a garbhagriha dedicated to the chief deity. The monolithic temples at Mahabalipuram, carved from single stones, showcased intricate craftsmanship.

These temples contributed to the socio-religious fabric by serving as centers of worship, fostering a sense of community and spiritual identity. The garbhagriha housed the main deity, where priests performed rituals, and devotees offered worship. The temples also provided spaces like mandapas for communal gatherings and cultural events, reinforcing the integration of religious and cultural practices in ancient Indian society.

Let's Recall:

1. Match the following.

Stupa	**Place where the image of the deity is installed**
Shikhara	**Mound**
Mandapa	**The circular path around the stupa**
Garbagriha	**Place in temples where people could assemble**
Pradakshina patha	**Tower**

Answer:

Stupa	Mound
Shikhara	Tower
Mandapa	Place in temples where people could assemble
Garbagriha	Place where the image of the deity is installed
Pradakshina patha	The circular path around the stupa

Fill in the blanks

1.————————- was a great astronomer

Answer:

Aryabhata

2.Stories about Gods and Goddesses are found in the ————————

Answer:

Puranas

3.————————- is recognised as the author of the Sanskrit

Ramayana.

Answer:

Valmiki

4.——— and ———- are two Tamil epics.

Answer:

Silappadikaram and **Manimekalai**

5.The iron pillar at Mehrauli, Delhi, is a remarkable example of ancient Indian _____.

Answer:

Metallurgy

6.Stupas, characterized by a central mound, served as religious structures for the veneration of _____.

Answer:

Bodily remains or artifacts of Buddhist figures

7.The _____, such as the Bhagavad Gita, offer philosophical and moral guidance within the Mahabharata.

Answer:

Epics

8.Ancient Indian mathematician _____ made significant contributions to understanding the rotation of the Earth and calculated the circumference of a circle.

Answer:

Aryabhata

9.The Jatakas and the Panchatantra played a crucial role in preserving cultural and moral traditions through engaging _____.

Answer:

Narratives

10.The concept of zero in ancient Indian mathematics significantly influenced the development of numeral systems, contributing to the evolution of _____.

Answer:

Decimal notation.

Multiple choice:

1.What is the primary material of the Iron Pillar at Mehrauli, Delhi?

a) Copper

b) Bronze

c) Wrought iron

d) Cast iron

Answer:

c) Wrought iron

2.Stupas often contain a small box at their center known as:

a) Sanctum sanctorum

b) Mandapa

c) Garbhagriha

d) Relic casket

Answer:

d) Relic casket

3.Who composed the famous Tamil epic, Silappadikaram?

a) Kalidasa

b) Ilango

c) Valmiki

d) Sattanar

Answer:

b) Ilango

4.The Mahabharata and Ramayana are examples of:

a) Puranas

b) Epics

c) Stupas

d) Temples

Answer:

b) Epics

5.Which astronomer proposed the idea that day and night are caused by the rotation of the Earth on its axis?

a) Varahamihira

b) Brahmagupta

c) Aryabhata

d) Bhaskaracharya

Answer:

c) Aryabhata

6.The Sanskrit work 'Meghaduta' is a famous poem written by:

a) Kalidasa

b) Valmiki

c) Sattanar

d) Ilango

Answer:

a) Kalidasa

7.What important mathematical concept did ancient Indian mathematicians introduce?

a) Trigonometry

b) Calculus

c) Zero

d) Algebra

Answer:

c) Zero

8.Which system of health science was developed in ancient India?

a) Alchemy

b) Ayurveda

c) Homeopathy

d) Naturopathy

Answer:

b) Ayurveda

9.The stories from the Jatakas were often depicted in:

a) Temples

b) Stupas

c) Paintings

d) Monasteries

Answer:

c) Paintings

10.The ancient Indian numeral system, including the concept of zero, greatly influenced:

a) Chinese mathematics

b) European mathematics

c) Islamic mathematics

d) Mesopotamian mathematics

Answer:

b) European mathematics

Summary:

The chapter "Buildings, Paintings, and Books" delves into the cultural and technological achievements of ancient India, highlighting contributions in metallurgy, architecture, literature, and mathematics. The Gupta period witnessed hereditary administrative posts, exemplified by Harishena inheriting the role of maha-danda-nayaka. The remarkable Iron Pillar at Mehrauli, Delhi, crafted from wrought iron, stands as a testament to Indian metallurgical prowess.

Architectural feats include stupas, such as the Great Stupa at Sanchi, showcasing intricate carvings and a relic casket. Temples, like the Durga temple at Aihole, and monolithic structures at Mahabalipuram, display advanced craftsmanship. The narrative extends to ancient medical practices, with Ayurveda's development by figures like Charaka and Sushruta.

The chapter explores literary masterpieces like the Tamil epics Silappadikaram and Manimekalai, authored by Ilango and Sattanar, respectively. The Mahabharata and Ramayana, compiled by Vyasa, narrate timeless stories of war, love, and virtue. Notable mathematicians Aryabhata, Varahamihira, Brahmagupta, and Bhaskaracharya contributed to mathematis