



INDIAN SCHOOL DARSAIT

DEPARTMENT OF SOCIAL SCIENCE



Subject : Geography	CHPT.3. DRAINAGE	Date of Notes : 12-05-2019
Resource Person: Mr.S.Gopalakrishnan		Date _____
Name of the Student : _____	Class & Division :IX _____	Roll Number : _____

Sl. No	Answer the following :	Ma rks												
1.	<p>What is a river system? A river along with its tributaries is known as a River System or a Drainage system. Ex. Ganga River System, Indus River System etc.</p>	1												
2.	<p>What is a catchment area? The part of the upper course of the river, near the source, from where the tributaries collect water is termed as Catchment Area.</p>	1												
3.	<p>What is a river pattern? Name any four patterns formed by the rivers.</p> <ul style="list-style-type: none"> • The streams within a drainage basin form certain patterns, depending on the slope of land, underlying rock structure as well as the climatic conditions of the area. • The form, in which a stream is seen, is known as a river pattern. • The four patterns formed by the rivers are i). Dendritic ii). Radial iii). Trellis and iv). Rectangular 	3												
4.	<p>Define the following:</p> <p>a. Drainage Pattern The pattern formed by a river in a drainage basin depending upon the slope of land, rock structure and also climatic condition is referred to as Drainage Pattern.</p> <p>b. Perennial Rivers Perennial rivers are those which have water throughout the year. These rivers receive water from rain as well as from melted snow of the mountains. Ex. Ganga, Indus, Brahamaputra.</p> <p>c. Seasonal Rivers Seasonal rivers are those which are dependent upon rainfall for their flow. During the dry season, even the large rivers have reduced the flow of water. Ex. Peninsular Rivers like Mahanadi, Godavari, Narmada etc.</p>	3												
5.	<p>Discuss the significant differences between the Himalayan and Peninsular rivers.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;"></th> <th style="width: 45%;">Himalayan Rivers</th> <th style="width: 50%;">Peninsular Rivers</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">I</td> <td>They are perennial rivers, getting water from both rain and melting glaciers.</td> <td>They are non-perennial rivers and almost dries up in summer.</td> </tr> <tr> <td style="text-align: center;">ii</td> <td>They have long courses from their source to sea.</td> <td>They have shorter courses and are shallow.</td> </tr> <tr> <td style="text-align: center;">iii</td> <td>They undergo severe erosional activity in the upper courses and bring sand and silt. They form meanders, flood plain and deltas and oxbow lakes in middle</td> <td>These rivers flow on hard undulating igneous and metamorphic rocks, making waterfalls but middle courses are very short.</td> </tr> </tbody> </table>		Himalayan Rivers	Peninsular Rivers	I	They are perennial rivers, getting water from both rain and melting glaciers.	They are non-perennial rivers and almost dries up in summer.	ii	They have long courses from their source to sea.	They have shorter courses and are shallow.	iii	They undergo severe erosional activity in the upper courses and bring sand and silt. They form meanders, flood plain and deltas and oxbow lakes in middle	These rivers flow on hard undulating igneous and metamorphic rocks, making waterfalls but middle courses are very short.	5
	Himalayan Rivers	Peninsular Rivers												
I	They are perennial rivers, getting water from both rain and melting glaciers.	They are non-perennial rivers and almost dries up in summer.												
ii	They have long courses from their source to sea.	They have shorter courses and are shallow.												
iii	They undergo severe erosional activity in the upper courses and bring sand and silt. They form meanders, flood plain and deltas and oxbow lakes in middle	These rivers flow on hard undulating igneous and metamorphic rocks, making waterfalls but middle courses are very short.												



INDIAN SCHOOL DARSAIT
DEPARTMENT OF SOCIAL SCIENCE



	and lower courses.										
	Iv Canals have been dug to use the water of these rivers or irrigation	As the terrain is rocky and the banks of these rivers are high and canals cannot be dug. However, dams are built to store the flood water for irrigation using small channels.									
	V The major Himalayan rivers are the Indus, the Ganga and the Brahmaputra.	The major Peninsular rivers are the Mahanadi, the Godavari, the Krishna, the Kaveri, the Narmada and the Tapi									
6.	<p style="text-align: center;">Identify the pictures shown below and write a comparison of the features.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="display: flex; justify-content: space-around;">A. A DELTA B. An ESTUARY</p> <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th style="width: 50%;">Delta</th> <th style="width: 50%;">Estuary</th> </tr> </thead> <tbody> <tr> <td>It is a triangular – shaped piece of land formed at the mouth of a river, where it meets the sea.</td> <td>It is an inlet formed generally by the submergence of the mouth of a river.</td> </tr> <tr> <td>With the continuous deposition of silt on its bed, a river goes on splitting itself into channels or distributaries. They carry river water into the sea.</td> <td>It has a single mouth or channel. It has steep banks or slopes. Where an estuary is formed, sea is deep.</td> </tr> <tr> <td>The world’s largest and the fastest growing delta is the Ganga-Brahmaputra delta known as the Sunderban delta. Peninsular rivers like the Mahanadi, Godavari, Krishna and Kaveri also form big deltas.</td> <td>The mouths of rivers Narmada and Tapi present good examples of estuaries.</td> </tr> </tbody> </table>		Delta	Estuary	It is a triangular – shaped piece of land formed at the mouth of a river, where it meets the sea.	It is an inlet formed generally by the submergence of the mouth of a river.	With the continuous deposition of silt on its bed, a river goes on splitting itself into channels or distributaries. They carry river water into the sea.	It has a single mouth or channel. It has steep banks or slopes. Where an estuary is formed, sea is deep.	The world’s largest and the fastest growing delta is the Ganga-Brahmaputra delta known as the Sunderban delta. Peninsular rivers like the Mahanadi, Godavari, Krishna and Kaveri also form big deltas.	The mouths of rivers Narmada and Tapi present good examples of estuaries.	5
Delta	Estuary										
It is a triangular – shaped piece of land formed at the mouth of a river, where it meets the sea.	It is an inlet formed generally by the submergence of the mouth of a river.										
With the continuous deposition of silt on its bed, a river goes on splitting itself into channels or distributaries. They carry river water into the sea.	It has a single mouth or channel. It has steep banks or slopes. Where an estuary is formed, sea is deep.										
The world’s largest and the fastest growing delta is the Ganga-Brahmaputra delta known as the Sunderban delta. Peninsular rivers like the Mahanadi, Godavari, Krishna and Kaveri also form big deltas.	The mouths of rivers Narmada and Tapi present good examples of estuaries.										
7.	<p>Where does river Narmada originate from? Name any two picturesque locations formed by it.</p> <ul style="list-style-type: none"> • The Narmada river rises from the Amarkantak hills in Madhya Pradesh. It flows towards the West in a rift valley formed due to faulting. • Picturesque locations are Marble rocks near Jabalpur where Narmada flows through a deep gorge. • Dhuadhar falls, where the river plunges over steep rocks. 		3								
8.	<p>Differentiate between Narmada and Tapi Basin</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Narmada Basin</td> <td style="width: 50%;">Tapi Basin</td> </tr> </table>		Narmada Basin	Tapi Basin	3						
Narmada Basin	Tapi Basin										



INDIAN SCHOOL DARSAIT
DEPARTMENT OF SOCIAL SCIENCE



	1	Narmada river rises in the Amarkantak hills in Madhya Pradesh.	The Tapi rises in the Satpura ranges, in the Betul district of Madhya Pradesh.		
	2	It is very long and it flows west and joins Arabian Sea.	It is very short in length as compared to Narmada River.		
	3	It covers parts of Madhya Pradesh, Gujarat and Maharashtra.	It covers parts of Madhya Pradesh, Gujarat and Maharashtra.		
9.		Why does the Brahmaputra in its Tibetan part have less silt, despite a longer course? ➤ In Tibet, the river carries a smaller volume of water and less silt as it is a cold and a dry area. (Rain shadow region of Himalayas) ➤ Therefore, Brahmaputra in its upper course in the Tibetan part have less silt, despite a longer course. ➤ BUT when the river enters India, the volume of water increases due to the tributaries adding to it, high rainfall and melting snow and therefore creates floods.			3
10.		Why river Godavari is often referred to as ‘Dakshin Ganga’? 1. Since river Ganga and Godavari are carrying similar characteristics, therefore, river Godavari is often referred to as ‘Dakshin Ganga’. 2. As river Ganga is the largest river of India with the largest drainage basin, similarly Godavari is the largest river of peninsular India with the largest drainage basin. 3. River Godavari and Ganga have the similar religious sentiments of the people attached to it.			3
11.		Write a note on the Indus river system. <ul style="list-style-type: none">• The river Indus originates in Tibet; near Lake Mansarowar. It enters India in the Ladakh district of Jammu & Kashmir.• Zaskar, Nubra, Shyok and Hunza are the main tributaries which join the Indus in Kashmir region.• After flowing through Baltistan and Gilgit, the Indus emerges from the mountains at Attock, and enters the plains.• Sutlej, Beas, Ravi, Chenab and Jhelum join together and enter the Indus near Mithankot in Pakistan.• After that, the Indus flows southwards and finally reaches the Arabian Sea, east of Karachi. Indus is 2900 km long.• The Indus plain has a very gentle slope. A little over one-third of the Indus basin is located in India. The rest lies in Pakistan.			5
12.		Write a note on river Brahmaputra. <ul style="list-style-type: none">• The Brahmaputra rises in Tibet; east of Mansarowarlake. and is a little longer than river Indus.• Most of the course of the Brahmaputra lies outside India, known as Tsangpo and flows eastwards parallel to the Himalayas. (to the north of the Himalayas).• After reaching NamchaBarwa, it takes a "U" turn and enters India in Arunachal Pradesh. In this region the river is known as Dihang.			5



INDIAN SCHOOL DARSAIT DEPARTMENT OF SOCIAL SCIENCE



	<ul style="list-style-type: none">• It is joined by Dibang, and Lohit, and is called the Brahmaputra in Assam.• Majuli (in Assam) is the largest riverine island in the world. The island had a total area of 1,250 square kms.• Brahmaputra gets huge deposits of silt on its bed, resulting in frequent floods.• River Brahmaputra is known by different names in different regions: (Tsangpo in Tibet, Brahmaputra in India & Jamuna in Bangladesh).	
13.	<p>Classify lakes of India in three categories ? Give suitable examples.</p> <p>India has many lakes. They differ in size and other characteristics. Most lakes are permanent, where as some contain water only during rainy season. There are lakes which are formed by the action of glaciers and icesheets, while the others have been formed by human activities.</p> <ul style="list-style-type: none">➤ Fresh Water lakes: Most of these are in the Himalayan region. They are of glacier origin. They are formed when glaciers dug out a basin, which was later filled with snow melt. The Wularlake in Jammu and Kashmir is the largest fresh water lake in India. Other fresh water lakes are the Dal, Bhimtal, Nainital, Loktak and Barapani.➤ Salt Water lakes: Spit and bars form lagoons or salt water lakes in the coastal areas like the Chilikalake, Pulicatlake and the Kolleru lake. Sometimes salt water lakes are formed with inland drainage like Sambhar lake in Rajasthan. Its water is used for producing salt.➤ Man-made lakes: The damming of the rivers for the generation of hydel power has also led to the formation of lakes. These lakes are formed to drain excessive water of the river during floods and adding water to the rivers during the dry season. Such lakes are the Guru GobindSagar(Bhakra Nangal Project), NizamSagar, NagarjunaSagar, Rana PratapSagar etc.	5
14.	<p>How are rivers useful to man?</p> <p>Water is an essential resource for survival and growth of all living organisms.</p> <ul style="list-style-type: none">✓ Rivers provided ideal conditions for the early man to lead a settled life. Rivers provided fertile plains, fertile soil and water.✓ Water from the rivers is available for drinking and irrigation. Man could also supplement his food supply with the fish in the river.✓ Rivers also serve as natural waterways. World's earliest human civilization developed in the river valleys, e.g., Harappan civilization in the Indus valley, Nile valley civilizations in Egypt.✓ River's flood plains form the world's best agricultural lands. The river flood plains are among the most densely populated parts in the world.	5