ANSWERS TEST : 2 GEOGRAPHY

1. Solution D

ISEA is under Ministry of Earth Science (MoES), started in 1981. India's newest base in Antarctica is Bharti.

The **Antarctic Treaty** was signed in Washington on 1 December 1959 by the twelve countries whose scientists had been active in and around **Antarctica** during the International Geophysical Year (IGY) of 1957-58. It entered into force in 1961 and has since been acceded to by many other nations.

The **main purpose of the Antarctic Treaty**, which was signed in Washington on December 1, 1959, is to ensure "in the interest of all mankind that **Antarctica** shall continue forever to be used exclusively for peaceful **purposes** and shall not become the scene or object of international discord."

Himadri Station is India's first Arctic research station located at Spitsbergen, Svalbard, Norway. It is located at the International Arctic Research base, Ny-Ålesund. It was inaugurated on the 1st of July, 2008 by the Minister of Earth Sciences.

Government body: National Centre for Antarctic and Ocean Research

Named for: Himalayas

2. Solution D

Following are the research activities in the area of climate change studies and Atmospheric studies:

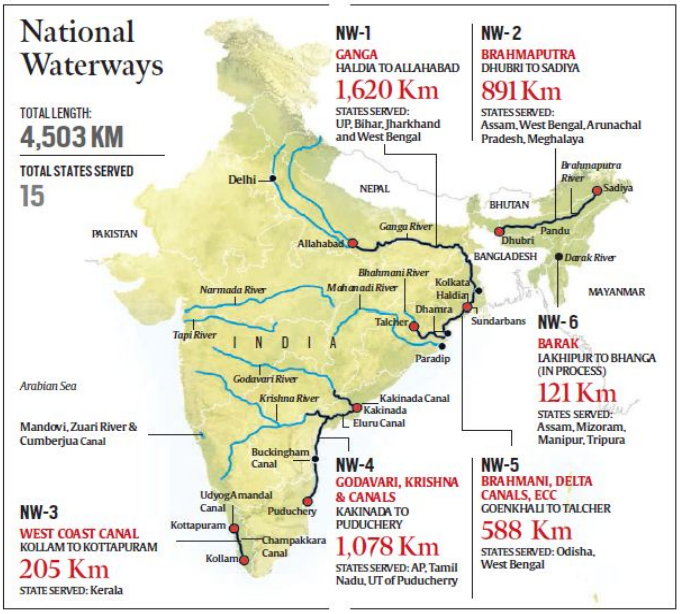
- Study of snow melt/freeze dynamics in Antarctica using space based and ground based observations
- Measurements of Atmospheric Black Carbon (BC), GHGs and solar radiation fluxes at Antarctica on a long-term basis
- Image measurements of visibility to investigate atmospheric parameters
- Study on long term precipitation over Antarctica using surface and space-based measurements

3. Solution D

Although Zealandia was submerged from the time it separated from Australia and Antarctica – part of the ancient continent of Gondwana – 80 million years ago, this event pushed it deeper beneath the sea.

Around 40 or 50 million years ago, the "Pacific Ring of Fire" formed an area of intense seismic and volcanic activity. This cause dramatic changes in ocean depth and volcanoes that buckled the seabed of Zealandia.

4. Solution C



5. Solution B

El Salvador, Central America's smallest nation, have passed a law that bans all mining for gold and other metals, making the country the world's first to impose such a broad prohibition on the extraction of minerals.

The ruling, aimed at protecting the nation's allegedly quite fragile environment, comes after a long-dragged dispute over a proposed gold mine.

The law also bans the use of cyanide and mercury for mining.

Legislators across the political spectrum supported the measure, which does not apply to quarrying or the mining of coal, salt and other non-metallic resources.

Supporters said the ban was essential to protect water reservoirs and reduce social tensions.

According to the United Nations, El Salvador is one of the most densely populated countries and the second-most environmentally degraded in America, after Haiti, which makes it especially sensitive to the potential impact of large mining projects.

6. Solution C

India will soon boast the world's tallest railway bridge, construction of which is on in full swing, over the river **Chenab** in the hostile terrain of Jammu and Kashmir.

Designed by consultants from Finland and Germany, the 1.315 km-long bridge will soar to a height of 359 metres over the Chenab, which is 35 metres taller than the Eiffel Tower.

The bridge forms the crucial link in the 111-km stretch between Katra and Banihal which is part of the Udhampur- Srinagar-Baramulla section of the Kashmir Railway project.

The area was inaccessible earlier and the railways have to make 22 km of roads as access path for the construction of the bridge.

7. Solution D

Chenani-Nashri Tunnel is country longest road tunnel, and also **Asia's longest bi-directional highway tunnel**. PM Modi inaugurated it on 2nd April 2017. The original distance by road between Chenani and Nasheri was earlier 41 km now it is 10.9 km. The longest highway tunnel is the world's is in Norway 24.51 km.

8. Solution A

A new web portal **"NAKSHE"** was launched by the Union Minister for Science & Technology and Earth Sciences, Dr. Harsh Vardhan in New Delhi, on the occasion of 250th anniversary of Survey of India (SoI).

Topographic maps or Open Series Maps (OSM) containing natural and man-made geographical features including terrain or topography are prepared by the SoI since its inception in 1767 and is in conformity with the National Map Policy-2005. These OSM maps have been made available for free download from **"nakshe"** web portal in pdf format on 1:50,000 scale through **Aaadhar enabled** user authentication process, in line with Digital India programme of the Government of India.

The Survey of India, the principal mapping agency of the country is celebrating its 250th anniversary this year. Origin of the Survey of India is traced back to Year 1767. It is the oldest scientific department in India and one of the oldest survey establishments in the world.

9. Solution C

Laterite is a soil and rock type rich in iron and aluminium, and is commonly considered to have formed in hot and wet tropical areas. Nearly all laterites are of rusty-red coloration, because of high iron oxide content. They develop by intensive and long-lasting weathering of the underlying parent rock. Tropical weathering (laterization) is a prolonged process of chemical weathering which produces a wide variety in the thickness, grade, chemistry and ore mineralogy of the resulting soils. The majority of the land area containing laterites is between the tropics of Cancer and Capricorn. Laterites are formed from the leaching of parent sedimentary rocks (sandstones, clays, limestones); metamorphic rocks (schists, gneisses, migmatites); igneous rocks (granites, basalts, gabbros, peridotites); which leaves the more insoluble ions, predominantly iron and aluminium. The mechanism of leaching involves acid dissolving the host mineral lattice, followed by hydrolysis and precipitation of insoluble oxides and sulfates of iron, aluminium and silica under the high temperature conditions of a humid sub-tropical monsoon climate.

An essential feature for the formation of laterite is the repetition of wet and dry seasons. Rocks are leached by percolating rain water during the wet season; the resulting solution containing the leached ions is brought to the surface by capillary action during the dry season. These ions form soluble salt compounds which dry on the surface; these salts are washed away during the next wet season. Laterite formation is favoured in low topographical reliefs of gentle crests and plateaus which prevents erosion of the surface cover. The reaction zone where rocks are in contact with water from the lowest to highest water table levels—is progressively depleted of the easily leached ions of sodium, potassium, calcium and magnesium. A solution of these ions can have the correct pH to preferentially dissolve silicon oxide rather than the aluminium oxides and iron oxides.

10. Solution B

Refer continental drift theory.

Large desert are located at low latitudes. For example Tropic of Cancer passes through Sahara desert of Northern Africa. Earlier pangea was in Southern Hemisphere and North Pole was close to present day Durban (South Africa).

11. Solution B

India's first electric bus service was launched at **Rohtang Pass** area in Himachal Pradesh. It was **first** in world at altitude of 13000 feet. Target was to reduce carbon emission which is now causing melting of glaciers in Himalaya.

Zero hunger programme was launched in 16th Oct 2017 (World Food Day) in three districts namely **Gorakhpur** in UP, **Koraput** in Odisha and **Thane** in Maharashtra. It was Initiated by **ICAR** (Indian Council of Agricultural Research), **ICMR** (Indian Council of Medical Research), **MS Swaminathan Research Foundation** and the Biotechnology Industry research Assistance Council **(BIRAC)**.

India's first advanced Homeopathy virology lab was inaugurated at Dr. Anjali Chatterjee Regional research Institute for Homeopathy in **Kolkata, West Bengal**. (Viral diseases like Influenza, Dengue, Swine flu H1N1, Chikunguniya, Japanese encephalitis).

12. Solution D

In addition to the vegetation of the equatorial forest (Guyana), in the Llanos, which share Venezuela and Colombia, savannas predominate, grasses of seasonal pastures, with gallery forests, woods (small clusters isolated from trees) and estuaries with palms (palma llanera, especialmente), etc. Thus Tropical rain forest is found in

1. Orinoco basin in South America
2. Zaire basin in Africa
3. New Guinea
4. Isthumus of Central America

13. Solution B

1. Adelaide, 2. Melbourne, 3. Sydney, 4. Brisbane

14. Solution A

See Physical map of Africa.

15. Solution C

Brazil has largest reserves of Iron ore in the continent. The two major reserves regions are **Itabira** (region of Minas Gerias) and **Carajas** in state of Para (east of river Xingu).

16. Solution B

See Political map of Africa.

17. Solution B

Caledonian orogeny (320 mya), Hercynian (240 mya), Alpine (30 mya)

18. Solution A

- Block mountains are formed when large areas or blocks of earth are broken and **subsides vertically**.
- The uplifted blocks are termed as **horsts** and the lowered blocks are called **graben**.
- The **Great African Rift Valley (valley floor is graben)**
- The **Rhine Valley** in Europe.
- **Vosges mountain** in Europe
- Mountain ranges of **Satpura and Vindhya** (Narmada and Tapi)in India.
- The **Sierra Nevada Block Mountains** in **North America**.
- **Harz Block Mountains** in **Germany**

19. Solution D

Intrusive igneous rocks have larger mineral crystals due to slow rate of cooling.

20. Solution C

Mount St. Helens or Louwala-Clough is an active stratovolcano located in **Mountain range:** Cascade range, Skamania County, Washington, in the Pacific Northwest region of the United States. It is 96 miles south of Seattle, Washington, and 50 miles northeast of Portland, Oregon. **Last eruption:** 10 July 2008; **Elevation:** 2,550 m

21. Solution B

Some Scientists have related the shape of deltas to hydrodynamics like:

a) If the river is overloaded with sediments and the river water is heavier than sea water an elongated submarine delta is formed.

b) A lobate or fan shaped delta is formed if the river water is as dense as sea water.

c) Bird foot type delta is formed when the river water is lighter than the sea water.

Note on the Basis of shape delta is of (a) Arcuate, (b) Bird Foot type and (c) Estuarine type.

22. Solution A

Acidic lava contains high silica have high melting point and very viscous so flows slowly and basic

lava have lower melting point, do not have much silica are very fluid and spread upto great distance.

As acidic lava cools slowly larger sized crystals are formed.

23. Solution C

Out wash deposits/plains and **striation** are formed by glaciers where as **Yardang** and **Sandbank** are Aeolian landform formed by wind.

Glacial striations are scrathes or gouges cut into bed rock by glacial abrasion.

Outwash plains are made up of fluvio-glacial deposits washed out from the terminal moraines by the streams and channels of the stagnant ice mass.

24. Solution B

Refer Plate tectonic theory and Atlas

25. Solution D

(Refer Class notes) Monsoon climate

26. Solution A

Dead Sea lies in between Israel and Jordan is a salt lake 1300 feet below sea level. Great Rift Valley or East African rift valley runs from South of lake Malawi Northwards to the red sea and then through the gulf of Aquaba to the Dead Sea.

It is called as Dead Sea because the salinity of water is so high that the fish cannot live in it. Since ancient times it is a great source of salt and Naptha.

27. Solution D

Natural Levees – Fluvial

Eskar – Glacial

Polji – Karst

Barchan - Aeolian

28. Solution D

S-waves can propagate only through solid medium.

29. Solution D

The Kalahari Desert is a large semi arid and sandy savanna in southern Africa. It is **not a true desert** because it does experience a rainy season when precipitation falls in the form of heavy thunderstorms. The dry areas receives 110-200 mm of rain per year. Thus due to low aridity it supports variety of flora and fauna. Less rainfall is due to wind coming from land words.

30. Solution D

Refer map of World.

31. Solution D

V-shaped valleys, Gorges and Canyons are formed by action of rivers. Where as Hanging valleys, Corries and pyramidal peaks and drumlins (basket of egg topography) is formed by Glacial action.

32. Solution B

Refer Political map of Australia:

Timor Sea – 1; Arafura Sea – 2

Gulf of Carpentaria – 3; Coral Sea – 4

33. Solution D

Refer Political map of West Asia.

Doha – 1; Abu Dhabi – 2; Dubai – 3; Sharjah – 4

34. Solution D

Sydney has monsoonal type of climatic condition.

35. Solution A

Broken Hill is famous for lead, zinc, and silver mines (see class notes).

36. Solution B

Coal – New castle to Sydney – New South Wales

Oil and Gas – From Bass strait – Victoria

Non-fuel minerals – South Australia

Uranium – Northern Territory (rum jungle)

37. Solution B

Semang – Equatorial forests

Maasai – Savannah grassland

Bushman – Hot deserts

Kirghiz – Temperate grasslands

38. Solution A

Refer class notes – Plate Tectonic Theory and Volcanism.

39. Solution B

Refer class notes – Plate Tectonic Theory.

40. Solution D

Lithification (from the Ancient Greek word lithos meaning 'rock' and the Latin-derived suffixific) is

the process in which sediments compact under pressure, expel connate fluids, and gradually become solid rock. Essentially, **lithification** is a process of porosity destruction through compaction and cementation.

41. Solution B

V-shaped valleys are divided into two types: (a) Gorges and (b) Canyons. Gorges and Canyons represents very deep and **Narrow** valleys having very steep valley side slopes, say wall like steep valley sides.

Normally a very deep and narrow valley is called a Gorge and the extended form of a Gorge is called a canyon.

Grand Canyon is associated with the Colorado River.

42. Solution A

Outer Crust – Lower Crust = Conrad Discontinuity

Upper Mantle and Lower Crust = Mohorovicic Discontinuity

Core and Mantle = Gottenberg-weichart Discontinuity

Outer Core and Inner Core = Lehman-Jeffrey

43. Solution A

Dyke/Dike (geology), a subvertical sheet-like intrusion of magma or sediment. Where as bed like form is called Syll/Sill.

Lapilli is a size classification term for tephra, which is material that falls out of the air during a volcanic eruption or during some meteorite impacts. **Lapilli** (singular: lapillus) means "little stones" in Latin. By definition **lapilli** range from 2 to 64 mm (0.08 to 2.52 in) in diameter.

Breccia is a term most often used for clastic sedimentary rocks that are composed of large angular fragments (over two millimeters in diameter). The spaces between the large angular fragments can be filled with a matrix of smaller particles or a mineral cement that binds the rock together.

44. Solution C

Earth´s inner core and outer core are both made of an iron-nickel alloy. The state of matter (solid, liquid or gas) of a given material depends on its temperature and pressure. Most materials, including iron and nickel, change from liquid to solid at lower temperatures and/or higher pressures.

As we go deeper in the Earth both temperature and pressure increases. Although the inner core is very hot, it is solid because it is experiencing very high pressure. The pressure in the outer core is not high enough to make it solid.

S-waves do not penetrate the liquid layers.

45. Solution D

A **landlocked** state or **landlocked country** is a sovereign state entirely enclosed by land, or whose only coastlines lie on closed seas. There are currently 49 such **countries**, including five partially recognised states.

See Political map of Africa.

Note: The truth is that circulation in the **Mediterranean** is very active both at surface level and deeper down. It is also specific to the **Mediterranean**. The **Mediterranean** is known as a partly-**closed sea** as it only has one narrow, shallow passage (the Strait of Gibraltar) linking it to the world's oceans.

46. Solution B

X_1 – Recife; X_2 – Brasilia

X_3 – Riode Janeiro; X_4 – Sao Paulo

47. Solution B

New Zealand experiences very cold winters in extreme south. The Southern Alps mountain of South Island of New Zealand produces climatic contrast between east and west than in north-south direction.

48. Solution B

Tsushima Island is an Island of the Japanese archipelago situated in the Korea Strait, approximately halfway between Japanese mainland and the Korean Peninsula.

It is located between Honshu (Middle Island) and Kyushu (Southern Island) of Japanese mainland.

It is Northernmost Coral of the world which is bleached.

49. Solution B

1 – Selvas (Amazon rainforest)

2 – Catingas, Campos, Cerrados (Tropical Scrub and Thornwood)

3 – Congo Basin (Equatorial Rainforest)

4 – Ogaden Desert and Somali Peninsula

50. Solution D

P-waves are a type of elastic wave, and are one of the two main types of elastic body waves, called seismic waves in seismology, that travel through a continuum and are the first waves from an earthquake to arrive at a seismograph. The continuum is made up of gases (as sound waves), liquids, or solids, including the Earth. P-waves can be produced by earthquakes and recorded by seismographs. The name P-wave can stand for either **pressure wave** as it is formed from alternating compressions and rarefactions or **primary wave**, as it has the highest velocity and is therefore the first wave to be recorded.

In isotropic and homogeneous solids, the mode of propagation of a P-wave is always longitudinal; thus, the particles in the solid vibrate along the axis of propagation (the direction of motion) of the wave energy.

51. Solution C

The **Alps** form part of a Cenozoic orogenic belt of mountain chains, called the Alpide belt, that stretches through southern **Europe** and Asia from the Atlantic all the way to the Himalayas. This belt of mountain chains was **formed** during the Alpine orogeny.

Convergent boundaries: There are two main ways that two plates can converge. In a collision boundary, the two plates push almost equally against each other, buckling the material up in the middle. This leads to the formation of mountain ranges, such as the **Himalayas** and the Alps.

The **Caucasus Mountains** are a mountain system in West Asia between the Black Sea and the ...**orogeny** at the active margin of the Tethys Ocean while the uplift of the Greater Caucasus is dated to the Miocene during the Alpine **orogeny**.

The **Caucasus Mountains formed** largely as the result of a tectonic plate collision between the Arabian plate moving northwards with respect to the Eurasian plate. ... As this happened, the entire rocks that had been deposited in this basin from the Jurassic to the Miocene were folded to **form** the Greater **Caucasus Mountains**.

The Rockies are formed due to collision between American Plate (Continental) and Pacific Plate (Oceanic).

52. Solution A

Clastic – Conglomerate

Extrusive – Tuff

Metamorphic – Gneiss

Plutonic - Granite

53. Solution A

Mid-ocean ridges are formed by divergent plate movement. Refer class notes – Plate Tectonic Theory

54. Solution C

Rift valley lake – Tanganyika

Basic lava sheet – Deccan trap region, India

An active volcano – Stramboli

Batholith – Upland of Brittany, France

Stromboli is a small island in the Tyrrhenian Sea, off the north coast of Sicily, containing one of the three active volcanoes in Italy. It is one of the eight Aeolian Islands, a volcanic arc north of Sicily.

A **batholith** is a large mass of intrusive igneous rock that forms from cooled magma deep in the Earth's crust. Batholiths are almost always made mostly of felsic or intermediate rock types, such as granite, quartz monzonite, or diorite.

55. Solution B

It was invented in 1935 by Charles F. **Richter** of the California Institute of Technology as a mathematical device to compare the size of **earthquakes**. The **Richter scale** is **logarithmic scale used** to rate the magnitude of an **earthquake**, that is the amount of energy released during an **earthquake**.

Intensity of earthquake is measured by MM Scale i.e. modified mercalli scale

Intensity: The severity of earthquake shaking is assessed using a *descriptive* scale – the Modified Mercalli Intensity Scale.

Magnitude: Earthquake size is a *quantitative* measure of the size of the earthquake at its

source. The Richter Magnitude Scale measures the amount of seismic energy released by an earthquake.

When an earthquake occurs, its magnitude can be given a single numerical value on the Richter Magnitude Scale. However the intensity is variable over the area affected by the earthquake, with high intensities near the epicentre and lower values further away. These are allocated a value depending on the effects of the shaking according to the Modified Mercalli Intensity Scale.

56. Solution D

Exfoliation, separation of successive thin shells, or spalls, from massive rock such as granite or basalt; it is common in regions that have moderate rainfall. The thickness of individual sheet or plate may be from a few millimetres to a few metres.

57. Solution A

58. Solution C

The **Karoo** is a semi-desert natural region of South Africa.

The Karoo is partly defined by its topography, geology and climate — above all, its low rainfall, arid air, cloudless skies, and extremes of heat and cold.

Sheep farming is the economic backbone of the Karoo, with other forms of agriculture established in areas where irrigation is possible. Lately game farms and tourism have also started to make an economic impact. The Little Karoo is the smaller (and more southerly) of the two Karoo sub-regions. Locally it is usually called the Klein Karoo, which is in Afrikaans for Little Karoo. Geographically it is a fertile valley.

59. Solution A

Bajada is a type of alluvial plain occurring towards the centre of intermontane basis in arid or semi-arid areas. Bajadas are produced when several alluvial four join together to form a gently sloping surface lying between upland areas and played lakes.

60. Solution B

61. Solution B

62. Solution B

63. Solution B

Dakshin Gangotri was the first scientific base station of India situated in Antarctica, part of the Indian Antarctic Program. It is located at a distance of 2,500 kilometres (1,600 mi) from the South Pole.

64. Solution D

Maitri is India's second permanent research station in Antarctica as part of the Indian Antarctic Programme. The name was suggested by the then PM Mrs Indira Gandhi who was assassinated a month before the expedition left the shores of India on 03 Dec 1984. Work on the station was first started by the Indian Expedition which landed there in end Dec 1984, the team was led by DR B B Bhattacharya. I, Sqn Ldr DP Joshi, the surgeon of the team, was the first camp commander of the tentage at camp Maitri. It was built and finished in 1989, shortly before the first station Dakshin Gangotri was buried in ice and abandoned in 1990–91. Maitri is situated on the rocky mountainous region called Schirmacher Oasis. It is only 5 km away from Russian Novolazarevskaya Station.

65. Solution B

A **bergschrund** is a crevasse that forms where moving glacier ice separates from the stagnant ice or firn above. It is often a serious obstacle for mountaineers, who sometimes abbreviate "bergschrund" to "schrund".

66. Solution A

Refer class notes

67. Solution C

Refer Plate Tectonic Theory

Convergent motion of tectonic planets causes the maximum occurrence of earthquakes along circum Pacific belt.

68. Solution B

The Great Barrier Reef, off the coast of Queensland in northeastern Australia, is the largest living thing on Earth, and even visible from outer space. The 2,300km-long ecosystem comprises thousands of reefs and hundreds of islands made of over 600 types of hard and soft coral. It's home to countless species of colourful fish, molluscs and starfish, plus turtles, dolphins and sharks.

High salinity, intense current, high temperature, high siltation is responsible for death of coral polyp and causes coral bleaching.

69. Solution C

A mantle **plume** is an upwelling of abnormally **hot** rock within the Earth's mantle. As the heads of mantle **plumes** can partly melt when they reach shallow depths, they are thought to be the cause of volcanic centers known as hotspots and probably also to have caused flood basalts.

The Hawaii hotspot is a volcanic hotspot located near the namesake Hawaiian Islands, in the northern Pacific Ocean.

Ancient Hawaiians were the first to recognize the increasing age and weathered state of the volcanoes to the north as they progressed on fishing expeditions along the islands.

70. Solution A

In equatorial rain forest, most rocks weather rapidly due to excessive temperature, rainfall and leaching.

71. Solution B

The correct sequence is : Cairns – Brisbane – Sydney – Melbourne

72. Solution C

The correct sequence is: Zambia – Zimbabwe – Botswana - Lesotho

73. Solution C

Coral – 1; Arafura – 2; Banda – 3; Soloman – 4

74. Solution A

New Zealand has a developed livestock because of its cool moist climate.

75. Solution B

The shaded area indicates sheep-raising area.

Wheat is the major winter crop grown in Australia with sowing starting in autumn and harvesting, depending on seasonal conditions, occurring in spring and summer. The main producing states are Western Australia, New South Wales, South Australia, Victoria and Queensland.

Sheep raising area is mainly in Murray darling basin of Australia. The best sheep lands are between river Murray and Darling.

Merino is the most important breed of sheep producing the best wool.

New Southwales has maximum numbers of Sheep's where as Queensland has maximum numbers of Cattles.

76. Solution C

The tallest trees in the world are redwoods (*Sequoia sempervirens*), which tower above the ground in California. These trees can easily reach heights of 300 feet (91 meters).

Australian Temperate rain-forest biome has eucalyptus and sequoia trees.

77. Solution D

78. Solution B

See Plate Tectonic Theory and Volcanism.

79. Solution C

'S' waves do not travel in liquid and gas while 'P' waves travel in solid, liquid as well as gas.

80. Solution C

Rock structure do not influence (cause) weathering.

Texture of the rock play important role in weathering.

81. Solution A

A plain, largely composed of recent alluvium – Fool plain

A deep sea plain – Abyssal plain

A plain formed by wind action – Loess plain

A level surface slightly covered with thin layer of alluvium - Pediplain

82. Solution B

Stratosphere – contains much of the total atmospheric ozone

Exosphere – Atoms of oxygen, hydrogen and helium from the tenuous atmosphere

Troposphere – Temperature decrease with increasing height

Ionosphere – Aurora Boreal's and Aurora Australis and produced.

83. Solution B

The correct sequence is: Amazon basin – Brazilian highlands – Campos – Mato Grosso Plateau

84. Solution C

See physical map of Southern Africa

Harare – 4; Lilongwe – 5;

Maseru – 3; Windhoek – 1

85. Solution C

Refer Political map of South America

86. Solution D

Commercial grain farming – 4

Hunting-gathering – 3

Intensive commercial farming – 5

Ranching – 1

A ranch is an area of land, including various structures, given primarily to the practice of ranching, the practice of raising grazing livestock such as cattle or sheep for meat or wool.

Coastal areas where rainfall is high intensive commercial farming is practised.

87. Solution C

Canadian Prairies – Spring wheat cultivation

Argentine Pampas – Beef cattle ranching

South African Veld – Maize Growing

Darling Downs, pastoral and agricultural region in southeastern Queensland, Australia. It extends westward from the Great Dividing Range and southward to the Dumaresq and Macintyre rivers.

A closely settled region with an adequate rainfall (average 25 inches [635 mm]) and fertile basaltic soils, it is a major wheat and dairy belt that also produces barley, oats, rye, corn (maize), sorghum, and millet. Sheep, poultry, pigs, and beef cattle are the principal livestock raised in the Downs. The Moonie oil field and natural gas fields are located there, and the region has large coal reserves. Toowoomba is the commercial centre.

The herded livestock include cattle, yaks, sheep, goats, reindeer, horses, donkeys or camels, or mixtures of species. **Nomadic** pastoralism is commonly practised in regions with little arable land, typically in the developing world, especially in the steppe lands north of the agricultural zone of Eurasia.

88. Solution C

Fjords are submerged U-shaped glacial troughs. They mark the path of glaciers that plunge down often rising straight from the sea with tributary branches joining the main inlets at right angles.

89. Solution A

Endogenetic tensional forces are responsible for formation of rift valleys.

90. Solution C

Hoover Dam is a concrete arch-gravity dam in the Black Canyon of the Colorado River, on the border between the U.S. states of Nevada and Arizona.

Grand Coulee Dam is a concrete gravity dam on the Columbia River in the U.S. state of Washington, built to produce hydroelectric power and provide irrigation.

Niagara Falls is the collective name for three waterfalls that straddle the international border between Canada and the United States; more specifically, between the province of Ontario and New York state. They form the southern end of the Niagara Gorge.

Located on the Niagara River, which drains Lake Erie into Lake Ontario, the combined falls form the highest flow rate of any waterfall in the world that has a vertical drop of more than 165 feet (50 m). During peak daytime tourist hours, more than six million cubic feet (168,000 m^3) of water goes over the crest of the falls every minute. Horseshoe Falls is the most powerful waterfall in North America, as measured by flow rate.

Saint Anthony Falls or the Falls of Saint Anthony, located northeast of downtown Minneapolis, Minnesota, was the only natural major waterfall on the Upper Mississippi River.

91. Solution B

Refer class notes.

92. Solution D

In earthquakes, shocks are generated at a point known as focus.

93. Solution C

Gleization: The term *glei* is of Russian origin means blue, grey or green clay. The Gleization is a process of soil formation resulting in the development of a glei (or gley horizon) in the lower part of the soil profile above the parent material due to poor drainage condition (lack of oxygen) and where waterlogged conditions prevail. Such soils are called hydro orphic soils.

The process is not particularly dependent on climate (high rainfall as in humid regions) but often on drainage conditions.

The poor drainage conditions result from:

1. Lower topographic position, such as depression land, where water stands continuously at or close to the surface.
2. Impervious soil parent material, and.
3. Lack of aeration.

Under such conditions, iron compounds are reduced to soluble ferrous forms. The reduction of iron is primarily biological and requires both organic matter and microorganisms capable of respiring an aerobically. The solubility of Ca, Mg, Fe, and Mn is increased and most of the iron exists as Fe++ organo complexes in solution or as mixed precipitate of ferric and ferrous hydroxides.

This is responsible for the production of typical bluish to grayish horizon with mottling of yellow and or reddish brown colors.

94. Solution B

Conservative plate boundaries – severe earthquake

95. Solution C

Majuli is today degraded by population pressure, flooding and erosion.

96. Solution B

Submergent coastlines are stretches along the coast that have been inundated by the sea by a ... Features of a **submergent coastline** are drowned river valleys or rias and drowned glaciated valleys or **fjords**.

97. Solution D

Isogonic lines are **lines** on the Earth's surface, used for magnetic declination, along which the declination has the same constant value, and **lines** along which the declination is zero are called agonic **lines**.

98. Solution A

The **São Francisco** River or Rio **São Francisco** is a river in Brazil. It forms tooth like/cuspate delta.

Mississippi river (Southern USA) has bird foot type delta also called digitate delta.

Niger river (Africa) has Arcuate/Fan shaped delta/Lobate delta.

The Susquehanna River is a major river located in the northeastern United States. At 464 miles long, it is the longest river on the East Coast of the United States that drains into the Atlantic Ocean, via the Chesapeake Bay.

99. Solution B

Vosges is block mountain situated in Europe (France).

The Fergana Valley is a valley in Central Asia spread across eastern Uzbekistan, southern Kyrgyzstan and northern Tajikistan.

Mauna Loa is one of five volcanoes that form the Island of Hawaii in the U.S. state of Hawai‘i in the Pacific Ocean.

100. Solution A

Chika and Pulicat are lagoon. The great lakes of North America are glacially originated lake.

It is an estimated 5,387 feet **deep** (1,642 meters), and its bottom is approximately 3,893 feet (1,187 meters) below sea level. **Lake Baikal** is also the world's largest freshwater **lake** in terms of volume. ... The **lake** is **so deep** because it is located in an active continental rift zone.

Lake Turkana formerly known as **Lake Rudolf**, is a **lake** in the Kenyan Rift Valley, in northern Kenya, with its far northern end crossing into Ethiopia.