Social Science

Grade IX - Geography

Lesson 3.Drainage

Solved Question Bank

I. Multiple Choice Questions

1. Which of the following lakes differ from the rest in the group?

a. Dal Lake
b. Nainital Lake
c. The Guru Gobind Sagar Lake
d. Bhimtal Lake

2. Which of the following statements about the river Narmada is not coorect?

a. It flows through a rift valley.
b. It flows through a gorge near Jabalpur.
c. It plunges over steep rocks a Dhaundhar falls.
d. Its tributaries are the Tungabhadra and Musi.

3. Through which of the two states does the river Kaveri pass through?

a. Kerala and Karnataka
b. Karnataka and Tamil Nadu
c. Kerala and Tamil Nadu
d. Andhra Pradesh and Tamil Nadu

4. Which place is located on the water divide between the Indus and the Ganga river system?

a. Ambala
b. Nainital
c. Haridwar
d. Ranikhet

5. Which of the following is the saline water lake?

a. Sambhar
b. Dal
c. Wular
d. Barapan

6. Which one is a major river of Tamil Nadu?

a. Narmada
b. Kaveri
c. Tapti
d. Indus

7. The Dibang and the Lohit are the tributaries of the river

a. Mahanadi
b. Narmada
c. Godavari
d. Brahmaputra

8. Zaskar, the Nubra, the Shyok and the Hunza are the tributaries of river _____.

a. Ganga
b. Brahmaputra
c. Indus
d. Godavari

1. (c)	2. (d)	3. (a)	4. (a)	5. (a)	6. (b)	7. (d)	8. (a)

I. Fill in the Blanks

9. The River _____ makes the second biggest waterfall in India.

10. _____ is known as 'Dakshin Ganga'.

11. The river Indus rises in _____, near lake Mansarowar.

9. Kaveri	10. Godavari	11. Tibet

I. True or False

12. Most of the Himalayan Rivers are perennial in nature.

13. The Ghaghra is the longest tributary of Ganga.

14. Brahmaputra is called Tsangpo in Tibet.

12. True	13. False	14. True

I. Match the columns

15. Match the columns.

Column A	Column B
a. Headwaters of the Ganga	i. Tapi
b. Largest peninsular river	ii. Mahanadi
c. Rises in the Satpura ranges	iii. Bhagirathi
d. Rises in the highlands of Chhattisgarh	iv. Dal Lake
e. Kashmir	v. Godavari

a. (iii)	b. (v)	c. (i)	d. (ii)	e. (iv)

Very Short Answer Type Questions

1. What is a river/drainage basin?

A river/drainage basin is an area drained by a single river system.

2. What is a watershed?

An upland/highland area that separates two drainage basin systems.

3. Which river has the largest basin in India?

River Ganga has the largest basin in India.

4. In which two major groups Indian rivers are divided into?

The Indian rivers are divided into:

a. The Himalayan rivers

b. The Peninsular rivers

5. What is a perennial river?

Perennial rivers have water throughout the year. These rivers get water from rain and snow e.g. River Ganga.

6. What is a gorge?

A gorge is a deep narrow channel created by a flowing river.

7. What do Himalayan rivers do in their upper course?

The Himalayan rivers perform intensive erosional activity in their upper course and carry huge loads of sit and sand.

8. Why are peninsular rivers called seasonal?

The peninsular rivers are called seasonal because their flow depends upon rainfall. Even large rivers like the Narmada have less water during the dry season.

9. Where do most of the peninsular rivers originate? Where do they flow?

Most of the peninsular rivers originate from the Western Ghats and they flow into the Bay of Bengal.

10. Name three main Himalayan river systems.

The three main Himalayan river systems are the Indus system, the Ganga system and the Brahmaputra system.

11. Mention any two features of the Himalayan rivers.

The two features of the Himalayan rivers are:

a. The Himalayan rivers are long.

b. They are joined by many large and important tributaries.

12. What is a river system?

A rivers alongwith its tributaries is called a river system.

13. Where does the Indus river originate?

The Indus river originates in Tibet, near lake Mansarowar.

14. Name the tributaries which join Indus river in Kashmir.

The Zaskar, the Nubra, the Hunza and the Shyok are the tributaries which join Indus river in Kashmir.

15. Which are the main tributaries of Rivers Indus?

The Satluj, the River, the Beas, the Chenab and the Jhelum are the main tributaries of River Indus.

16. In which sea River Indus falls into?

River Indus flows into the Arabian Sea.

17. What is the total length of River Indus?

The total length of river Indus is 2900 km.

18. Write the regulations mentioned in Indus Water Treaty of 1960?

According to the regulations of the Indus Water Treaty of 1960, India can use only 20% of the total water carried by the Indus river system.

19. From which place does the River Ganga originate?

The headwaters of the Ganga called the Bhagirathi is fed by Gangotri Glacier and joined by Alaknanda at Devaprayag in Uttarakhand.

20. Name the main tributaries of River Ganga.

The Yamuna, the Ghaghara, the Gandak and the Kosi are the main tributaries of River Ganga.

21. From which place does Yamuna river originate?

River Yamuna originates from Yamunotri glacier. Being a right bank tributary of Ganga river. It joins Ganga river at Allahabad.

22. Mention the journey/river drainage of River Yamuna.

Starting from the Yamunotri glacier, it flows parallel to the Ganga and as a right bank tributary, meets the Ganga at Allahabad.

23. Which rivers rise from Nepal Himalayas?

The Ghaghara, the Gandak and the Kosi rise in the Nepal Himalayas.

24. Mention the distinguished features about the Ghaghara, the Gandak and the Kosi river.

a. These rivers flood the northern plains every year.

b. They enrich the soil for agricultural use.

25. Which tributaries join Ganga from peninsular uplands?

The Chambal, the Betwa and the Son join the Ganga from the peninsular uplands.

26. What is the main feature of the tributaries of Ganga joining from the peninsula?

These tributaries rise from semi-arid areas with shorter courses and do not carry much water.

27. What is the *Namami Gange Programme?*

It is an Integrated Conservation Mission approved as a 'flagship programme' by the Union Government in June 2014.

28. List the twin objectives of *Namami Gange Programme.*

Abatement of pollution, conservation and rejuvenation of the national river Ganga.

29. Where is the northernmost point of the Ganga delta?

The northernmost point of the Ganga delta is in Farakka, West Bengal.

30. Where did Ganga river named as Meghna?

After joining Brahamputra river, Ganga river named as Meghna.

31. How is Sundarban delta formed?

The waters of two very big rivers i.e. the Ganga and the Brahmaputra flows into the Bay of Bengal and the delta formed by these rivers is known as Sundarban delta. It is the world's largest and fastest growing delta.

32. How is the Sundarban delta named?

The Sundarban delta gets its name from the Sundari trees which grow very well in the marshland and does not get rot in water.

33. What is the total length of the River Gnaga?

The total length of the River Ganga is over 2500 km.

34. Which place is located on water divide of river Ganga and river Indus?

Plains of Ambala are located on water divide of the Ganga and Indus river.

35. How does River Gnaga forms large meanders?

The plains from Ambala to the Sunderban stretch over nearly 1800 km, but the fall in its slope is hardly 300 metres there is a fall of one metre for every 6 km. Thus the river develops large meanders.

36. From where does Brahmaputra river originate?

The Brahmaputra river originates in Tibet, east of Mansarowar lake very close to the sources of the Indus and the Satluj.

37. From where Brahmaputra river enters India?

On reaching the Namcha Barwa (7757m), it takes a U-turn and enters India in Arunachal Pradesh through gorge.

38. When did Brahmaputra river known as Dihang?

When Brahmaputra river enters India, it is known as Dihang.

39. What is Brahmaputra called in Tibet and Bangladesh?

Brahmaputra called as Tsang Po in Tibet and Jamuna in Bangladesh.

40. Why does River Brahmaputra carry less water and silt in Tibet?

In Tibet, River Brahmaputra carry less water and silt as it is a dry and cold area.

41. Give one feature of River Brahmaputra.

The Brahmaputra river is a braided channel in its entire length in Assam and forms many riverine islands. E.g. Majuli in Brahmaputra, is the largest inhabited riverine island in the world.

42. Mention the cause behind widespread devastation caused by Brahmaputra river.

Due to floods in Assam and Bangladesh during rainy season, every year Brahmaputra river overflows its banks and cause widespread devastation.

43. How is Brahmaputra river different from other north Indian rivers?

Unlike other north Indian rivers, the Brahmaputra river got huge deposits of silt on its bed which results in rising of river bed. The river also shifts its channel frequently.

44. Name the main water divide in Peninsular India.

The main water divide in Peninsular India is formed by the Western Ghats.

45. Name the major peninsular rivers of India.

The Mahanadi, the Godavari, the Krishna and the Kaveri are the major peninsular rivers in India.

46. Mention some picturesque location of Narmada river when the Narmada river flows through.

The Marbel rocks near Jabalpur and the Dhuadhar falls from picturesque location.

47. Name the scheme undertaken by the government of Madhya Pradesh for the Narmada river conservation mission.

Namami Devi Narmade.

48. In which Indian states Narmada basin formed?

Narmada basin formed in Madhya Pradesh and Gujarat.

49. Where does the River Tapi rises?

The River Tapi rises in Satpura ranges in the Betul district of Madhya Pradesh.

50. Name the Indian states which covers parts of Tapi basin.

Madhya Pradesh, Gujarat and Maharashtra are the states which covers the Tapi basin.

51. Why coastal rivers are short in length?

Coastal rivers are short in length because the coastal plains between the Western Ghats and the Arabian Sea are very narrow.

52. Name the major west-flowing rivers of the Western Ghats.

Sabarmati, Mahi, Bharathpuzha and Periyar are the major west flowing rivers of the Western Ghats.

53. Which is the largest Peninsular river?

River Godavari is the largest Peninsular river.

54. Where does the River Godavari rise?

The River Godavari rises from the slopes of the Western Ghats in the Nasik district of Maharashtra.

55. Which drainage basin largest among Peninsular rivers?

Godavari drainage basin is largest among the Peninsular rivers.

56. Name the tributaries of River Godavari.

The Purna, the Wardha, the Pranhita, the Manjra, the Wainganga and he Penganga are the tributaries of River Godavari.

57. From where does the Mahanadi river rises?

Mahanadi river rises in the highlands of Chhattisgarh.

58. Write the total length of Mahanadi river? Which Indian states have Mahanadi river basin?

The total length of rivers is 860 km. Maharashtra, Chhattisgarh, Jharkhand and Odisha have Mahandi river basin.

59. From which region River Krishna rises?

River Krsihna rises from a spring near Mahabaleshwar.

60. Mention the length of Krishna river. In which waterbody it falls into?

The total length of Krishna river is 1400 km and it falls into the Bay of Bengal.

61. Name the major tributaries of River Krishna.

The Tungabhadra, the Koyana, the Ghatprabha, the Musi and the Bhima are the major tributaries of River Krishna.

62. Which Indian states share the basin of Krishna river?

Maharashtra, Karnataka and Andhra Pradesh are the Indian states which shared the Krishna basin.

63. Write the main tributaries of Kaveri river. Also mention its total length.

Kaveri basin's main tributaries are Amravati. Bhavani, Hemavati and Kabini. Its total length is 760 km.

64. Name the Indian states which have Kaveri basin.

Karnataka, Kerala and Tamil Nadu have the Kaveri basin.

65. Name the second biggest waterfall in India which is made by River Kaveri.

The second biggest waterfall in India which is made by River Kaveri is Jog Falls, it is used to generate hydroelectricity.

66. Mention the composition of water on earth's surface.

71% of the earth's surface is covered with water. 97% of it is salt water and only 3% is in the form of fresh water in rivers, lakes, ponds, glaciers and ice caps.

67. How are oxbow lakes formed?

A meandering river cuts across the narrow neck of the meander forming an oxbow lake.

68. How lakes become seasonal?

Lakes in the region of inland drainage are sometime seasonal. E.g. Sambhar lake of Rajasthan.

69. What are fresh water lakes?

Fresh water lakes are mostly found in the Himalayan region. These are usually formed by a glacier and get filled with water by melting snow.

70. Name some fresh water lakes of India.

The Wular, Dal, Bhimtal, Nainital, Loktak and Barapani are some fresh water lakes.

71. How are man-made lakes fromed?

Man-made lakes are formed when the rivers are used for generation of hydro-electricity by constructing a dam across a river. e.g. Guru Gobind Sagar lake (Bhakra Nangal Dam Project).

72. Give the full form of GAP & NRCP.

GAP is Ganga Action Plan and NRCP is National River Conservation Plan.

73. When was the Ganga Action Plan launched?

1985.

74. Under which plan the Ganga Action Plan was expanded to cover other rivers in 1995?

National River Conservation Plan.

75. What is the objective of the NRCP?

To improve the water quality of the rivers through the implementation of population abatement work.

Short Answer Type Questions

1. Explain any three features of Peninsular rivers.

The three features of the Peninsular rivers are:

a. A large number of peninsular rivers are seasonal as they are dependent on rainfall.

b. They are short and shallow courses.

c. Most of the peninsular rivers originate from the Western Ghats and flow into the Bay of Bengal.

d. The drainage basin of Peninsular rivers are small in size.

2. Why are Peninsular rivers seasonal in nature? State any three reasons.

The three reasons are as follows:

a. The Peninsular rivers are dependent on rainfall unlike the Himalayan rivers are snowfed.

b. The hills of the peninsular plateau are not snow-bound unlike Himalayas.

c. These rivers follow smaller course and have small basins which influence water volume.

d. The catchment areas (the area where the river gets maximum water either by rain/snow) of peninsular rivers are small in comparison to Himalayan rivers.

3. Which two rivers form the largest delta? Write any two features of this delta.

River Ganga and River Brahmaputra from the largest delta i.e. the Sundarban delta.

The two features of this delta are:

a. It is the largest and fastest growing delta in the world.

b. It gets its name as Sundarban from the Sundari tree. It is the home of the Royal Bengal tiger.

4. Compare a delta and an Estuary.

Delta	Estuary
a. It is a triangular-shaped alluvial landmass formed at the mouth of the river.	a. Deep funnel-shaped valleys at the mouth of a river where the sea water and the river water meets. It is free from any deposits.
b. Delta is formed in regions of low tides by a dense network of distributaries in the coastal	b. Estuaries are formed in areas of high tides and rift valleys.
c. The delta areas have fertile soils which get renewed annually. e.g. Sundarban delta in India and Bangladesh.	c. These are the best fishing grounds of the world. e.g. Estuaries of the Narmada and Tapi river.

5. Explain the concept of water divide with special reference for Ganga and Indus river systems. Name the major distributary of river Ganga.

a. A water divide is a highland area/an upland/mountain which separates two drainage basins.

b. Ambala is located on the water divide between the Indus and the Ganga river system.

c. The distributary of River Ganga is Hooghly.

6. Why are most of the Peninsular river draining into the Bay of Bengal? Give two reasons. Name two rivers draining into the Arabian Sea.

I. Most of the Peninsular rivers drain into the Bay of Bengal because of the following reasons:

a. The Eastern Ghats are lower than the Western Ghats and are also discontinuous thus making it easier for the rivers to reach the Bay of Bengal.

b. The Deccan Plateau has a gentle slope towards the east. Thus, the rivers drain towards the east.

II. Two rivers draining into the Arabian Sea are the Narmada and the Tapi.

7. Describe three important features of the Tapi basin.

The important features of Tapi basin are:

a. The Tapi river rises in the Satpura ranges in the Betul district of Madhya Pradesh.

b. It also flows through a rift valley parallel to the Narmada but much shorter in length.

c. Its basin covers parts of Madhya Pradesh Gujarat and Maharashtra.

8. Why are the rivers of Western Coast very short?

The rivers of West Coast of India are very short because:

a. The coastal plains between Western Ghats and the Arabian Sea are very narrow.

b. The course of these rivers are short as they do not have much water and drain small area of the states.

c. These rivers are seasonal in nature.

Examples of these rivers are Sabarmati that drains parts of Rajasthan and Gujarat; Mahi-Madhya Pradesh, Rajasthan, Gujarat; Periyar-Kerala, Bharathpuzha-Kerala.

9. Describe any three important features of the Mahanadi basin.

The three important features of Mahanadi basin are;

a. Mahanadi basin covers parts of the states of Chhattisgarh, Jharkhand, Odisha and Maharashtra.

b. It rises in the highlands of Chhattisgarh and flows through Odisha to form a delta in the Bay of Bengal. It's length is 860 km.

c. Due to the devastating floods that the river causes every year, the Hirakud dam has been built on it.

10. What is the difference between a Tributary and Distributary?

Tributary	Distributary
a. A small stream which joins the main river.	a. A branch of main river which leaves the main river before it reaches the sea.
b. It adds water to the main river.	b. It takes away the water of the main river and adds it to the sea.
c. Main river gains water and becomes an active agent of gradation.	c. The river becomes sluggish when the distributary leaves it.
d. e.g. Yamuna, Ghaghara, Gandak and Kosi are tributaries of Ganga river.	d. e.g. Hooghly is a distributary of Ganga.

11. From where does the River Krishna originate? Name its tributaries. Mention the names of the states covered by it.

a. The River Krishna rises from a spring near Mahabaleshwar.

b. Its tributaries are the Tungabhadra, the Koyana, the Ghatprabha, the Musi and the Bhima.

c. The states covered by Krishna river are Maharashtra, Karnataka and Andhra Pradesh.

12. (a) How are the Fresh Water lakes formed in the Himalayas? Give two examples of fresh water lakes in this region.

b. How is the Sambhar lake useful?

a. (i) Most of the fresh water lakes are in the Himalayan region are of glacial origin i.e. they are formed when a glacier digs out a basin that is later filled with water from snow melt or rain. Some examples of fresh water lakes are Bhimtal, Nainital, Dal lake etc.

ii. India's largest fresh water lake is Wular Lake which is an exception as it was formed by tectonic activity.

b. Sambhar lake in Rajasthan is a rich source of salt in India.

Long Answer Type Questions

1. Write main features of River Indus under the following headings:

a. Source **b. Tributaries** **c. Areas drained**

d. Extent of Indus Plain **e. Indus Water Treaty.**

The main features of River Indus as an important river of the Himalayas are:

a. **Source:** Indus river rises in Tibet, near lake Mansarowar. While flowing towards west it enters India in the Ladakh district of Jammu and Kashmir by forming a picturesque gorge.

b. **Tributaries:** Several tributaries like the Zaskar, the Nubra, the Shyok and the Hunza join it in the Kashmir region. Other major tributaries are the Satluj, the Beas, the Ravi, the Chenab and the Jhelum join together and form Indus at Mithankot in Pakistan.

c. **Area drained by river Indus:** The Indus flows southwards eventually reaching the Arabian Sea east of Karachi areas. This is where Indus river end but not the total area drained.

d. **Extent of the Indus Plain:** The Indus plain has a gentle slope. It covers the states of Jammu and Kashmir, Himachal Pradesh and Punjab.

e. **Indus Water Treaty (1960):** According to the regulation of this treaty, India can use only 20% of the total water carried by Indus river system. The water is used for irrigation in Punjab, Haryana and southern and western parts of Rajasthan.

2. Give main characteristic features of the Ganga river system.

The main characteristic features of the Ganga river system are:

a. The Ganga rises in Gangotri Glacier in Uttarakhand. Its headstream Bhagirathi joined by the Alaknanda at Deveprayag in Uttarakhand.

b. At Haridawr, the river Ganga comes out from the mountains to the plains.

c. Its tributaries like the Yamuna, the Gandak, the Ghaghara, the Kosi flood parts of northern plains every year, causing widespread damage to life and property but the flood enriches the soil naturally. The soil is most suitable for intensive cultivation.

d. The main tributaries that join Ganga river from peninsular India are the Chambal, the Betwa and the Son.

e. The Ganga continues to flow eastwards after addition of water by its tributaries till Farakka in West Bengal. It then enters Bangladesh and joined Brahamputra and known as stream Meghna which flows into the Bay of Bengal. Here, it forms the Sundarban delta, which is the largest delta of the world.

3. Give characteristic features of the Ganga-Brahmaputra delta.

The characteristic features of the Ganga-Brahmaputra delta are:

a. The Ganga-Brahmaputra delta is also known as Ganga delta of West Bengal (India).

b. It is situated in Bangladesh (southern parts) and in the state of West Bengal (India).

c. It is the world's largest and fastest growing delta.

d. The mainstream of Ganga river flows southwards into Bangladesh and is joined by the Brahmaputra river resulting in the formation of a delta.

e. Sundarban delta derived its name from Sundari trees which does not rot in stagnant water.

f. It is also the home of Royal Bengal tigers.

4. Give the main characteristic features of mighty Brahmaputra river.

The main characteristics features of Brahmaputra river are;

a. Its **source** lies in Tibet, east of Mansarowar lake very close to the sources of the Indus and the Satluj. It is slightly longer than the Indus and most of its course lies outside India.

b. The river **carries less silt and smaller volume of water** in Tibet as it is a cold and dry area.

c. Brahmaputra river passes through a **region of high rainfall** in India. Hence, the river carries large volume of water and considerable amount of silt.

d. The Brahmaputra has a **braided channel** in its entire length in Assam and forms many riverine islands. For example, **Majuli island** is the largest inhabited riverine island in the world.

e. Unlike other rivers of north India, river Brahmaputra is marked by huge deposits of silt on its bed causing the river bed to rise. The river also **shifts its channel frequently**. Every

year during the rainy season the river overflows its banks causing **widespread devastation due to floods** in Assam and Bangladesh.

5. Enlist the characteristic features of the Godavari basin.

The characteristic features of the Godavari basin are as follows:

a. It is the largest river basin of the Peninsular rivers.

b. It rises in the Nasik district of Maharashtra and joins the Bay of Bengal in Andhra Pradesh.

c. The Godavari river basin covers the states of Maharashtra, Madhya Pradesh, Odisha and Andhra Pradesh (50% of this basin covers the state of Maharashtra).

d. The Godavari is often referred to Dakshin Ganga because of its largest size and extent.

e. The important tributaries of River Godavari are: the Purna, the Wardha, the Pranhita, the Manjra, the Wainganga and the Penganga.

6. What is meant by drainage? Explain any four benefits of rivers.

a. Drainage means river system of an area.

b. The four benefits of rivers are:

i. The rivers provide water, the basin natural resource essential for various human activities.

ii. The banks of the rivers have always attracted settlers from ancient times. These settlements are now big cities.

iii. River waters are used for irrigation, navigation, hydro-electric power generation special significance.

iv. Rivers are very significant for countries like India where agriculture is the livelihood of the majority of the population.

7. What are the causes of river pollution? How can it be prevented?

River pollution are caused by the following ways.

a. Rivers are polluted by domestic, municipal, industrial and agricultural waste. This affects the quality of water.

b. Large amount of untreated sewage are dumped into the rivers. This affects the self cleansing capacity of water.

c. Increasing pollution by urbanisation to river pollution which has increased to very high levels.

River pollution can be prevented by:

a. Treatment of industrial and urban waste before it is dumped into the rivers.

b. Sensitising the people about pollution of rivers and difficulties in cleaning water.

c. Various action plans like Ganga Action Plan to clean up River Gnaga.

d. Emphasising on the technologies used to reduce river pollution by promoting recycling of water, improvement of water quality.