Q.1) Consider the following.

- 1. Himalayas
- 2. Peninsular Plateau
- 3. North Indian Plains

Arrange the following in chronological order of their formations.

- a) 1-3-2
- b) 2-1-3
- c) 2-3-1
- d) 3-2-1

Q.1) Solution (b)

The oldest landmass, (**the Peninsula part**), was a part of the **Gondwana land**. The Gondwana land included India, Australia, South Africa, South America and Antarctica as one single land mass.

The northward drift of **Peninsular India** resulted in the collision of the plate with the much larger **Eurasian Plate**. Due to this collision, the sedimentary rocks which were accumulated in the geosyncline known as the *Tethys* were folded to form the mountain system of western Asia and **Himalayas**.

The Himalayan uplift out of the Tethys Sea and subsidence of the northern flank of the peninsular plateau resulted in **the formation of a large basin**. In due course of time this depression, gradually got filled with deposition of sediments by the rivers flowing from the mountains in the north and the peninsular plateau in the south. A flat land of extensive **alluvial deposits led to the formation of the northern plains of India**.

Do you know?

• Geologically, the Peninsular Plateau constitutes one of the ancient landmasses on the earth's surface. It was supposed to be one of the most stable land blocks.

THINK!

• Eastern and Western Ghats

Q.2) Consider the following statements about Northwestern Himalayas.

- 1. The world-famous valley of Kashmir lies between the Karakoram Range and Ladakh Range.
- 2. The Kashmir Himalayas are also famous for Karewa formations.
- 3. Chenab in the valley of Kashmir is still in its youth stage and yet forms meanders.

Which of the above statements is/are correct?

- a) 1 and 2 only
- b) 2 only
- c) 1 and 3 only
- d) All the above.

Q.2) Solution (b)

Between the Great Himalayas and the Pir Panjal range, lies the world-famous valley of Kashmir and the famous Dal Lake.

The Kashmir Himalayas are also famous for Karewa formations, which are useful for the cultivation of Zafran, a local variety of saffron.

Srinagar, capital city of the state of Jammu and Kashmir is located on the **banks of Jhelum River**. Dal Lake in Srinagar presents an interesting physical feature. **Jhelum in the valley of Kashmir is still in its youth stage** and yet forms meanders – a typical feature associated with the mature stage in the evolution of fluvial land form.

Do you know?

• Karewas are the thick deposits of glacial clay and other materials embedded with moraines.

THINK!

• Molassis Basin.

Q.3) Tors, block mountains, rift valleys, spurs, bare rocky structures, series of hummocky hills and wall-like quartzite dykes are some of the important physiographic features of which of the following region?

- a) Purvanchal Hill Complex.
- b) Peninsular plateau.
- c) North Indian Plains.
- d) Indian Deserts.

Q.3) Solution (b)

Some of the important physiographic features of peninsular plateau region are tors, block mountains, rift valleys, spurs, bare rocky structures, series of hummocky hills and wall-like quartzite dykes offering natural sites for water storage. The western and northwestern part of the plateau has an emphatic presence of black soil.

Do you know?

• A tor, which is also known by geomorphologists as either a castle koppie or kopje, is a large, free-standing rock outcrop that rises abruptly from the surrounding smooth and gentle slopes of a rounded hill summit or ridge crest.



THINK!

• Ravines and gorges.

Q.4) Consider the following statements

- 1. The western coastal plains are an example of emergent coastal plain.
- 2. The western coastal plains are narrow in the middle and get broader towards north and south.
- **3.** Because of its submerged nature, eastern coast has less number of ports and harbors.
- 4. The lakes and the playas have brackish water which is the main source of obtaining salt in western coasts.

Choose the correct answer using the codes given below.

- a) 1 and 4 only
- b) 2 and 3 only
- c) 2, 3 and 4 only
- d) 2 only

Q.4) Solution (d)

The western coastal plains are an example of submerged coastal plain. It is believed that the city of Dwaraka which was once a part of the Indian mainland situated along the west coast is submerged under water. Because of this submergence it is a narrow belt and provides natural conditions for the development of ports and harbors.

The western coastal plains are narrow in the middle and get broader towards north and south.

As compared to the western coastal plain, the eastern coastal plain is broader and is an example of an emergent coast.

Because of its emergent nature, it has less number of ports and harbours. The continental shelf extends up to 500 km into the sea, which makes it difficult for the development of good ports and harbors.

The lakes and the playas have brackish water which is the main source of obtaining salt. These are feature of Indian Deserts.

Do you know?

• The plains along the Bay of Bengal are wide and level. In the northern part, it is referred to as the Northern Circar, while the southern part is known as the Coromandel Coast.

THINK!

• Deltas.

Q.5) Consider the following pairs

Passes	Connects
1. Banihal	Jammu and Srinagar
2. Zoji La	Srinagar and Leh
3. Shipki La	Himachal Pradesh and Tibet
4. Mana pass	Uttarakhand and Tibet

Which of the above pairs is/are correctly matched?

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) All the above

Q.5) Solution (d)

	Pass	Connects
•	Aghil Pass	Ladakh – China
•	Burzil Pass	Kashmir –Giligit
•	Karakoram Pass	Ladakh – China
•	Zojila Pass	Srinagar- Leh (J&K)
•	Pensi La	Ladhak -Kashmir
•	Banihal Pass	Jammu and Srinagar
•	Baralacha Pass	Ladakh <mark>– Himachal Prad</mark> esh
•	Rohtang Pass	Kullu valley with Lahul and spiti.
•	Shipki La	Himachal Pradesh-Tibet border
•	Mana Pass	Uttarakhand-Tibet border (Also known as Dungri La)
•	Niti Pass	Uttarakhand-Tibet border
•	Lipulekh Pass	Uttarakhand-Tibet border

Q.6) Which of the following best defines Duars?

- a) The tract of land lying between two converging, or confluent, rivers.
- b) The alluvial floodplains in northeastern India that lies south of the outer foothills of the Himalayas and north of the Brahmaputra River basin.
- c) The land drained by the brackish water.
- d) The landscape all along the foothills of Shiwaliks.

Q.6) Solution (b)

The Dooars or Duars are the alluvial floodplains in northeastern India that lie south of the outer foothills of the Himalayas and north of the Brahmaputra River basin. This region is about 30 km (19 mi) wide and stretches over about 350 km (220 mi) from the Teesta River in West Bengal to the Dhanshiri River in Assam. The region forms the gateway to Bhutan. It is part of the Terai-Duar savanna and grasslands ecoregion.

Do you know?

• The Terai-Duar savanna and grasslands is a narrow lowland ecoregion at the base of the Himalayas, about 25 km (16 mi) wide, and a continuation of the Gangetic Plain. It is colloquially called Terai in the Ganges Basin east to Nepal, then Dooars in West Bengal, Bangladesh, Bhutan and Assam east to the Brahmaputra River. The world's tallest grasslands are found in this ecoregion, which are the most threatened and rare worldwide.

THINK!

• Bhabar

Q.7) Consider the following Himalayan ranges.

- 1. Karakoram range
- 2. Phir Panjal range
- 3. Ladakh range
- 4. Zaskar range

Arrange the above ranges from North to South.

- a) 1-3-4-2
- b) 1-4-3-2
- c) 1-2-3-4
- d) 1-2-4-3

Q.7) Solution (a)



Do you know?

• The longitudinal valley lying between lesser Himalaya and the Shiwaliks are known as Duns. Dehra Dun, Kotli Dun and Patli Dun are some of the well-known Duns.

THINK!

• Patlands.

Q.8) Consider the following statements:

- 1. The region is swampy and marshy.
- 2. The underground streams re emerge in this region.
- 3. The region is conducive for the breeding of mosquitoes and flies.
- 4. The forests in this region have been cleared and intensive agriculture is being practiced.

The above statements are true for which of the following regions?

a) Bhabar b) Bhangar c) Khadar d) Tarai Q.8) Solution (d) The Tarai Tract:

Tarai Tract

- Tarai lies South of Bhabar.
- It is 15-30km wide with its width increasing from west to east. (Note: this is opposite from the Bhabar plains).
- This is a zone of excessive dampness, thick forests, rich wild life and malarial climate.

- This zone is formed as the rivers which got submerged in Bhabar plains reemerge in this region.
- In most of the northen states, from Haryana to Bihar, the Tarai forests have been cleared and plains are used for agriculture now.
- The Tarai belt is known for the cultivation of Sugarcane, rice, wheat, maize, oil seeds, pulses and fodder.

THINK!

- Battle of Tarai
- Kankar
- Chuar

Q.9) Dandakaranya forest has been in news because of Naxalism. Which of the following statements regarding Dandakaranya are correct?

- 1. It is drained by the tributaries of Mahanadi and Godavari
- 2. It has Abujhmar hills in the west and Eastern Ghats in the East.
- 3. It prominently lies in the states of Jharkhand, Bihar and Madhya Pradesh.

Select the code from following:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.9) Solution (a)

Dandakaranya Forest



Dandakaranya is a physiographic region of India which spans over the central and eastern parts of India. It covers a vast area of about 35,600 square miles and encompasses the Eastern Ghats in the east and the Abujhmar Hills in the west along with parts of the Indian states Andhra Pradesh, Odisha and Chhattisgarh. It stretches to about 200 miles from north to south and 300 miles from east to west. It has been the home to the people belonging to Gond community.

Geography of Dandakaranya

Major region of Dandakaranya is a sanded-over peneplain, however the land from north to southwest has a gradual slope. Hills in the eastern part of the forest rise abruptly whereas towards the west its elevation decreases gradually. Wide plateaus are covered with dense forest. Certain extensive plains in the forest are drained by the Mahanadi River along with its tributaries including Sandul, Hatti, Udanti, Jonk and Tel as well as Godavari River along with its tributaries Sabari and Indravati. A thin veneer of loamy soils can be found over the plateaus and hillsides. Valleys and plains comprise fertile alluvial soil. Dandakaranya is the home to commercially important moist forests of Sal which spans over half of the forest area. Deposits of manganese, iron ore and bauxite are also common here.

THINK!

- Peneplain
- Moist deciduous forest
- Naxalism

Q.10) Which of the following statements regarding Meghalaya plateau are NOT correct?

- 1. It is an extension of Himalayan range in North Easter India.
- 2. It is filled with fertile alluvial soil deposited by Brahmaputra.
- 3. It is separated from peninsular plateau by Garo Rajmahal gap.

Select the code from below:

- a) 1 and 2
- b) 3 only
- c) 2 and 3
- d) All of the above

Q.10) Solution (a)

Note: Incorrect statements have been asked.

Meghalaya Plateau

- The peninsular plateau extends further east beyond the Rajmahal hills to from **Meghalaya** or the **Shillong plateau**.
- Garo-Rajmahal Gap separates this plateau from the main block.
- This gap was formed by **down-faulting** (normal fault: a block of earth slides downwards). It was later filled by sediments deposited by the Ganga and Brahmaputa.
- The plateau is formed by Archaean quartzites, shales and schists.
- The plateau slopes down to Brahmaputra valley in the north and the Surma and Meghna valleys in the south.
- Its western boundary more or less coincides with the Bangladesh border.
- The western, central and the eastern parts of the plateau are known as the Garo Hills (900 m), the Khasi-Jaintia Hills (1,500 m) and the Mikir Hills (700 m).
- Shillong (1,961 m) is the highest point of the plateau.
- Because of excessive rainfall the soil is severely leached and barren. Laterite soil is found in the region.

THINK!

- Mawsenram
- Laterite soil

Q.11) Which of the following Islands of India are Volcanic in character?

- 1. Narcondam Island
- 2. Barren Island
- 3. Minicoy
- 4. Majauli

Select the code from following:

- a) 1 and 2
- b) 2 and 3
- c) 2 only
- d) 1, 2 and 3

Q.11) Solution (a)



THE BARREN AND NARCONDAM ISLANDS, north of Port Blair, are volcanic islands (Note: Barren Island is the only active volcano of India.)

The Andaman and Nicobar islands archipelago consists of approximately 265 small and large islands.

Andaman Islands:

The Andaman islands are divided into three main islands i.e. **North, Middle** and **South. Duncan passage** separates Little Andaman from South Andaman.

The Andaman group of islands in the north is separated by the **Ten Degree Channel** from the Nicobar group in the south.

Port Blair, the capital of Andaman Nicobar Islands lies in the South Andaman.

Nicobar Islands:

- Among the Nicobar islands, the **Great Nicobar** is the largest. It is the southernmost island and is very close to Sumatra island of Indonesia. The **Car Nicobar** is the northernmost.
- Most of these islands are made of tertiary sandstone, limestone and shale resting on basic and ultrabasic volcanoes [Similar to Himalayas].
- Some of the islands are fringed with **coral reefs**. Many of them are covered with thick forests. Most of the islands are mountainous.
- Saddle peak (737 m) in North Andaman is the highest peak.

Note: In Andaman and Nicobar island group, the three type of Islands are found – the extension of continent, the Volcanic Islands and Coral Islands.

Lakshadweep Islands:



- Lakshadweep is an archipelago of **twelve atolls, three reefs and five submerged** banks, with a total of about thirty-nine islands and islets.
- The reefs are in fact also atolls, although mostly submerged, with only small unvegetated sand cays above the high-water mark. The submerged banks are sunken atolls.
- Almost all the atolls have a **northeast-southwest orientation** with the islands lying on the eastern rim, and a mostly submerged reef on the western rim, enclosing a lagoon.
- It has **10 inhabited islands**, **17** uninhabited islands, attached islets, 4 newly formed islets and 5 submerged reefs.
- The main islands are Kavaratti, Agatti, Minicoy, and Amini.
- Most of the islands have **low elevation** and do not rise more than five metre above sea level (Extremely Vulnerable to sea level change).
- Their topography is flat and relief features such as hills, streams, valleys, etc. are **absent.**

Q.12) Which of the following mountain ranges is/are folding mountain ranges?

- 1. Aravalis
- 2. Himalayas

- 3. Western Ghats
- 4. Eastern Ghats

Select the code from following:

- a) 2 only
- b) 1 and 2
- c) 3 and 4
- d) 1,2 and 4

Q.12) Solution (b)

Himalaya

Himalayas are the young fold mountains. This is the highest mountain range of the world. Himalayas act as natural barrier. The extreme cold, snow and rugged topography discourage the neighbors to enter India through Himalayas. They run from west-east direction from Indus to Brahmaputra along the northern boundary of India.

The Aravallis:



Aravallis

- It runs from North East to South West for 800 km between Delhi to Gujarat.
- It is one of the oldest folding mountain ranges of the World.
- It is highly denuded. Its highest peak is Guru Shikhar.
- The Great Boundary fault (GBF) separates Aravallis from Vindhyan mountains.

THINK!

• Folding mountains

• Block mountains

Note: Western Ghats and Eastern Ghats are examples of block mountains.

Q.13) Which of the following statements regarding Thar desert are correct?

- 1. It lies only in India and not in Pakistan.
- 2. It is drained by river Luni.
- 3. It doesn't get rainfall because of the presence of Aravali hills parallel to the monsoon winds.

Select the code from following:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.13) Solution (b)

The Indian Desert:

- The Indian Desert lies towards the western margin of Aravalli Hills.
- It is also called Thar Desert.
- It is the **ninth largest desert** in the world.
- It spreads over the states of Gujarat and Rajasthan.
- This region has semi-arid and arid weather conditions. It receives less than 150 mm of rainfall per year.



Indian Desert

- The vegetation cover is low with thorny bushes.
- Luni is the main river in this area. All other streams appear only at the time of rainfall otherwise they disappear into the sand.
- Western side of Thar Desert contains large Sand dunes and Seifs.
- It is believed that a large part of Indian desert is formed by recession of sea. Many saline regions are found in this region as well as saline lakes. Most important saline lake of India is **Sambhar lake** in Rajasthan.

Note: A part of desert lies in Pakistan.

Q.14) Coal formation is found in which of the following type of rocks?

- a) Archean
- b) Vindhayan
- c) Gondwana
- d) Dharwad

Q.14) Solution (c)

The rock system of the country is divided into 4 major divisions:

- The Archean Rock System
- The Purana Rock System
- The Dravidian Rock System
- The Aryan Rock System

Туре 🦳	Sub-type	location	minerals
Archean 🔗	Archean	Covers 2/3 part of	Rich in Ferrous and
711	s <mark>ystem(4000-2500</mark>	Indian peninsula.	non-ferrous minerals
	million years old)	Found in Andhra,	like iron ore, copper,
		telangana,	manganese, mica,
		Karnataka, Madhya	dolomite, lead, zinc,
		Pradesh,	silver and gold.
		Maharashtra,	
		Rajasthan and parts	
		of Meghalaya	
		plateau.	
	Dharwad system	The system is well	Gold, Marble,
	(2500- 1800 million	developed in	Precious and semi-
	years old)	Dharwar-Bellary-	precious stones.
		Mysore belt of	

		Karnataka, Jharkhand (Ranchi-Hazaribagh), MP, Chattisgarh, Odisha and Aravalli belt between Jaipur and Palanpur in Rajasthan.	
600 million years)	Cuddapan System	Kurnool dist. Andhra, Chattisgarh, Rajasthan and lesser Himalayas	
	Vindhyas	Vindhayan Mountain Range	Diamond, Red sandstone,
Dravidian Rocks (600-300 million years)	Cambrian Rocks	Named after Cambria, the latin name for Wales in Great Britain. They are best developed in North- West Himalayan region.	They are fossiliferous sandstones underlain by clayey salt.
5	Carboniferous Rocks -upper carboniferous -middle carboniferous -lower carboniferous	Carboniferous in geology means coal bearing. Coal formation started in carboniferous age. Upper- Mount Everest Middle- Kashmir, Caiti Vallay Chimla	Limestone and dolomite. Anthracite coal is found.
91	C - Se P	and Himalayas Lower- Pir Panjal trap, kumaun region	S
Aryan Rocks	Gondwana	Odisha, Bihar, Jharkhand, Andhra Pradesh, Chattisgarh	Good Quality Coal (Bituminous and Anthracite), iron, kaolin, fire clay, sandstone and grits.
	Deccan trap (Cretaceous) (146-65 million years)	During this period, enormous quantity of basaltic lava was poured out to the surface assuming	Quartz, bauxite, Magnetite, agate and semi-precious stones

	great thickness.	
	Found in Gujarat,	
	Maharashtra, MP,	
	Chattisgarh,	
	Northern Andhra and	
	North-West	
	Karnataka.	
Tertiary (60-7 million	Found in complete	It has been called the
years)	Himalayan	age of mammals
	formation. In	because of the
	peninsular region,	abundance of fossils
	they are found in the	in these deposits.
	coast of Kutch,	
	Kathiawar, Konkan,	
	Malabar, Nilgiris and	
	the eastern Ghats.	
Qua <mark>ternary</mark>	It started around	Since most of the
	12000 years ago	particles are loose
	since the withdrawal	and recent, some
	of the last	recent fossils are
	glaciations. The	found. Oil and gas
	northern plains of	deposits are also
1 month	India came into being	found.
 121	during this period.	

Q.15) From the below identify the correct term which is collectively applied to all kinds of saline and alkaline soils in the plains of north India, particularly in Uttar Pradesh –

- a) Regolith
- b) Talus
- c) Usar
- d) Reh

Q.15) Solution (c)

Usar soil is widespread in India and it is a term collectively applied to all kinds of saline and alkaline soils in the plains of north India, particularly in Uttar Pradesh.

'Reh' is a white, grayish or ash-coloured salt that are found in low-lying plain areas in dry periods.

Regolith is simply mineral remains of decomposed rocks (no organic materials). It is soil that contains organic materials – such as roots of plants, fallen leaves, small animals such as worms, bacteria and so on.

Talus and scree are pile of rocks or collection of broken rock fragments at the base of crags, mountain cliffs, volcanoes or valley shoulders that has accumulated through periodic rockfall from adjacent cliff faces.

Q.16) Consider the following pairs and identify the correct pair/s using the code given below:

Plains : : Associated region

- 1. Malwa Plains : : located in central India especially Madhya Pradesh
- 2. Marusthali : : covers sand-dune-covered eastern portion of the Great Indian (Thar) Desert in western Rajasthan state
- 3. Utkal plains : : coastal plains in the Odisha state

Code:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.16) Solution (c)

Malwa Plains – are alluvial plains region in central Punjab state, northern India. It lies between the Ghaggar and Sutlej rivers south of the Bist Doab (plain). Hence, statement 1 is wrong.

Malwa Plateau is a natural region in west-central India occupying a plateau of volcanic origin. Geologically, the Malwa Plateau generally refers to the volcanic upland north of the Vindhya Range. Politically and administratively, the historical Malwa region includes districts of western Madhya Pradesh and parts of south-eastern Rajasthan.

Utkal plains are coastal plains in the Odisha state only. Marusthali is located in Western plains, covers sand-dune-covered eastern portion of the Great Indian (Thar) Desert in western Rajasthan state.

Q.17) Consider the following statements:

- 1. The Pamir, popularly known as the roof of the world is the connecting link between the Himalayas and the high ranges of the Central Asia.
- 2. Maximum development of glaciers occurs in the Karakoram range.

3. Purvachal or the Eastern hills are part of the Himalayan mountain system having their general alignment from the north to the south direction.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.17) Solution (d)

The Pamir Mountains, or the Pamirs, are a mountain range in Central Asia at the junction of the Himalayas with the Tian Shan, Karakoram, Kunlun, Hindu Kush, Suleman and Hindu Raj ranges. They are among the world's highest mountains.

The Pamir or popularly known as the roof of the world is the connecting link between the Himalayas and the high ranges of the Central Asia.

To the north they join the Tian Shan mountains along the Alay Valley of Kyrgyzstan. To the south they border the Hindu Kush mountains along Afghanistan's Wakhan Corridor.

Maximum development of glaciers occurs in the Karakoram range. This range accounts for about 16,000 sq km or about half of the snow bound area of the Himalayan region.

Purvachal or the Eastern hills and mountains are part of the Himalayan mountain system having their general alignment from the north to the south direction.

The *Purvachal* comprises the Patkai hills, the Naga hills, Manipur hills and the Mizo hills.

Q.18) Consider the following ports. Which of the following is correct order as we traverse from south to north?

- a) Kochi Managlore JNPT Marmagao Kandla
- b) Kochi Mangalore Marmagao JNPT Kandla
- c) Mangalore Kochi Marmagao JNPT Kandla
- d) Kochi JNPT Marmagao Managalore Kandla

Q.18) Solution (b)



Q.19) Which of the statements given below is/are not true in regard to western coastal plain?

- a) It is a narrow belt.
- b) Eastern coastal plain receives comparatively low rainfall but the Western coastal plain receives heavy rainfall.
- c) West Coast Plain is infertile and agriculturally not prosperous except in the Malabar Coast.
- d) It is an example of emergent coastal plain.

Q.19) Solution (d)

Western coastal plain is an example of submerged coastal plain (not emergent). It provides natural conditions for development of ports.

Q.20) Which of the statements given below is/are correct about Terai region?

- 1. Terai is an ill-drained, damp (marshy) and thickly forested narrow tract to the south of Bhabar running parallel to it.
- 2. It is a swampy lowland with silty soils.
- 3. Terai soils are rich in phosphate and organic matter but are deficient in nitrogen.

Choose the correct answer from the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.20) Solution (b)

Terai is an ill-drained, damp (marshy) and thickly forested narrow tract (15-30 km wide) to the south of Bhabar running parallel to it.

The underground streams of the Bhabar belt re-emerge in this belt. It is a swampy lowland with silty soils.

The terai soils are rich in nitrogen and organic matter but are deficient in phosphate.

These soils are generally covered by tall grasses and forests but are suitable for a number of crops such as wheat, rice, sugarcane, jute etc.. This thickly forested region provides shelter to a variety of wild life.

Q.21) Consider the below statements with regard to Western Ghats and Eastern Ghats:

- 1. The mean height of the Western Ghats is more than that of Eastern Ghats.
- 2. The Eastern Ghats do not form a continuous chain like the Western Ghats.
- 3. The Eastern Ghats average width is less than that of Western Ghats.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1, 2 and 3
- d) None

Q.21) Solution (a)

Statement (3) is incorrect as the Western Ghat's average width is 50 to 80 km. But Eastern Ghats width varying from 100 to 200 km.

Western Ghats is continuous and can be crossed through passes only. But Eastern Ghats has been divided into several parts by large rivers.

Western Ghats average elevation is 900 to 1,100 meters above sea-level. But the average elevation of Eastern Ghats is about 600 metres above sea level.

Q.22) Consider the following statements about The Admiralty Act, 2017

- 1. It extends the admiralty jurisdiction to all High Courts of the coastal states
- 2. It has provision for transfer of cases from one High Court to other High Court by the Supreme Court
- 3. Inland vessels are not included under the Act

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.22) Solution (d)

The Admiralty (Jurisdiction and Settlement of Maritime Claims) Act, 2017

- The Act seeks to consolidate the existing laws on jurisdiction of courts on civil admiralty matters, or cases of maritime accidents or contracts related to maritime commerce, proceedings on maritime claims, and seizure of ships.
- It repealed obsolete British statutes on admiral jurisdiction in civil matters laws such as the Admiralty Court Act, 1861 and the Colonial Courts of Admiralty Act, 1890.
- It shall apply to every vessel, irrespective of the place of residence or domicile of the owner
- The Act shall not apply to an inland vessel or a vessel under construction that has not been launched unless it is notified by the Central Government to be a vessel for the purposes of this Act
- The Act shall not apply to a warship, naval auxiliary or other vessel owned or operated by the Central or a State Government and used for any non-commercial purpose, and, shall also not apply to a foreign vessel which is used for any noncommercial purpose as may be notified by the Central Government.

- The Supreme Court may on an application of any party, transfer, at any stage, any admiralty proceeding from one High Court to any other High Court and the latter High Court shall proceed to try, hear and determine the matter from the stage at which it stood at the time of transfer.
- Initially admiralty jurisdiction applied to the Bombay, Calcutta and Madras High Courts and the Act further extends this to the Karnataka, Gujarat, Odisha, Kerala, Hyderabad High Courts and any other High Court notified by the central government.

Read More - http://lawmin.nic.in/ld/P-ACT/2017/A2017-22.pdf

THINK!

• Parveen Singh Committee

Source: <u>http://www.thehindu.com/news/national/admiralty-bill-gets-rajya-sabha-</u>nod/article19346238.ece

Q.23) Consider the following statements about Wide Angle Search for Planets (WASP)

- 1. It is a collaboration finding exoplanets by gravitational microlensing
- 2. It is operated by a consortium of US based academic institutions, NASA and ESA

Select the correct statements

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.23) Solution (d)

WASP or Wide Angle Search for Planets is an international consortium of several academic organisations performing an ultra-wide angle search for exoplanets using transit photometry.

WASP is the detection program composed of the Isaac Newton Group, IAC and six universities from the United Kingdom.

WASP is operated by a consortium of academic institutions which include:

- Instituto de Astrofisica de Canarias
- Isaac Newton Group of Telescopes

- Keele University
- Open University
- Queen's University Belfast
- St. Andrews University
- University of Leicester
- Warwick University.

THINK!

• WASP-39B

Source: <u>http://www.thehindu.com/sci-tech/science/scientists-discover-smallest-ever-</u> star/article19265069.ece

Q.24) Which of the following statements about 'SOHUM' are correct?

- 1. It is an indigenously developed low-cost hearing screening device for new-borns
- 2. It has been developed under the Department of Biotechnology (DBT)
- 3. It uses Otoacoustic Emissions (OAEs) testing

Select the incorrect statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.24) Solution (a)

Sohum"- An innovative Newborn hearing screening Device

It is developed by School of International Biodesign (SIB) startup M/s Sohum Innovation Labs India Pvt. Ltd.

This innovative medical device has been developed under Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India supported (SIB). SIB is a flagship Program of the DBT aimed to develop innovative and affordable medical devices as per unmet clinical needs of India and to train the next generation of medical technology innovators in India, it is a valuable contribution to the Make in India campaign of the Government. This Program is implemented jointly at AIIMS and IIT Delhi in collaboration with International partners. Biotech Consortium India Limited manages techno-legal activities of the Program.

Sohum is a low cost and unique device which uses brainstem auditory evoked response, the gold standard in auditory testing to check for hearing response in a newborn.

Auditory Brainstem Response (ABR) - <u>https://www.asha.org/public/hearing/Auditory-</u> Brainstem-Response/

THINK!

ADIP Scheme

Source: <u>http://www.livemint.com/Science/YhSHDwNcBpRDMtNRzwrEhM/Govt-launches-</u> lowcost-screening-device-to-detect-congenital.html

Q.25) Consider the following statements about 'Breakthrough Starshot Project'

- 1. The smallest spacecraft called 'Sprites' ever launched has been developed under this project
- 2. It is a research and engineering project by ISRO

Select the correct statements

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.25) Solution (a)

The world's smallest spacecrafts dubbed as Sprites ever launched are successfully travelling in low Earth orbit and communicating with systems on Earth.

The six prototypes of Sprites were launched in June 2017 as part of the Breakthrough Starshot project designed to test technologies that would eventually be used for interstellar missions.

They are smallest spacecraft that have managed to establish contact with ground stations.

Sprites have been developed by researchers at Cornell University. Each of the mini Sprite spacecrafts are built on a single 3.5*3.5 centimetre circuit board. They weigh just four grams each.

Breakthrough Starshot is a comprehensive space program launched under the US \$100 million Breakthrough Initiatives, announced by Yuri Milner and Stephen Hawking to develop

and launch practical interstellar space missions. The program aims to demonstrate proof of concept for light-propelled spacecraft that could fly at 20 per cent of light speed. Its main objective is to send one-gram chips to star systems beyond the solar system in search of extra-terrestrial intelligence.

Source: <u>http://www.thehindu.com/todays-paper/tp-in-school/science-breakthrough-</u> starshot-successfully-launch-worlds-smallest-spacecraft-885/article19393064.ece

Q.26) Which of the following statements about 'International Expedited Traveller Initiative Programme' is/are correct?

- a) It allows expedited clearance for pre-approved, low-risk travellers upon arrival in the Schengen Area
- b) India has joined the programme
- c) Both (a) and (b)
- d) Neither (a) nor (b)

Q.26) Solution (b)

India recently signed International Expedited Traveler Initiative Programme with the United States. Also called as Global Entry Programme, this scheme will allow expedited entry into the US to low-risk travellers from India.

Global Entry is a US Customs and Border Protection (CBP) program that allows speedy clearance for low-risk travellers upon their arrival in US. The travellers are pre-approved for the programme after a rigorous background check.

Currently, 53 US airports and 15 pre-clearance locations are available under the Global Entry programme.

Source: <u>http://www.financialexpress.com/india-news/india-becomes-11th-country-to-</u> enter-global-entry-programme-of-us-know-what-it-is-and-how-it-works/748586/