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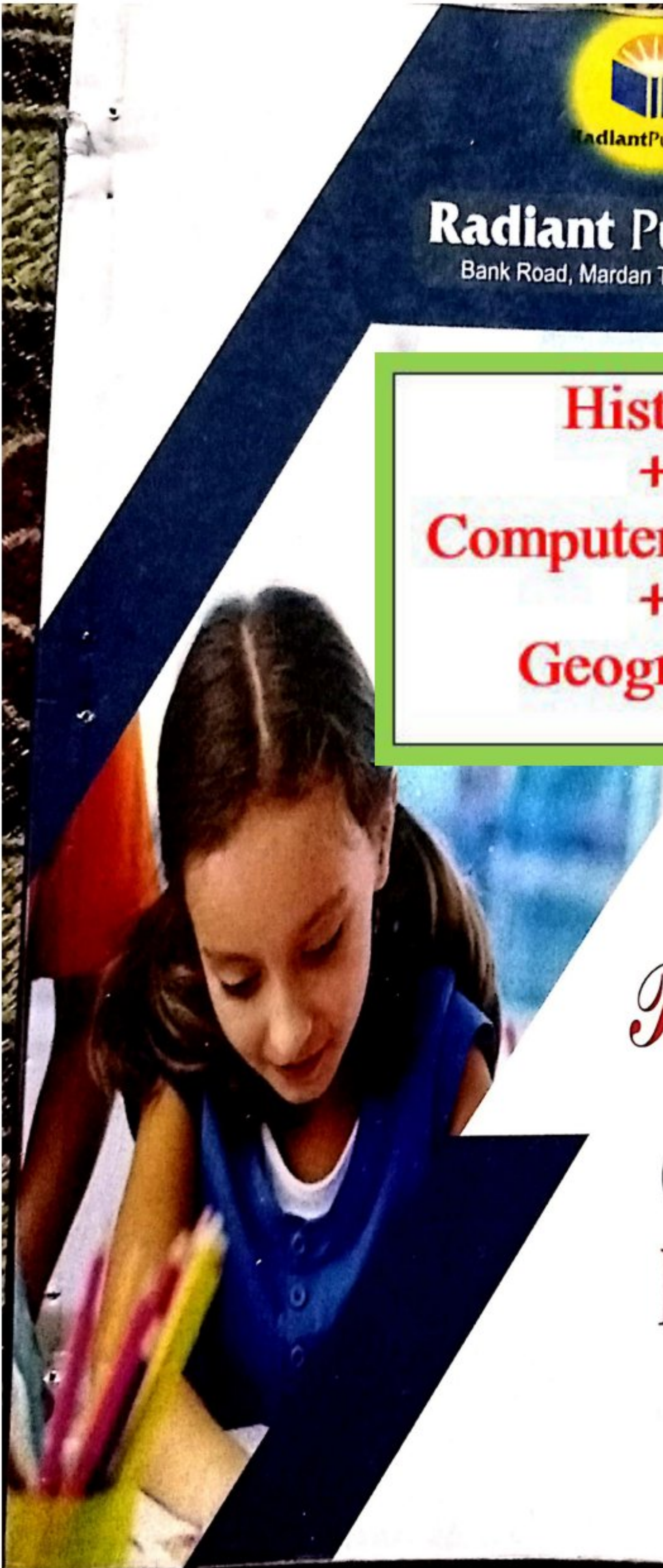
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**COMPLETE
MIDDLE GUIDE**

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HISTORY

Unit 1

World's Ancient Civilizations

Exercise

Q1: Answer the following questions by choosing the best option.

(i) The word history has been derived from:

- a. Latin b. Sanskrit
c. Greek ✓ d. Roman

(ii) History is the study of:

- a. Present events
b. Past events ✓
c. Future events
d. Predictions

(iii) Babylon was a city state of:

- a. Indus valley civilization
b. Babylonian civilization ✓
c. Egyptians civilization
d. Shang dynasty

(iv) Women had rights and they were powerful in the ancient civilization of:

- a. Egypt b. Indus valley
c. Shang dynasty
d. Sumer valley ✓

(v) Sumerian Civilization developed along:

- a. Nile River
b. Euprates Rivers ✓
c. Tigris River ✓
d. Yellow River

(vi) UR was an ancient city state in:

- a. Egypt b. Iran
c. Sumeria ✓ d. Antalia

Q2: Study the following chart that is comparing the Civilizations of Mesopotamia and Egypt.

	Mesopotamia	Egypt
1) Rivers	Euphrates and Tigris	Nile River
2) Government	City states, led by kings and priests eventually empires formed	Village united into kingdoms, were later united and ruled by pharaohs
3) Economy	Farming and Trade	Farming and trade
4) Work of artisans	Pottery, metal products, cloth	Pottery, metal products and cloth
5) Natural defences	Flat mud plains	Nile delta, Sahara, eastern desert
6) Advances	Cuneiform Calendar wheel Wooden plough sailboat wheel	Hieroglyphics Chariots Number system Calendar Chariot Medicines

a. What were the differences and similarities between

Mesopotamian and Egyptian inventions? Write comparative statements.

Ans: a. Similarities:

- Both the civilizations flourished along the bank of rivers.
- Both the civilizations were based on farming and trade.
- Both the civilization invented a number of items.

Differences:

- The inventions of Egyptians were more scientific.
- Mesopotamian civilization focused on agriculture only, while Egypt civilization were more advanced.

b.	Mesopotamia	Egypt
Governments	It was based on city states. It was ruled by kings and priests	It was based on villages. It was ruled by kings named pharaohs.
Natural Defenses	There natural defence was based on flat mud plains	There natural defence was based on Nile delta, sahara desert.

Q3: Answer the following questions in few lines.

1. What is history?

Ans: History is the study of past. The word "history" is derived from the Greek word "historia" which means seeking knowledge through inquiry,

narratives and historical records.

2. Identify some early river valley Civilizations?

Ans: The world's early civilizations such as Mesopotamia, Egypt, Indus valley and China developed along the banks of warm river valleys. The rivers provided people with a continues source of food.

3. What are the main inventions of Sumerians?

Ans: Archaeologists have discovered agricultural and hand tools made of stone and bronze. There include hoes, knives, adzes, as well clay artifacts such as sickles, bricks painted pottery and porcelains.

4. Describe the role of Pharaoh in the governance of Egypt?

Ans: The role of Pharaoh included

- (i) uniting Egypt
- (ii) leading in good and bad time
- (iii) issuing orders
- (iv) participation in religious ceremonies

5. What was the method of mummification and why did Egyptians do it?

Ans: The ancient Egyptians believed in the concept of afterlife. This was the primary reason for the ancient ritual of mummification. The body was cloth-wrapped and adorned with jewels and charms. A mask bearing the likeness of the deceased was placed on the

face. Drinks, food, and riches were buried with the mummy.

6. What was Cuneiform?

Ans: The earliest form of writing is known as cuneiform which was developed by Sumerians.

Q4: Answer the following questions in your own words in some detail.

1. Why was Babylonian Civilization important?

Ans: The Babylonian civilization was amongst the first empire builders who rose in ancient Mesopotamia. Babylonian cities were built along the Euphrates River. In 1792 BC, Hammurabi became the first king of Babylon. Under Hammurabi's rule, Babylon developed as the cradle of learning and culture and grew into a powerful city by erecting magnificent and lavish buildings, royal palaces with compounds. Gardens, cemeteries and ziggurats.

2. How was Egyptian society structured in the form of a pyramid?

Ans: Egyptian society was organized like a pyramid. The pharaohs were at the top. Pharaohs were the kings and queens of Egypt. Next to him was Vizier. All the other officials reported to the vizier. Other officials who reported to Pharaoh were the priests, army commanders, the chief treasurer, and the minister of public works. Scribes kept track of the finances and recorded taxes and the census. The farmers who lived in small villages always paid the taxes on the crops they grew.

3. Compare the social hierarchy in Sumer valley and ancient Egypt.

Ans:

Sumer valley	Egypt
The Sumerians war leaders gained prominence and eventually became rulers. A social hierarchy was created. The ruling family, high level priests, and top officials held the highest positions in the society. The second level of hierarchy consisted of government officials and priests. The third tier included scribes, merchants and Artisans. The farmers and slaves made up the lowest rank in this hierarchy	Egyptian society was organized like a pyramid. The pharaohs were at the top. Pharaohs were the kings and queens of Egypt. Next to him was Vizier. All the other officials reported to the vizier. Other officials who reported to Pharaoh were the priests, army commanders, the chief treasurer, and the minister of public works. Scribes kept track of the finances and recorded taxes and the census. The farmers who lived in small villages always paid the taxes on the crops they grew.

4. Describe the irrigation methods in ancient Egypt?

Ans: Irrigation through Shaduf was widely used. Shaduf is a hand-

operated device for lifting water, invented in ancient time.

5. Describe the position of women in the ancient civilizations discussed in this chapter.

Ans: The Sumerian women had some degree of independence and respect. Many women performed household responsibilities whereas men were regarded as the family's head. Women enjoyed many rights in society as a result of their religious beliefs and traditions. Women served as priestesses, and some were so powerful that they could buy and sell property, slaves, run businesses and performed religious ceremonies.

In ancient Egypt, women had rights and freedom, even the ability to become pharaoh. For example Hatshepsut. She was more interested in trade which brought immense wealth to Egypt.

Unit 2

The Ancient Civilizations Indus Valley and Chinese Civilizations Exercise

Q1: Choose the best option.

(i) The Harappan used to store surplus food in:

- granary✓
- Underground tunnels
- Random places Houses

(ii) The Mehrgarh people had knowledge about metal technology, as evidenced by:

- Beads
- pottery
- Shaft-hole axe✓

d. seals

(iii) Chop sticks were invented in:

- China✓
- Sumer
- Harrappa
- Mehrgarh

(iv) The settlements in Indus valley were mostly located in:

- Scattered areas
- Shanty areas
- caves
- urban areas✓

(v) Social amusements of Indus people included:

- Hunting
- archery
- dicing✓
- clay modeling✓

Q2: Answer the following questions in 3 to 5 lines.

1. Enlist the inventions and discoveries made by Shang and Zhou dynasty.

Ans: During the Shang and Zhou periods, the Chinese studied the movement of the planets, recorded eclipses, and developed an accurate calendar. As China's Bronze Age reached its peak, the Shang Dynasty produced writing system, exquisite bronze vessels, horse-drawn Chariot and weapons.

2. Describe the early settlements in Mehrgarh.

Ans: Mehrgarh is thought to be the forerunner of the Indus Valley Civilization. Between 7000 and 5500 BC, Mehrgarh was a small pre-Indus farming and pastoralist settlement located at the foot of the Bolan Pass in Balochistan, Pakistan.

3. What was the layout of Harrappa's town?

Ans: The Indus Valley Civilization consisted of mostly urban areas where people lived a highly civilized life. This means that it had proper and well-planned cities. The houses were made up of sun-dried bricks. Streets were fairly wide having a width between 10-30 feet.

4. Why were seals used in ancient civilizations?

Ans: Many stamps and seals with depictions of animals and humans were discovered during the excavations. Archeologists found the earliest known examples of the Indus script used during the early Harappan phase, but it could not be translated into other languages.

5. Name some of the primary occupations and lifestyle of the Harappan people.

Ans: The primary occupations among the inhabitants were arts, crafts, and trade. Potters, masons, and metalworkers.

The social conditions of the citizens were as good as those in Sumeria. The society in Indus valley was divided into four main classes: (i) Priests, (ii) Warriors, (iii) Traders and (iv) Working class.

Q3: Answer the following questions in detail.

1. What were the similarities and differences between the governance and religion of Shang and Zhou dynasties and Indus valley civilizations? You can take

help of columns to answer the question.

Ans:

	Shang and Zhou	Indus Valley
Governance	Shang Dynasty was ruled by absolute monarchs whereas the Zhou emperor ruled the dynasty by feudal system. This meant that the king was the only one with the authority to make laws in the country. In ancient Shang and Zhou dynasties, society was organized through social hierarchy.	The governance in Indus Valley was founded on religion and trade with commands coming from great priests or Monarchs. The Indus Valley Civilization had laws to care for nature, to avoid violence, and to pay taxes.
Religion	In ancient China, people had a wide range of religious beliefs. They adhered to polytheistic religion and believed in spirits from nature.	Polytheism was widespread in the Indus Valley.

2. Do you think that the economy of Shang and Zhou dynasty was strong? Explain with the help of evidences given in the chapter.

Ans: During the Shang and Zhou eras, the empire's economy was mainly based on agriculture. Historians note that the presence of fertile alluvial sediment on either side of Yellow river enabled Shang and Zhou people to grow more food. Wealth and skilled labor were available for other innovative works such as Shang tombs, walled cities and the Grand Canal.

3. What was the ethical code of Confucius.

Ans: Confucius was a Chinese philosopher who flourished around 500 BC. His teachings had a significant impact on the development of Chinese character, behavior, and way of life. He taught appropriate personal behavior and advised that children should respect their elders. He highlighted that a good leader should have a strong moral character and serve as a role model for his people. Confucius believed that the ideals of justice, Respect, love, Wisdom and sincerity are at the heart of good governance.

Q4: Match the columns about the claims with the evidence related to Indus valley civilization.

Claim(statement)	Evidence
1. The people of the Indus Valley Civilization used mud bricks for buildings.	2. Many artifacts including the great stone statue with an ornate headband, toy carts, jewellery, and other items were found during the excavations.
2. The people of the Indus Valley civilization were skilled craftsmen.	Many animal footprints found in mud, toy animals, remains of animal bones, and the pictures of animals on seals were found.
The people of the Indus Valley Civilization traded with other people.	The excavations in Mohenjo Daro revealed houses made of bricks.
The Indus Valley Civilization was peaceful.	The seals found with pictures of animals were probably used for trading goods.
The people of the Indus Valley Civilization were used to domesticating animals	The excavations in Mohenjo Daro did not reveal Weapons.

Unit 3 Persians, Greeks and Romans Exercise

Q1: Fill in the blanks by choosing the best option.

- (i) The term Pax Roman means:
a. Roman Peace✓
b. Roman Art
c. Roman Culture
d. Roman Warfare
- (ii) Alexander established _____ in ancient Egypt which became the affluent capital of the Ptolemaic, a Mesopotamia kingdom:
a. Ethens b. Alexandria✓
c. Babylon d. Harrapa
- (iii) Cyrus the Great was emperor of:
a. Indus Valley b. Egypt
c. Mesopotamia d. Persia✓
- (iv) During Persian Empire 'Susa to Sardis' was an early form of:
a. Suez Canal b. Alexandria
c. Silk Road✓ d. Qashqai rugs
- (v) After the decline of Greek Civilization, Roman Empire became the unrivaled power in the known world due to its strong:
a. Economy b. military✓
c. culture d. democracy

Q2: Answer the questions briefly

1. What was the origin of Persians?

Ans: Ancient Iran, also known as Persia, was a historical region of southwestern Asia closely linked to modern Iran. Early Persians referred to their homeland as Parsa. The Medes

ruled over the Persians until Cyrus the Great arrived in 559-530 B.C.

2. What was similar in the Persian and Greek civilizations?

Ans: The Persian society was well organized. It was structured in a strict social hierarchy with the royals and clergy at the top, lower classes and slave population was placed in the last tier. The Persian Empire had the best-educated and well-paid civil servants. Farmers owned slaves and used them as agricultural laborers. Although Persian societies were patriarchal, women had a great deal of autonomy. They could own and manage property and engage in economic activities.

The Ancient Greek Civilization is recognized as one of the world's most remarkable and dynamic civilization. Greece was not a single country in ancient times. It was a group of different territories inhabited by Greek speakers. The Minoans built a beautiful society that dominated the Mediterranean world. At the same time, people from the Black Sea and Anatolia lowlands moved to mainland Greece and settled.

3. Describe the importance of the historical city of Taxila.

Ans: The city of Taxila is located in the district Rawalpindi in Pakistan. The city was well developed under the Persian

Empire. Under Darius I, the linkage of the Gandhara region was increased with the Western world due to the commercial network and trade relationships. The passage of various convoy of traders through the Gandhara assimilated with artistic and cultural influence of the diverse regions.

4. Highlight some of the impacts of Greek Civilization on the Subcontinent.

Ans: The conquests of Alexander spread Greek languages, culture, and ideas throughout the world. On the left bank of the Jhelum, Alexander established two major cities: Alexandria Nicaea and Bucephala. The invasion of Alexander weakened the power of the different free tribes, paving the stage for the establishment of the Mauryan Empire.

Q3: Answer the questions in detail.

1. Describe the main achievements of Greeks in arts, architecture and science.

Ans: Ancient Athens was center for philosophy, arts, science and learning which came to be known as the "Cradle of Western Civilization." Plato's Academy and Aristotle's Lyceum are also housed there.

- > They developed a theater at Epidaurus, built into a hillside.
- > They calculated the circumference of Earth.

2. Who was Alexander the Great? Describe his encounter with Raja Porus.

Ans: Alexander the great is one of the exceptional rulers in human history who founded the largest empire the world has ever witnessed. Alexander conquered Greece, Persia, Syria, and Egypt and incorporated them into his empire.

Alexander advanced to Indian Punjab in 327 BC where various tribes surrendered to him. King Porus, whose kingdom was located between the river Jhelum and Chenab, had one of the bravest armies of his time. When Porus was compelled to surrender before Alexander, he refused to recognize Alexander's power and challenged him to a battle. Porus resisted Alexander successfully and the battle remained indecisive. Alexander chose peace over war, and the Kingdom was returned to Porus. Alexander was amazed by the boldness and valour of this Indian king.

3. Explain the importance of Christianity on social, religious and political life of people?

Ans: Among the many legacies of Rome that impacted the world's culture and civilization, the emergence of Christianity as a major world religion was the most significant. The teachings of Jesus Christ were based on peace, forgiveness, love, and equality. This changed the social life of people. Through the Mediterranean, Christianity spread to Egypt, North

Africa, Syria, Turkey, and Greece. Rome eventually became the centre of Christianity.

4. How was the social and political life in Athens different from Sparta?

Ans: The ancient Athenians had a democratic system of their own because they could vote on critical decisions such as whether or not to participate in war. The city had a small army and during war everyone was supposed to fight. There was also a lottery system in order to elect all public officials.

Sparta was also a chief ancient city state in Greece. It was a warrior society. During the Greco-Persian Wars, Sparta was a key force in the Greek military. The assembly in Sparta was made up of elected Spartans. The Spartan's social order was divided into land-owning governing family, industrial workers and slaves. All manual labour in the city was performed by slaves, giving Spartan men greater time to engage in military activities. Spartan women were educated and taught athletics. Overall, Spartans laid great emphasis on duty, Strength, and discipline over individualism, beauty of nature and education.

Q4: Write short notes on the following.

- (i) Cyrus the Great
- (ii) Byzantine Empire

Ans: (i) Cyrus the Great

The Persian Empire was founded by Cyrus the Great. He was an outstanding diplomatic ruler and warrior. He was able to build one of

the world's largest empires by conquering the Babylonians; Phoenicians and Assyrians. Cyrus founded the Achaemenid Dynasty. The Achaemenid Dynasty was successful in bringing about progress, peace and economic development. Under the rule of Cyrus and Darius, roads were built and postal service was established.

(ii) Byzantine Empire:

The Byzantine empire existed from 395 BC to 1453. It is also known as Eastern Roman Empire. Its capital was Constantinople. It fall to ottoman Empire in 1453.

Unit 4

Aryans, Kushans, Guptas
Exercise

Q1. Chosse the best option.

- i. The Shudras were referred to as the:
 - a. high cast b. warriors
 - c. preists d. low caste✓
- ii. The Aryans were a group of nomadic tribes from:
 - a. Greece b. Persia
 - c. Central Asia✓ d. China
- iii. Kushan Empire's greatest emperor was:
 - a. Kansihka✓ b. Kadphises
 - c. Varuna d. Kautilya
- iv. Kanishka was follower of:
 - a. Janism b. Hinduism
 - c. Budhism✓ d. Taoism
- v. The capital of Maurya Empire was:
 - a. Parshapur b. Taxila
 - c. Magdh d. Patliputra✓

Q2. Answer the following questions briefly.**1. Who was Chandragupta?**

Ans: Around 321 BCE to 185 BCE, Chandragupta established the Mauryan dynasty which is also known as the Pan-Indian Empire. Chandragupta Maurya expanded the power towards the Western and Central part of the sub-continent. The capital of the empire was located in the Pataliputra which is a modern day city of Patna in India.

2. What were the links between Gandhara art and Kushan?

Ans: Kanishka is recognized as the greatest emperor of Kushan Empire.

Kanishka established the Gandhara School of Arts, a unique mix of western and eastern ideas.

3. Explain the importance of Arthashastra for Chandragupta Maurya.

Ans: Chandragupta Maurya established a network of regional governors and administrators, and a civil service and a centralized government was set up in accordance with the principles of the Arthashastra.

The Arthashastra is a Sanskrit book written by Chanakya Kautilya in ancient India about diplomacy, economic policy, and military strategy. Kautilya also served as an advisor to Chandragupta Maurya.

4. Who was Kanishka?

Ans: Kanishka is recognized as the greatest emperor of Kushan Empire. He was the third emperor of the Kushan dynasty. Kanishka's empire extended from present-day Bihar to the Indus Valley in the west. Puruspur, near modern-day Peshawar, stood as the empire's capital.

5. What are Stupas?

Ans: During Ashoka's reign, 84,000 Buddhist Stupas were built across the Indian subcontinent to celebrate Buddha's achievements. Stupas are dome-shaped building built as a Buddhist shrine. It is used for meditation.

3. Answer the following questions in detail.**1. Describe the social structure of Aryans.**

Ans: Aryans developed a caste system in India by defining key social standing in society held by native Indians. The four castes were as follows: 1) Brahmins (priests and teachers) 2) Warriors and rulers are examples of Kshatriyas. 3) Vaishyas were Merchants, traders, and farmers 4) Shudras, who were the working class.

The Dalits were referred to as the Untouchables because they were outside the caste system. Among their responsibilities were cleaning lavatories, sewage, and other jobs considered unclean by upper castes.

2. Explain a few contributions of Ashoka as the great King.

Ans: Ashoka's administration was mainly focused on the well-being and prosperity of his subjects. The direct collection of taxes on agriculture and provision of justice to the people were the two main pillars of his government. He showed his non-violent outlook of life through the edicts or laws carved onto the stones or the pillars of the famous trade routes and the pilgrimage sites in the empire.

3. Describe the similarities in art and architecture of Kushans and Guptas.

Ans: Similarities:

Both the Kushans and Guptas used stone art.

Kushan:

Kushan relics display imperial art of Iranian origin and also Buddhist art with a blend of Greco-Roman and Indian influences. Buddha sculptures display the beliefs and arts of the Kushan Dynasty as evident from different coins. Kushans followed Zoroastrianism, Greek cults and Buddhism.

Guptas:

During Ashoka's reign, Guptas art and architecture touched their peak. The best surviving examples of Mauryan art are Ashoka's Pillars. They were created by cutting single stones from the grey Chunar. There are around 30 pillars located throughout the Indian subcontinent.

4. Describe the importance of Ajanta and Ellora caves from a historical view point.

Ans: Ajanta and Ellora are renowned masterpieces of Buddhist religious art and have had a significant impact on India's art history. The Ajanta and Ellora caves are carved into the mountains. Both are UNESCO World Heritage Sites.

Ellora has 34 caves dating from the 6th to 11th centuries AD, whereas Ajanta has 29 caves spanning from the 2nd century BC to the 6th century AD. Ajanta's caverns are all Buddhist, but Ellora's caves are a mix of Buddhist, Hindu, and Jain caves.

5. What was Ashoka's strategy for promoting peace in his empire?

Ans: The wide spread bloodshed and barbaric nature of the conquest stirred the human nerve in Ashoka. He left armed conquest and adopted a policy called "conquest by religion". He became inclined to Buddhist ideals of tolerance, non-violence, and good behavior towards all people which eventually led him to embrace Buddhism.

Unit 5**Rise of Islamic Civilization
Exercise**

Q1: Answer the following questions by choosing the best answer A, B, C or D.

1. The constitution of Madinah was signed between the Muslims and the:

- a. Christians
- b. Mushrikeen
- c. Bedouins
- d. Jews✓

2. Among the pious caliphs whose period was the longest?

- Hazrat Abu Bakr Siddiq رضی اللہ تعالیٰ عنہ
- Hazrat Umar Farooq رضی اللہ تعالیٰ عنہ
- Hazrat Usman Ghani رضی اللہ تعالیٰ عنہ
- Hazrat Ali al Murtaza رضی اللہ تعالیٰ عنہ

3. The most distinct feature of the personality of Hazrat Usman رضی اللہ تعالیٰ عنہ that brought him title of "Ghani" is:

- Truthfulness
- Honesty
- Generosity ✓
- Modesty

4. Which of the pious caliphs had the title Khalifa tu Rasul:

- Hazrat Abu Bakr رضی اللہ تعالیٰ عنہ ✓
- Hazrat Umar Farooq رضی اللہ تعالیٰ عنہ
- Hazrat Usman Ghani رضی اللہ تعالیٰ عنہ
- Hazrat Ali bin Abi Talib رضی اللہ تعالیٰ عنہ

5. The Muslims state extended the most during the time of:

- Hazrat Abu Bakr رضی اللہ تعالیٰ عنہ
- Hazrat Umar Farooq رضی اللہ تعالیٰ عنہ ✓
- Hazrat Usman Ghani رضی اللہ تعالیٰ عنہ
- Hazrat Ali bin Abi Talib رضی اللہ تعالیٰ عنہ

Answer the following questions briefly.

1. Give some examples of the hardships that Hazrat Muhammad Rasool Allah Khatim-an-nabiyeen صلی اللہ علیہ وسلم faced at the advent of Islam.

Ans: Hazrat Muhammad صلی اللہ علیہ وسلم and his companions faced a lot of hardships at the advent of Islam.

These hardships included Physical beating, social and

economic Boycott and many other atrocities.

2. Which revolutionary changes took place in Arabia in the 7th Century?

Ans: Due to efforts of the Rasulullah, صلی اللہ علیہ وسلم the darkness of Jahiliya in whole Arabia changed into brightness of faith. Before Islam, the Arab society was known for drinking, gambling, killing of innocent people and shamelessness. Rasulullah, صلی اللہ علیہ وسلم with divine guidance and unmatched character, changed the whole scenario. The whole Arabia was changed in political, religious, and social ways.

3. How was the challenge of poverty tackled by the Holy Prophet صلی اللہ علیہ وسلم in Madinah?

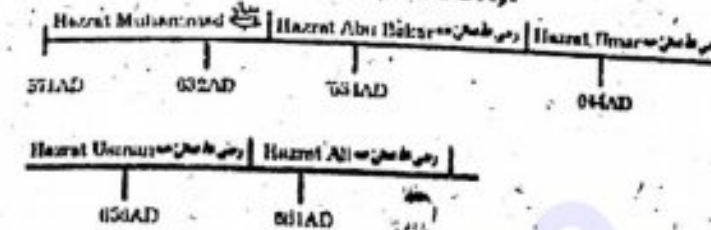
Ans: The first challenge for Rasulullah صلی اللہ علیہ وسلم was poverty of the believers. In order to rehabilitate the homeless Muhajireen in Madinah, and to integrate them into the economic and social life of the city, Rasulullah صلی اللہ علیہ وسلم made them "brothers" of the Ansaar. They made them live in their own houses and made them partners in their business and farming.

4. What did the Khulafa-e-Rashideen do to keep the spirit of Islam alive after Rasulullah صلی اللہ علیہ وسلم?

Ans: During the reigns of the first four caliphs (632-661), Islam

spread rapidly. As Islam removed differences on the basis of race, colour and nationality, people from many religions and cultures started embracing it. This unique feature of equality and justice helped spread the message of Islam.

5. Make a timeline to show rule of Khulafa-e-Rashideen.



Answer the following questions in detail.

1. Holy Prophet صلی اللہ علیہ وسلم was the greatest of the human beings. Justify your answer.

Ans: Early in life, Hazrat Muhammad Rasulullah Khatam ul Nabiyyeen, صلی اللہ علیہ وسلم built up a reputation for truthfulness and honesty. The people of Makkah Mukarrama would bring their cash, jewelry, and other valuables to him for safe-keeping, and whenever they wanted anything back, he returned it to them. They called him Sadiq (the truthful) and Amin (the trustworthy).

2. Evaluate the importance of Charter of Madinah.

Ans: There are total 63 articles in Charter of Madinah. This is also called one of the first written constitutions of history. The Constitution of Madinah is an example of finding solution to the problems in a peaceful manner. Here peace and pluralism were not achieved through military successes

but through respect and acceptance - aspects that reflect some of the basic tenets of Islam.

3. What lessons can be drawn from State of Madinah for a prosperous Pakistan?

Ans: The lessons that can be drawn from state of Madinah for a prosperous Pakistan are.

1. Fear of Allah.
2. Rule of Justice and Equality.
3. Welfare of people.
4. Devoted state Administration.
5. Responsible Bureaucracy.

GEOGRAPHY

Unit 1

Structure of Earth and Types of Rocks EXERCISE

Q1. Choose the correct option:

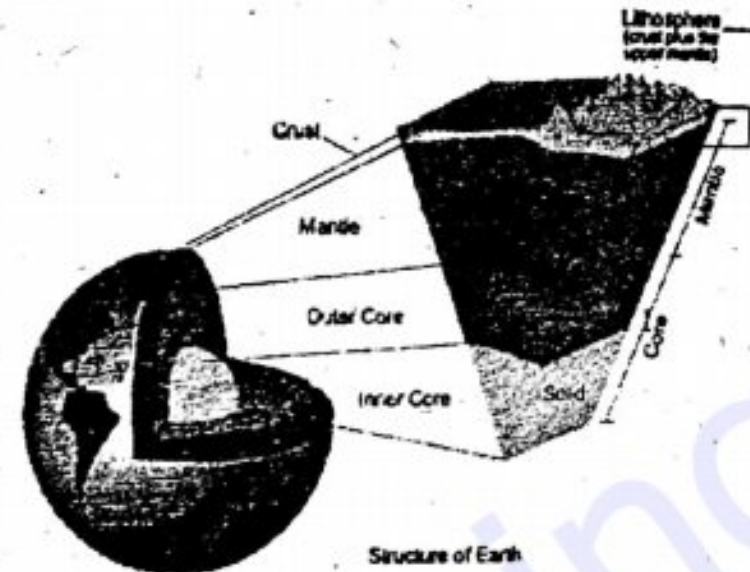
- The solid inner core is composed of iron and _____.
a. Copper b. Steel
c. Chromite d. Nickel✓
- Tectonic plates are floating over _____.
a. asthenosphere✓
b. lithosphere
c. hydrosphere d. biosphere
- Strata is the special characteristics of ____ rocks.
a. igneous b. metamorphic✓
c. sedimentary✓
d. intrusive
- The solid upper most mantle together with crust is known as:
a. asthenosphere
b. lithosphere✓
c. tectonic Plates
d. continents
- Tectonic Plate theory was presented in the year:
a. 1975 b. 1967✓
c. 1977 d. 1987
- The Northern areas and Azad Kashmir of Pakistan lie along the edge of the:
a. Indian Plate✓
b. Pacific Plates
c. African Plates

- Eurasian Plates
- Marble is a ____ rock.
a. sedimentary
b. metamorphic✓
c. igneous
d. intrusive
- The thinnest layer of the Earth is:
a. crust✓ b. mantle
c. core d. asthenosphere

Q2: Give brief answers to the following questions:

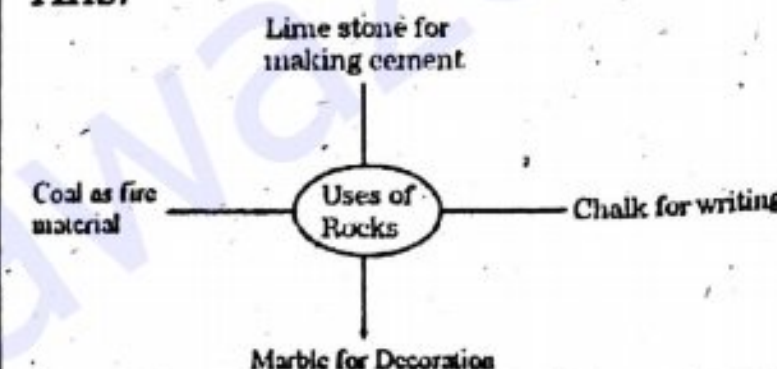
- Draw and label the internal structure of the Earth.

Ans:



- Draw a mind map for uses of rocks.

Ans:



- Why do you think Pakistan has a lot of Earthquakes?

Ans: Indo-Australian and Eurasia Plates are continuously moving

towards each other. This is the reason that Earthquakes continue to occur in Pakistan.

- Define rocks and minerals.

Ans:

- Rocks are made up of minerals.
- Minerals are made up of elements. There are 117 elements.

- Why do geographers use GIS?

Ans: GIS helps geographers in capturing, storing, checking and displaying information identified with location on Earth's surface.

Q3: Give detailed answers to the following questions:

- Explain theory of plate tectonic in detail.

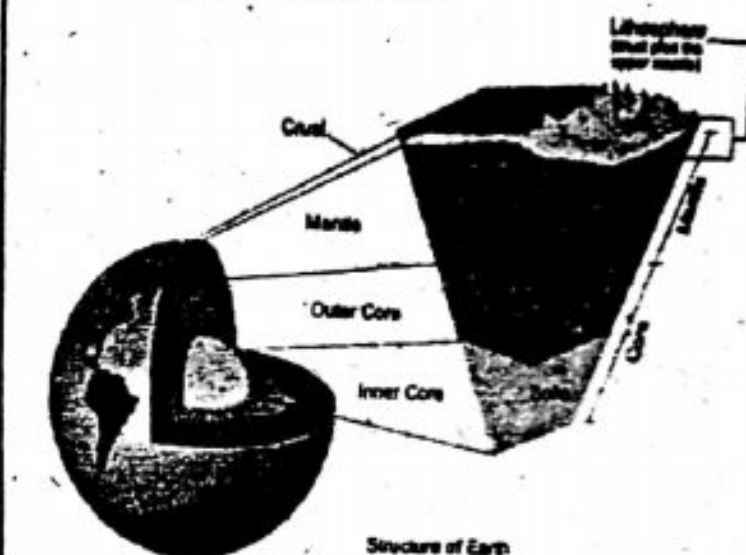
Ans: Plate tectonic theory was presented in 1967 by Mckenze and Parker. The Earth's outer most layer lithosphere is divided into large blocks. These blocks are called Lithospheric plates and are generally known as Tectonic plates. The word 'Tectonic' means movement, so tectonic plate means movement of lithospheric plates. These plates are floating over asthenosphere. The constant movement of hot molten rocks (similar to plastic) in asthenosphere is the main driving force behind the movement of tectonic plates. As a result of these movements, significant land forms are created at the plate boundaries.

- Classify different layers of Earth and draw a labeled diagram.

Ans: Earth is divided into three main geological layers on the basis of chemical compositions and structure.

- Crust:

Crust is the outermost solid layer of Earth, normally about 8-40 km thick. The major constituent elements of crust are Silica (Si), and Aluminium (Al).



- Mantle:

The second layer of Earth beyond the crust is mantle which is very hot and composed of dens rocks. The Mantle is about 2900 km thickness.

- Core:

It is further divided into two layers.

- The liquid outer core:

This layer is composed of nickel and iron in a liquefied form. The thickness of this layer is about 2250km.

- The inner solid core:

The layer is also composed of iron and nickel in solid state. The

solid inner core has a radius of 1220km.

3. Rocks play an important role in the economy of a region. Give reasons.

Ans: Rocks are very useful in our daily life. They are highly valuable and important for the economy of a country. Everything made by human beings start from rocks and minerals for example, salt, toothpaste, medicines, utensils, etc. Industries play an important role in a country's economic development and generate revenues for the government through taxes and exports.

Unit 2

Mountains, Plateaus and Valleys EXERCISE

Q1. Choose the correct option:

1. The natural features that make up the Earth's surface are called

- a. rivers b. glaciers
c. landforms✓ d. settlements

2. A plateau is sometimes called a

- a. table land✓ b. hills
c. mountains d. valley

3. Himalayas mountains range is an example of _____ mountain.

- a. fold✓ b. block
c. volcanic d. residual

4. Active volcanoes are usually found around _____ ocean.

- a. Atlantic b. Pacific✓

c. Indian d. Arctic
5. A 6-figure grid reference contains _____ which gives us precise location of a place.

- a. 2 numbers b. 4 numbers
c. 6 numbers✓ d. 8 numbers

6. V-shaped valleys are formed by

- a. rivers✓ b. glaciers
c. winds d. sea waves

7. U-shaped valleys are formed by

- a. winds b. sea waves
c. rivers d. glaciers✓

8. Great Rift valley is located in

- a. East Africa✓ b. Europe
c. Australia
d. North America

9. Mud volcanoes are located in some areas of _____

- a. Punjab b. Sindh
c. Balochistan✓
d. Khyber Pakhtunkhwa

10. Tibet plateau is an example of _____ plateau.

- a. Intermontane✓ b. piedmont
c. volcanic d. potohar

Q2: Give brief answers to the following questions:

1. What is a fold mountain?

Ans: Mountains that were built by the folding of rock layers due to colliding tectonic plates are called Fold Mountains. The Karakoram, the Himalayas, the Alps, the Rocky Mountains

and the Andes are ranges of Fold Mountains.

2. Explain the importance of mountains.

Ans:

- (i) Mountains are physical division between countries like China and Pakistan.
(ii) Many important rivers such as river Jhelum and Indus flow from Northern mountains.
(iii) These mountains are sources of valuable minerals; timber and fruits. They provide raw material to several industries such as furniture, chipboard and chemical industries.
(iv) Mountain peaks provide protection to Pakistan against the cold winds from Central Asia.
(v) Scenic beauty of the mountainous areas promote tourist resorts that are a source of income to local people during summer.

3. What is meant by volcanic mountain?

Ans: Volcanic mountains are conical mountains built by deposition of lava or pyroclastic materials around the vents of the volcanoes. Volcanoes located in plate interiors and near diverging plate boundaries are termed as Hot Spot Volcanoes.

4. Write names of the mountain ranges of Pakistan.

Ans: Karakoram, the Himalayas and the Hindu Kush are termed as Northern mountains of Pakistan. Safed Koh, Waziristan Hills, Koh e Sulaiman and Kirthar range are included in Western mountains of Pakistan.

5. Compare two characteristics of mountains and plateaus.

Ans: Mountains:

- > Rise at least 1000 meters above sea level.
- > At least 50% of its surface consists of steep slopes.

Plateaus:

- > Rise at least 300 meters above sea level.
- > Plateaus are table shaped lands.
- > The higher parts of the plateaus are more or less of the same height.

Q3: Give detailed answers to the following questions:

1. Name three types of plateaus and explain how they were formed. Give one example of each.

Ans: Plateaus are table shaped lands which rise at least 300 meters above sea level. The higher parts of the plateaus are more or less of the same height. A plateau is sometimes called a table land. There are different types of plateaus.

(i) Intermontane Plateaus:

Plateaus which are surrounded by mountains are

known as intermontane plateaus e.g., the Tibetan and Bolivian Plateaus etc.

(ii) Piedmont Plateaus:

Plateaus which are bounded by mountains on one side and by a plain or ocean on the other side are termed as Piedmont Plateaus e.g., the Plateau of Patagonia and Potowar Plateau etc.

(iii) Volcanic Plateaus:

When a volcano spreads successive sheets of molten lava over vast areas, volcanic plateaus are formed. The Deccan plateau of India is an example of a volcanic plateau.

2. What are different types of valleys? Explain any two of them.

Ans: Anticlines form mountains and synclines form valleys. The arch-like up folds become fold mountains and trough like down folds become valleys. These valleys acquire V or U shapes on account of the presence of rivers or glaciers.

(i) River Valleys:

V shaped valleys are associated with rivers. These are deep, narrow and long depressions lying between two slopes. They are formed by erosive action of the rivers or streams e.g. Swat, Kaghan, Chitral, Neelum and Jhelum valleys. Valleys in mountainous regions provide fruits, honey, and medicinal herbs of local and international markets.

Lush green valley's with scenic beauty promote tourist activity.

(ii) Glacial Valleys:

Valleys which are located in glacial environment develop a U shaped profile. U shaped valleys have steep sides and flat floor, that is the result of glacial erosion. Karakoram, Himalays and Hindukush ranges of Pakistan have many glacial valleys with glaciers such as Baltoro, Batura and Hispar glaciers in Karakoram, Rupal glacier in Himalaya and Tirich Mir Glacier in Hindukush.

3. What are the effects of physical environment on humans?

Ans: Physical environment provides resources and human beings utilize these resources and ensure their economic and cultural development.

- Mountains provide pastures, forests, tourist spots and are sources of rivers providing water to lowlands.
- Plains are utilized for agriculture.
- Plateaus provide forests and minerals.
- Climate influences our house types, clothing and food habits.
- The climate has profound effect on vegetation, cropping pattern, livestock farming and some industries, etc.

Unit 3 Climatic Regions of the World Exercise

Q1: Choose the correct option:

1. A Climatic region is also called a _____ region.
 - a. natural✓ b. artificial
 - c. cultural d. social
2. Tropical rainforest lies between _____ north and south Equator.
 - a. 5° - 10°✓ b. 10° - 20°
 - c. 20° - 30° d. 70° - 80°
3. Equator is _____ lies mid way between north and south poles.
 - a. 0°✓ b. 90°
 - c. 23½° d. 66½°
4. Elevation from sea level cause to _____ a temperature.
 - a. Increase b. decrease✓
 - c. remain same d. social
5. Continental areas have _____ temperature ranges.
 - a. greater b. lesser
 - c. normal✓ d. very low
6. There are _____ climatic zones on the surface of the Earth.
 - a. 2 b. 3✓ c. 4 d. 5
7. _____ experience weeks of continuous darkness.
 - a. Mediterranean b. Monsoon
 - c. Steppers d. Tundra✓
8. Major hot deserts of the world are located in _____ areas of continents.
 - a. Western b. Eastern
 - c. Northern d. Southern✓

9. Mediterranean climate has a _____ dry summer season.

- a. short✓ b. long
- c. very short d. very long

10. There are _____ climatic types located in tropical zone.

- a. 4 b. 3✓ c. 6 d. 8

Q2: Give brief answers to the following questions:

1. What is a climate region? Name the various climatic regions of the world.

Ans: A climatic region is a geographical area with similar characteristics of air temperature, air pressure, winds, and precipitation. It possesses distinct location, vegetation and economic activities of the people. A climatic region is also called a natural region.

Various climate regions are:

1. Climates of tropical zone.
 2. Climates of Middle-Latitudes.
 3. Climates of polar zone.
- 2. State location and vegetation of Hot Deserts.**

Ans: The major hot deserts of the world are located between latitudes 15° and 30° North and South of the Equator. They include the Sahara Desert (North Africa), Great Australian Desert (Australia), Arabian Desert (Saudi Arabia), Dasht-e-Lut (Iran), Thar Desert (Pakistan). Plants of hot deserts include the cacti, thorny bushes and acacias.

3. Give a brief account of the climate of steppes.

Ans: Steppes climate is continental as summers are hot and winters are cold. Rainfall is light in these grasslands and annual rainfall is generally between 375 mm and 625 mm.

4. What are the climatic characteristics of the Tundra regions?

Ans: Tundra experiences weeks of continuous darkness. The average annual temperature is -12°C . Summers are cool. Winters are very cold as temperatures drop to -40°C in this region. Precipitation is light and it takes place in the form of snow. Average annual precipitation is about 200 mm.

5. Enlist plant types of Mediterranean climate.

Ans: Vegetation of Mediterranean Climate:

Various kinds of coniferous trees such as pines, firs, cedars and cypresses are found in Mediterranean Climate. These trees are tall and evergreen. They have needle-shaped leaves and their trunks are straight.

6. Enlist the types of plants of Mediterranean climatic region.

Ans: Various kinds of coniferous trees such as pines, firs, cedars and cypresses are found in Mediterranean Climate. These trees are tall and evergreen. They

have needle-shaped leaves and their trunks are straight.

Q3. Give detailed answers to the following questions:

1. Describe climate and vegetation of Tropical Rainforest.

Ans: Climate of the tropical rainforest region is hot and humid. It is because of high temperature range of 24°C to 32°C throughout the year. The duration of day and night is almost equal, i.e., 12 hours day and 12 hours night. This climatic region receives abundant precipitation as rainfall occurs daily throughout the year. Rainfall ranges from 1500 to 2500 mm.

Vegetation of Tropical Rainforest:

Tropical rainforest consists of tall trees whose branches intermingle at the top to form a canopy. Canopy is formed to shields the lower layers of forest from severe sunlight, drying winds, and heavy rainfall, and to hold the moisture of the forest below.

2. Explain the factors that affect the climate of a region.

Ans: Factors that affect the climate of a Region:

(i) Latitude:

Latitude of a place reflects its distance from the equator. Equator is 0-degree latitude and it lies midway between North and South poles. Latitudes that are close to the equator receive higher amount of solar energy while the farther ones receive lesser amounts.

(ii) Maritime influences:

Maritime influences keep the coastal areas cool in summers and warm in winters. Therefore coastal areas remain moderate in summers and winters.

(iii) Distance from sea:

Areas that are farther from sea are not affected by the maritime influences, seasonally they become too cold or too warm resulting in greater temperature ranges.

(iv) Ocean Currents and Winds:

Ocean currents are channels of moving water in oceans. There are two types of ocean currents: warm currents and cold currents.

(v) Aspects of Slope:

The direction of the slope of a relief feature also influences the climate of a place e.g., sunward slopes have higher averages of temperatures than the slopes which are falling in shadow.

(vi) Altitude:

Altitude from sea level causes to reduce air temperature at the rate of 6.5°C for every 1000m. It means areas with higher altitudes from sea level are cooler and those at sea level are warmer.

3. Identify major climatic regions of Pakistan and explain any one in detail.

Ans: Pakistan has a sub-tropical location. Its surface is covered with a variety of relief features such as plains, plateaus, and mountains. It has a long coast line

in the south of it. All these factors influence the climates of Pakistan and resultantly four types of climatic regions have been developed here.

Let's discuss one in detail:

Tropical Coastland:

This region comprises of southern coastal strip including the Indus Delta, Karachi and the whole of Makran coast.

- The climate is characterized by sea breezes throughout the year. Due to the effect of sea, daily range of temperature is low.
- Temperature is moderate due to unequal heating and cooling of land and water.
- Mangroves are the dominating type of natural vegetation.
- Away from the city of Karachi and agricultural land of Indus Delta, many people are engaged in fishing.

Unit 4

**Forests of the World
EXERCISE**

Q1. Choose the correct option:

- 1. Amazon are the type of forest:**
- a. subtropical scrubbed forest
 - b. tropical thorn forest
 - c. tropical rainforest✓
 - d. coniferous forest

2. Tropical Rainforest grow in:

- a. 5 layers b. 4 layers✓
- c. 3 layers d. 2 layers

3. Forests of Pakistan cover an area of:

- a. 6.5% b. 7.5%
c. 4.5%✓ d. 3.6%

4. Agriculture is a human activity to grow:

- a. Trees b. crops✓
c. flowers d. grass

5. Which forests grow due to high temperatures and heavy rainfall throughout the year?

- a. Rainforest✓ b. Coniferous
c. Wood lands d. Mangroves

6. Desert vegetation is mostly found in the areas of:

- a. Scanty rainfall✓
b. Heavy rainfall
c. Moderate temperature
d. Low temperature

7. Coniferous trees grow in areas of Pakistan:

- a. Gilgit Baltistan✓
b. Sindh coast
c. Balochistan coast
d. Punjab plains

8. Mangroves are important source of:

- a. poultry b. fish✓
c. coal d. petroleum

Q2: Give brief answers to the following questions:

1. Highlight two benefits that forest provide for the environment.

Ans:

- Cinchona trees provide raw material for Quinine, a medicine to fight malaria.

- Source of many food items, vanilla, chocolate, nuts and coffee.

- Pulp of the trees is used to make paper.

- Rainforest is most important source of natural rubber.

2. What is the importance of mangrove forest?

Ans: These forests are also known as floating forests.

- They protect coast from strong waves and sea storm.

- They provide healthy feed for camels and livestock.

- They are breeding ground for small fish e.g prawns.

3. What are the commercial uses of forests?

Ans: Forests provide:

- Timber for construction, furniture and transport vehicles.

- Trees provide raw material for wooden ploughs and agricultural tools.

- Many trees provide fruit, nuts, vegetables, flowers and honey.

- Pakistani Mangoes, oranges, bananas, dates are in great demand in the international market for their taste and quality.

- Provide raw material for sports goods, chip board, hardboard and safety matches.

- Provide resin and gum, a raw material used of medicinal purposes.

4. Write three effects of deforestation.

Ans: It results in low rainfall, air pollution, global warming, flooding, water pollution, soil erosion and loss of habitat.

5. Why are irrigated forests important for Pakistan?

Ans: Irrigated forest are mostly grown along the road side to provide shade and check soil erosion. They are planted along the canals to check water logging and salinity and they are also grown as cluster. Change Manga near Labore in Punjab is a good example of irrigated forest. These types of parks help in the improvement of the environment.

Q3: Give detailed answers to the following questions:

1. Differentiate between natural vegetation and agriculture.

Ans: Natural vegetation means plants, trees and bushes that grow without human activity. It consists of a continuous area of woodland. The types of plants that grow in an area are directly affected by its relief, amount of rainfall and temperature.

Agriculture is human activity to grow crops, catch fish and keep cattle. Different types of crops are grown in Pakistan due to climate and relief in different parts of the country.

2. Why coniferous forests grow in the hilly areas of Pakistan?

Ans: In the northern mountains trees grow due to temperature below freezing and heavy rainfall. They are ever green have narrow, spiky leaves, Seeds in cones or berries, Usually found in cold climate.

They grow in Gilgit Baltistan, Abbotabad, Mansehra and Swat in Khyber Pakhtunkhwa. The main types of trees are spruce, Fir and Pine.

3. Compare the emergent layer of rainforest with the forest floor.

Ans:

Emergent Layer	Forest floor
The tallest trees grow in this layer. The trees have thick trunks and big leaves. The average height of these trees is about 200 feet. This layer receives the most sunshine. That is why the leaves face mostly the sun.	The floor of this forest is very dark. It receives little or no sunlight. It consists of fallen leaves that decay and provide nutrition for the other plants.

Unit 5 Natural Disasters Exercise

Q1: Choose the correct option:

1. A massive earthquake, damaged a widespread area across Pakistan in:

- October 2005✓
 - October 2006
 - October 2007
 - October 2008
2. Production of crops and livestock are severely affected by:
- rains
 - droughts✓
 - deforestation
 - over grazing
3. About 3 billion animals were effected during wild fires in 2020 in:
- Japan
 - Sri Lanka
 - Australia✓
 - Canada
4. 3Rs principle helps in _____ of natural resources:
- depletion
 - consuming
 - burning
 - saving✓
5. Which of the following country experienced forest fire at large scale?
- Japan
 - Sri Lanka
 - Australia✓
 - Canada
6. Which of the areas of Pakistan is more vulnerable to earthquakes?
- Potowar Plateau
 - Indus plain
 - Thal
 - Norhtern mountains✓
7. The biggest flood in Pakistan that damaged life and property occurred in.
- 2010✓
 - 2012
 - 2014
 - 2016
8. From 1994 to 2014 people were affected by natural disaster:

- 5.4 billion
 - 4.4 billion✓
 - 3.4 billion
 - 2.4 billion
9. In terms of economic losses, leading natural disasters in Pakistan are
- Floods✓
 - Land sliding
 - Earthquacks
 - cyclones

Q2: Give brief answers to the following questions:

1. What is a natural disaster?

Ans: A natural disaster is an unforeseen and sudden occurrence of an event resulting from natural processes of the Earth. Earthquake, tsunamis, volcanic eruption, cyclones, floods, droughts, landslides and forest fires are all forms of natural disasters.

2. Define global warming.

Ans: Global warming can be described as an increase in the average temperature of Earth atmosphere and ocean. The reason for melting of glaciers in the warming of oceans. This situation puts coastal areas and low lying islands at great risk.

3. What are the primary and secondary impacts of natural disasters?

Ans: Primary effects are the direct results of the natural disaster such as collapsed buildings, human casualties and destroyed infrastructure.

Secondary effects are indirect effects that appear later and are the results of primary effects such as power failure, spreading of a disease, fires from broken gas pipes and psychological damage etc.

4. How can we preserve natural resources by using recycled things?

Ans: Recycling means converting used materials into new products. It helps to save the natural resources.

If we recycle about a ton of paper, we will end up saving 17 trees.

5. What type of natural disasters are more common in Pakistan?

Ans: The natural disasters that are more common in Pakistan are:

1. Earthquakes
2. Floods
3. Droughts

Q3: Give detailed answers to the following questions:

1. Why are developing countries more affected by natural disasters than developed countries?

Ans: Developing countries are more affected by natural disasters due to many reasons:

1. Poverty:

In developing countries majority of people live in unsafe and dangerous location such as: riverbanks, steep slopes, flood plains and highly populated illegal

and substandard settlements. According to a research, every year natural disaster trap about 26 million people who are in extreme poverty.

2. Lack of resources:

Developing countries are not equipped with early warning systems. Their natural disaster management lack resources and training to withstand natural calamities.

3. Poor governance:

In developing countries, governments usually lack resources, planning and implementation. These countries are most likely to have buildings that are not built to withstand natural disasters. The supply of water, electricity, food and medicines in unreliable and may not be available for a long time after a disaster.

2. How can human activities contribute to natural disasters? Explain.

Ans: Natural disasters are usually thought as naturally occurring events that damage human life and infrastructure but sometimes they are not so natural. Human activities have been impacting the environment in a costly way. Today overpopulation, deforestation, growing settlements and consumption of fossil fuels have a direct impact on our environment and cause global warming. Rising temperature due

to global warming has affected weather patterns resulting in heat waves, cyclones, floods and forest fires.

3. What measures can be taken to reduce the impact of natural disasters?

Ans: Here are some ways that can reduce the impact of natural disaster.

Preparedness:

- Establishment of early warning systems for prediction of disasters like floods, storms and tsunamis.
- To conduct community awareness campaigns and mock drills and exercises to prepare people for disasters.

Response:

- Quick evacuation of people from affected areas.
- Provision of medical assistance and support on urgent bases.
- Use of modern technology to fast track relief effects.

Rehabilitation and Recovery:

- Restoration of basic temporary facilities e.g. clean water, food and shelter.
- To seek cooperation and expertise from developed countries and international aid agencies for rehabilitation of people.

Prevention and Mitigation:

- Improvement in infrastructure such as bridges, roads, dams

and levee banks to reduce the impacts of flooding.

- Strict Government policy on land use planning and building design that can reduce risks from natural hazards.

Unit 6 Changing Earth and Human Activities Exercise

Q1: Choose the correct option:

1. Physical weathering is also known as _____ weathering.
 - a. organic
 - b. biological
 - c. mechanical✓
 - d. chemical
2. _____ of the world's population lives in urban areas.
 - a. 25%
 - b. 56.2%✓
 - c. 76.8%
 - d. 80%
3. _____ in the rocks chemically react with water, oxygen and carbon dioxide.
 - a. Gases
 - b. Minerals✓
 - c. Plants
 - d. Bones
4. Wind erosion usually occurs in _____ areas.
 - a. wet
 - b. humid
 - c. dry✓
 - d. coastal
5. _____ are the main cause of coastal erosion.
 - a. Waves✓
 - b. Glaciers
 - c. Winds
 - d. Movements of earth
6. The grand Canyon is an example of _____ erosion.
 - a. wind
 - b. Water✓

c. glacial d. mass wasting
7. Glacial erosion only occurs in _____ areas.

- a. hot
- b. cold✓
- c. moderate
- d. temperate

8. In coastal erosion, waves _____ the rocks.

- a. weaken✓
- b. strengthen
- c. enlarge
- d. shorten

9. A sea _____ is a natural bridge.

- a. cave
- b. arch✓
- c. stack
- d. cliff

10. _____ prevents the erosion and help in soil conservation.

- a. Trees✓
- b. Agriculture
- c. Overgrazing
- d. Urbanization

Q2: Give brief answers to the following questions:

1. How is weathering different from erosion?

Ans: Weathering is the breaking down of rocks into smaller pieces on the surface of the Earth, while.

Erosion is the moving or shifting of smaller pieces of broken rocks by natural forces such as wind, moving water, and glaciers.

2. What are the main causes of mass wasting?

Ans: Mass wasting may occur due to earthquake, heavy rain, removal of vegetation and over-steepening of slopes.

3. What are the best ways to prevent soil erosion?

Ans: Soil erosion can be prevented by the following techniques:

- Planting trees on large scale along the edges of fields (afforestation).
- Restrict overgrazing.
- Terrace farming methods in hilly areas.
- Retaining walls should be built to check soil erosion.
- Mines should be built according to international standards to avoid roof collapse.

4. Identify the processes involved in coastal erosion.

Ans: The following four process of coastal erosion are constantly changing the coastal landforms:

- (i) Hydraulic action
- (ii) Attrition
- (iii) Abrasion
- (iv) Solution

5. Give names of at least four landforms associated with coastal erosion.

Ans: The four coastal landforms formed by erosion are cliffs, caves, arches and stacks.

Q3: Give detailed answers to the following questions:

1. How do wind, water and glacier cause erosion? Discuss in detail.

Ans: (i) Wind Erosion:

Wind erosion involves the movement of dust, sand and soil from one place to another. Wind erosion occurs commonly in dry and plain areas.

(ii) Water Erosion:

Fast running water (rain, rivers, streams and sea waves), is the most significant agent of erosion. As the water flows, it cuts into the soil and rocks, thus it plays its role in wearing down and forming different landforms. The Grand Canyon of the Colorado River is a good example of water erosion.

(iii) Glacial Erosion:

Just like wind and water, glaciers are active agents of erosion. Glacial erosion only occurs in cold areas. Over time glacial movements change the landscape, carving out valleys, forming lakes and wearing down mountain's tops.

2. Define weathering and explain the difference between physical and chemical weathering.

Ans: Weathering is the breaking down of rocks into smaller pieces on the surface of the Earth.

(i) Physical weathering (Mechanical Weathering)

In physical weathering, large masses of rocks are broken down into smaller pieces without a chemical change. It is also known as mechanical weathering. For instance, water gets into the cracks of rocks and freezes and then expands due to temperature change and causes the rocks to break.

(ii) Chemical Weathering:

In chemical weathering, composition of rocks changes. Minerals in the rocks chemically react with water, oxygen and carbon dioxide and transform into new substances. It is also known as rock decomposition. Majority of the world's caves have been formed by this process.

3. How do human activities affect erosion?

Ans: Human activities are changing the shape of the surface of the Earth.

(i) Deforestation:

Deforestation is perhaps the main cause of soil erosion. Deforestation refers to decrease in areas of forests by cutting down the trees. People cut trees for agriculture, fuel and industry.

(ii) Agriculture:

Agriculture is one of the most important human activity that accelerates soil erosion. It is also one of the oldest professions of man. Soil loses its valuable and fertile topsoil during farming practices such as tilling or ploughing and harvesting.

(iii) Industrialization:

The industry is another human activity that causes soil erosion. Soil erosion starts when humans remove vegetation to build different means of transport and develop proper infrastructure for industries.

Computer Education

Unit 1

ICT FUNDAMENTALS

EXERCISE

Q1. Multiple choice questions:

1. Which device is used to forward data from one network to another and selects best route?

- a. Network switch
- b. Router ✓
- c. Bluetooth
- d. Wireless Access Point

2. Identify the device through which data and instructions are entered into the computer:

- a. Input device ✓
- b. Output device
- c. Processing device
- d. Memory

3. Which of the following stores more data?

- a. CD
- b. DVD
- c. Blu-ray disk
- d. Hard disk ✓

4. Display Screen is also known as:

- a. VDU ✓
- b. CCTV
- c. DVD
- d. HDD

5. The printed output from a computer is:

- a. Paper
- b. Carbon copy
- c. Soft copy
- d. Hard copy ✓

6. The device used for authentication is:

- a. Microphone
- b. Biometric ✓
- c. Switch
- d. Multimedia

7. Which of the following group comprises only of communication devices?

- a. Keyboard, Router, Flash memory
- b. Switch, Router, Modem ✓
- c. Printer, Memory card, Bluetooth
- d. System board, Flash memory, WiFi

Q2: Short response questions:

1. Define ICT.

Ans: ICT stands for information and communication technology. It is define as diverse set of technological tools and resources that are used to creat, store, manage and communicate information.

2. Differentiate between data and information with example.

Ans: Data is the raw fact and figures that need to be processed into information. Data may be in text, numbers or symbolic form.

Information: when data is processed it becomes information. It is organized form of data.

Example:

The name of people are entered into computer as data the computer process it and prints the names in organized form.

3. Write down ICT applications in industries.

Ans: In industries different ICT devices are used for production and control. The best example is Robots which are widely used in industries.

4. Compare system software and application software with example.

Ans: System Software:

It controls and manages the Computer Hardware operating system, Device driver etc. are system software examples.

Application Software:

It helps the users to perform a specific tasks word processing, Excel, Games are application software.

5. Differentiate between input and output devices.

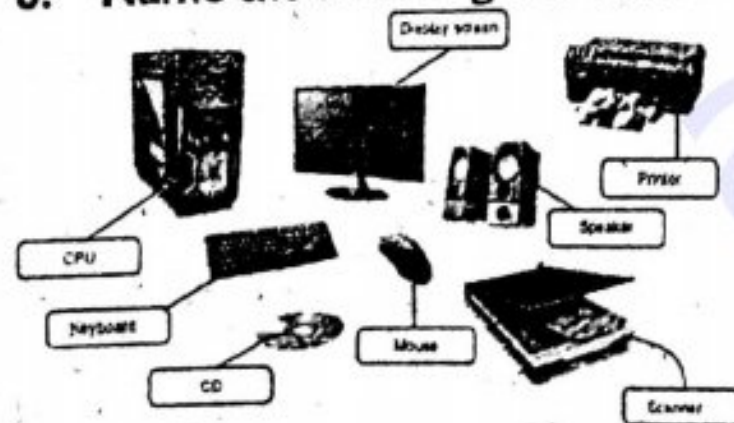
Ans: Input Devices:

Input devices are used to enter data and instruction into computer, for example Keyboard, mouse, scanner etc.

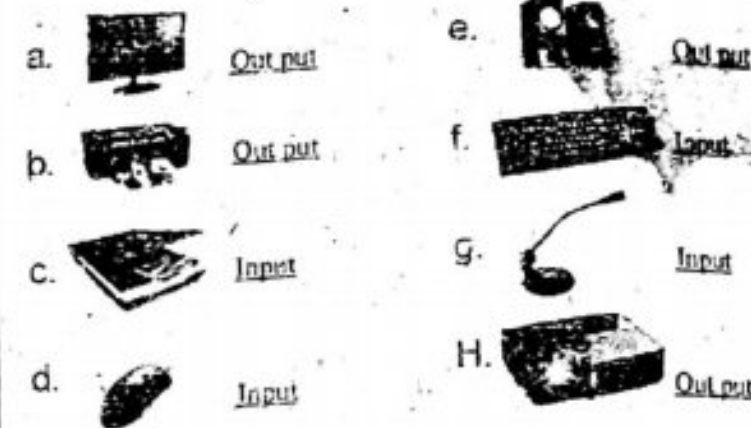
Output Devices:

Output devices give results of processed data for example display screen (LCD, Monitor) Printer etc.

6. Name the following ICT devices.



7. Identify and Input or OUTPUT device.



8. Write functions of the following devices:

- Printer
- Biometric Device
- Digital Camera
- Smart Phone
- Speaker
- Router

Ans: a. Printer

Printer is used to get hard copy of documents photos on paper.

- b. Biometric Device:

It is used for verifying or recognizing the identity of living person with the help of finger prints face recognition or voice recognition.

- c. Digital Camera:

It is used to take Photo or videos that can be stored in computer.

- d. Smart Phone:

A device which perform many function such that connection to cellular network, searching information (Internet). Camera function etc.

- e. Speaker:

Speaker are used to listen audio from computer video.

- f) Router:

A network device that forward data from one network to another and select best route.

Unit 2 Digital Skills EXERCISE

Q1. Multiple choice questions:

- The window which is currently in use is:
 - Actual
 - Active✓
 - Dynamic
 - Live
- The process of moving from one window to another is:
 - Changing
 - Switching✓
 - Shifting
 - Transferring
- To move data from one place to another, the following commands will be used:
 - Cut, Paste✓
 - Copy, Paste
 - File, Open
 - Delete, Paste
- The following tool of paint 3D is used to copy:
 - Sticker Tool
 - Clone Stamp Tool✓
 - Crop Tool
 - Curve Tool
- With ____ tool the size of the canvas can be changed.
 - Marker
 - Canvas✓
 - Eraser
 - Crayon
- The already created 3D models can be located in _____.
 - Canvas
 - Camera

- c. Creativity d. 3D Library✓

7. It is NOT the component of task bar:

- Notification area
- Start menu
- Open programs
- Home tab✓

8. Anti Virus is an example of:

- Application Software
- Utility Program✓
- Device Driver
- Operating System

9. A software which is developed to help the user to perform specific task is called:

- Operating system
- Entertainment software
- Gaming Software
- Application Software✓

10. A software that is used by teachers and students to support and enhance teaching and learning activities is called:

- System Software
- Educational Software✓
- Desktop Publishing
- Operating System

Q2: Short response questions:

1. Define Operating System. List different examples of Operating System.

Ans: Operating system is a system software. It is an interface between the Computer and user and the components of computer.

Window 7, 8, 10, MS Dos, MACOS, OS, Linux are the examples of operating system.

2. **What is utility program? Give two examples.**

Ans: Utility program also called service program. It perform specific tasks related to management of computer, functions, resources or files Managing files, protecting Password, memory management etc are utility programs.

3. **Differentiate between file and folder.**

Ans: File:

Data and information like text, Photo, music track, presentation or video stored in computer is called file. A file has a name and extension.

Folder:

A folder is a way to organize files on the storage device. A folder can also contain sub-folder. Folder have a name only.

4. **Write down steps to create a shortcut of Microsoft Word application on desktop.**

Ans: Step 1:

Right click on desktop

Step 2:

Select New from the menu.

Step 3:

Select Microsoft word document.

Step 4:

Enter the name if you want proper name to it.

Step 5:

Press enter or Double click to open the program.

5. **Write down the steps to restore a deleted file.**

Ans: Step 1:

Double click on Recycle Bin icon on desktop list of deleted item will show there.

Step 2:

Right click on file which you want to restore, and select on restore option from the menu.

6. **Define application software and list three types of application software.**

Ans: A software which developed to help the user to perform a specific task is called application software.

Types of Application Software.

- Entertainment software
- Productivity software
- Educational and Reference software.

7. **Write down the steps to create a folder.**

Ans: Step 1:

Navigate where you want to create folder.

Step 2:

Right click anywhere

Step 3:

Select New from menu.

Step 4:

Click on folder from sub-menu.

Step 5:

Give a name to it and press enter.

8. **List any 5 brushes tools available in Paint 3D.**

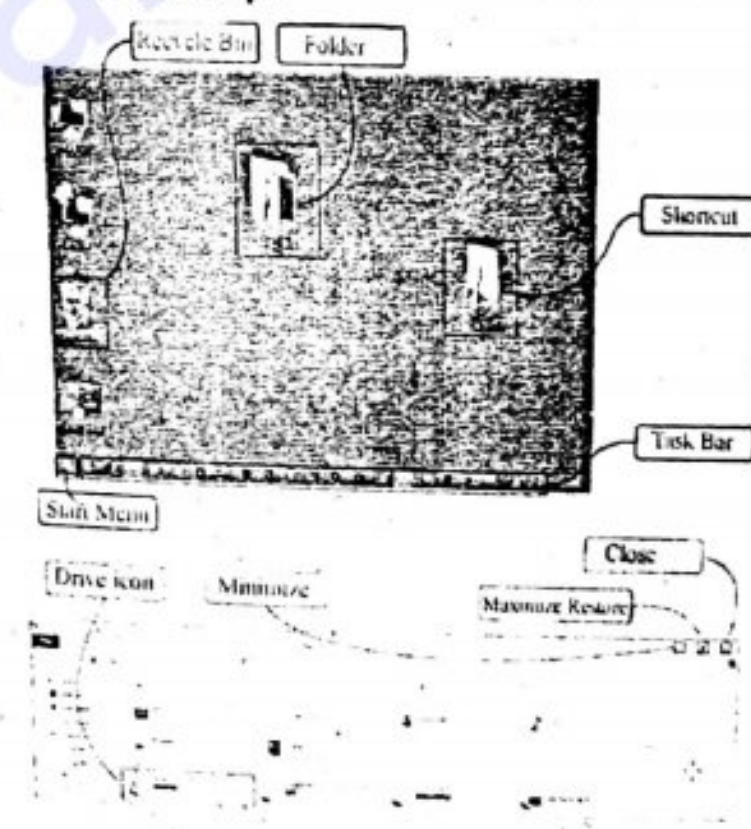
Ans: Brush tools in paint 3D

- Thickness
- Capacity
- Material
- Eyedropper
- Current color
- Add color

9. **Write down the purpose of crop tool.**

Ans: Crop tools is used to create a new canvas size and delete unwanted details of an object.

10. **Label the components of Desktop:**



Unit 3 Algorithmic Thinking and Problem Solving EXERCISE

Q1. Multiple choice questions:

1. **The proposed solution to be implemented should be:**

- a. Alternative
- b. Ideal ✓
- c. Feedback
- d. Decomposed

2. **Facts of a problem are identified from**

- a. Problem definition ✓
- b. Potential solution
- c. ideal solution
- d. Condition statement

3. **Potential solutions are evaluated based on their**

- a. Advantages
- b. Disadvantages
- c. Constraints ✓
- d. Input

4. **The act of doing one thing again and again refers to**

- a. Sequence
- b. Condition
- c. Repetition ✓
- d. Situation

5. **Ideal solution among the potential solutions is to be selected as.**

- a. First option ✓
- b. Second option
- c. Third option
- d. Last option

6. **It is the process used to evaluate the implemented solution.**

- a. Decomposition
b. Feedback✓
c. Brainstorming
d. Analysing
7. Algorithmic steps are to be followed in _____
- a. Defined order✓
b. random order
c. depends upon scenario
d. reverse order

Q2: Sort response questions:

1. Write down the algorithm to solve the following problems:

- Making cup of tea
- Going to school
- Find area of rectangle

Ans: Making cup of tea:

Step 1:

Take water and boil it.

Step 2:

Add sugar tea and milk

Step 3:

Keep boiling

Step 4:

Take a taste. If no appropriate taste go to (step 2) and add something needed.

Step 5:

Tea is ready.

Going to School:

Step 1:

Get ready to wear uniform.

Step 2:

Start moving to school direction.

Step 3:

Follow the shortest path.

Step 4:

Keep moving slow or fast according to your time.

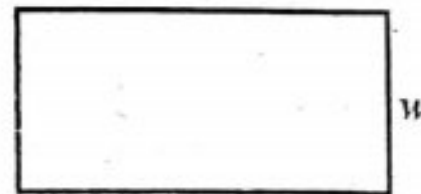
Step 5:

You reached the school.

Find area of Rectangle

Step 1:

Find length and width of rectangle i.e. $\ell \times w$



A geometrical shape having four sides and opposite sides are equal. $A = \ell \times w$

Step 2:

Multiply ℓ and w $A = \ell \times w$

Step 3:

Area found

2. Differentiate between a potential solution and an ideal solution.

Ans: Potential solution are all possible solutions of a problem.

Ideal solution is the most optimal and accurate solution selected among potential solution.

3. Develop your own conditionals statement.

Ans: (1) Conditional Statement if it is sunny day and summer season then today is hot day.

(2) If eagle, crow have wings then all birds have wings.

4. Write two examples of repetition from the real world.

Ans: Example 1:

To make table of 2 upto 20 multiple.

Multiply 2 with 1

Multiply 2 with 2

Repeat upto 10.

Example 2:

To turn on a light Go to a room and reach to the buttons.

Push a button and observe the situation if the light is ON then stop.

If not ON then push next button repeat the step so that the light becomes ON.

5. Interpret conditional statement and repetition in the following situation.

Situation:

Ali wakes up at 7 o'clock gets ready for school and leaves at 8 o'clock for school. He comes back at 2 o'clock takes some rest and performs other activities. At 4 o'clock he daily goes to the playground for an hour. However, during rainy days he cannot go out for playing.

Repetition:

He goes to school and come back daily. Take rest and perform other activities daily.

Conditional statement:

He goes to play ground for play but during rainy he cannot go for playing.

Unit 4 Programming EXERCISE

Q1. Multiple choice questions:

1. The computer program interacts with user via _____

- a. Input✓
b. Output
c. Process
d. Software

2. Background is selected from _____ of the screen.

- a. Upper Right Corner
b. Bottom Right Corner✓
c. Upper Left Corner
d. Bottom Left Corner

3. To move the Pico sprite 10 spaces to the left from top-right corner of the Stage, _____ block will be used.

- a. Change x by 10
b. set x to 10
c. set x to -10
d. change x by -10✓

4. Program is written at _____

- a. Design Time
b. Planning Time
c. Implementation Time✓
d. Analysis Time

5. _____ is the actual working space where you can drag and drop Code Blocks that are to be executed.

- a. Block Palette
b. Backdrop
c. Programming Area✓
d. Stage

Q2: Short response questions

1. What is programming language.
List few programming languages.

Ans: Language which is used to solve a problem is called programming language.

OR

Language used to interact with computer is called programming language. These languages are used to write a Computer program.

Python, HTML, C++, Java etc are some programming languages.

2. Interpret the meaning of different colors of Code Blocks in Scratch.

Ans: The color of script is same as that of the category, this way it is easier to understand what purpose a particular code block fulfills.

Motion have blue colors scripts, events have orange colors scripts, looks have purple color scripts. Sensing have light blue color script.

3. How do you create a loop in Scratch?

Ans: Loop is used to perform an action again and again repeat, repeat until and forever are different loops. In scratch loops are selected from events category and different action can be set to it from block category.

4. List down the components of Scratch interface.

Ans: The following are scratch interface components.

Load Tutorials
Code blocks
Programming Area
Background
Stage
Block categories
Block palette
Tutorial
Sprite
Sprite properties

5. What is the output of the following block-of-code:

Ans: The output will be as:

- The sprite will move in xy direction.
- Will move upto 5 seconds
- Wait at end 0.5 second.
- After 0.5 seconds sprite will move backward in xy direction.
- The sprite action will be repeated again and again forever (infinite).

Unit 5

Digital Citizenship Exercise

Q1: Multiple choice questions:

1. Copying someone else's work and presenting it as your own is known as:

- a. Copyright
- b. Identity theft
- c. Digital plagiarism✓
- d. Cyberbullying

2. Threatening or targeting a person with the use of digital technology is known as:

- a. Cyber security
- b. Online activity
- c. Cyber ethics
- d. Cyberbullying✓

3. To demonstrate the concept of gravity, a science teacher shows her class a video clip from YouTube. It is an example of:

- a. Copyright infringement
- b. Fair use✓
- c. Unfair use
- d. Unethical use

4. Ali figured out his teacher's password to unlock his electronic grade-book. What is the ethically correct thing for him to do?

- a. Tell the teacher so he may change it.✓
- b. Give the password to all the other students
- c. Use the password to change his grades.
- d. Keep it to himself

5. Which of the following is NOT safe while using the Internet?

- a. Homework research
 - b. Online shopping
 - c. Arranging to meet a stranger✓
 - d. Chatting with school friends
6. You have been getting nasty text messages from someone, what should you do?
- a. Send nasty emails back
 - b. Cry and feel sorry for yourself
 - c. Tell your teacher, parent or another adult
 - d. Do nothing, just ignore it✓

Q2: Short response questions:

1. Define cybercrime.

Ans: The use of technology, social network for criminals, hack and track password, through infected files is called cybercrime.

2. What is the importance of ICT security?

Ans: ICT security is important to someone can use the computer in safe and right way with damaging or violating.

3. What is meant by information privacy?

Ans: To keep personal information secret is known as information privacy.

4. Describe why computer users should follow the moral guidelines of computer ethics.

Ans: The objective of ICT ethics are to ensure the privacy and safety of the computer users

and help the people to use the computer in right way.

5. Why do you think Cyber ethics are more important nowadays.

Ans: Cyber ethics are more important to prevent the illegal use of ICT. To make a safe and secure society.

Unit 6

**Entrepreneurship in Digital Age
EXERCISE**

Q1. Multiple choice questions:

1. Which of the following is not a type of entrepreneurs?

- a. Home-based
- b. Internet-based
- c. Intrapreneurship✓
- d. Innovators

2. The process of creating something new is called:

- a. Creative flexibility
- b. Management
- c. Business
- d. Innovation✓

3. Which of the following factor provide growth in business?

- a. Workers b. Technology
- c. Business idea✓
- d. Lack of Security

4. A _____ is the type of entrepreneur who takes someone else's idea and tries to shape it into his final product.

- a. Home-based
- b. Imitator✓
- c. Internet-based

d. Innovators

Q2: Short response questions.

1. What is meant by Entrepreneurship?

Ans: It is the process of setting up a new business.

2. Explain why internet-based entrepreneurship provides rapid opportunity to grow as compared to home-based entrepreneurship?

Ans: Because in internet-based entrepreneurship, He/she can communicate with his/her customer through a variety of channels such as social media email chats etc.

3. List down two advantages and two disadvantages of imitating entrepreneur.

Ans: Advantages:

- (i) Easy to refine a business idea.
- (ii) Can compare the performance with the original idea.

Disadvantages:

- (i) They have to do a lot of work.
- (ii) They may face disappointment and rejection.

4. Differentiate between traditional entrepreneurship and digital entrepreneurship.

Ans: Traditional entrepreneurship is a local business which offer its products or service to its local customers.

Digital entrepreneurship is a business in which products are sold online.

5. Explain the process of starting a new business for an entrepreneur.

Ans: The following steps involves in entrepreneurial process.

(1) Discovery:

He comes up with new idea.

(2) Developing business idea:

Entrepreneur develops a business plan to meet the expectations of customer.

(3) Resourcing:

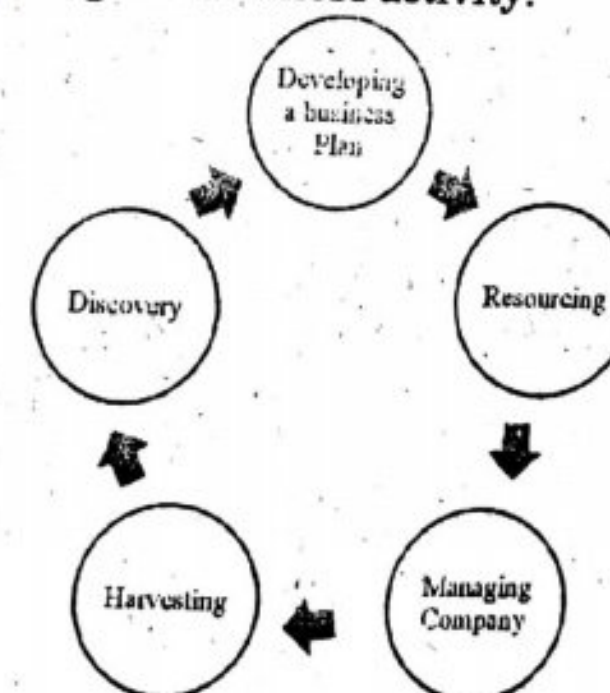
Arrangement of fund and other resources to start a new business.

(4) Managing Company:

Set up an organization manufacture the products and services.

(5) Harvesting:

Sell the products in the market and earn revenue to grow business activity.



Entrepreneurial Process