Q.1) Consider the following statements.

1. On the wetter margins, it has a transition to the moist deciduous, while on the drier margins to thorn forests.
2. In the higher rainfall regions of the Peninsular plateau and the northern Indian plain, these forests have a parkland landscape.
3. They are the most extensive kind of forest and covers large part of country.

The above statements depict the features of which of the following type of forest?

a) Tropical semi-evergreen forest.
b) Tropical dry deciduous forest.
c) Tropical Thorn forest
d) Littoral and swamp forest.

Q.1) Solution (b)

Dry deciduous forest covers vast areas of the country, where rainfall ranges between 70 - 100 cm. On the wetter margins, **it has a transition to the moist deciduous, while on the drier margins to thorn forests**. These forests are found in rainier areas of the Peninsula and the plains of Uttar Pradesh and Bihar. In the higher rainfall regions of the Peninsular plateau and the northern Indian plain, **these forests have a parkland landscape with open stretches in which teak and other trees interspersed with patches of grass are common**. As the dry season begins, the trees shed their leaves completely and the forest appears like a vast grassland with naked trees all around. **Tendu, palas, amaltas, bel, khair, axlewood,** etc. are the common trees of these forests. **In the western and southern part of Rajasthan, vegetation cover is very scanty due to low rainfall and overgrazing.**

The most extensive kind of forest is tropical dry deciduous and second is tropical moist deciduous.

Do you know?

- Tropical thorn forests occur in the areas which receive rainfall less than 50 cm. These consist of a variety of grasses and shrubs.

- In these forests, plants remain leafless for most part of the year and give an expression of scrub vegetation.
- Tussocky grass grows upto a height of 2 m as the under growth.

THINK!

- Ecological services provided by Tropical forests.

Q.2) Consider the following vegetations.

1. Teak and sal
2. Blue pine and spruce
3. Chinar and walnut
4. Mosses and lichens

Which of the below mentioned code best depicts the succession (with respect to increase in altitude) of vegetation in northern montane forest of India?

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

Q.2) Solution (c)

The Himalayan ranges show a succession of vegetation from the tropical to the tundra, which change in with the altitude. **Deciduous forests (teak and sal) are found in the foothills of the Himalayas.**

It is succeeded by the wet temperate type of forests between an altitude of 1,000-2,000 m. In the higher hill ranges of northeastern India, hilly areas of West Bengal and Uttaranchal, evergreen broad leaf trees such as oak and chestnut are predominant. Similarly, the **chinar and the walnut, which sustain the famous Kashmir handicrafts, belong to this zone.**

Blue pine and spruce appear at altitudes of 2,225-3,048 m. **At many places in this zone, temperate grasslands are also found.**

Silver firs, junipers, pines, birch and rhododendrons, etc. occur between 3,000-4,000 m. However, these pastures are used extensively for transhumance by tribes like the Gujjars, the Bakarwals, the Bhotiyas and the Gaddis.

At higher altitudes, mosses and lichens form part of the tundra vegetation.

Do you know?

- Sholas are the local name for patches of **stunted temperate montane forest** found in valleys amid **rolling grassland in the higher montane regions of South India**. These patches of shola forest are found mainly in the valleys and are usually separated from one another by undulating montane grassland. **The shola and grassland together form the shola-grassland complex or mosaic.**

THINK!

- Sacred groves.

Q.3) Which of the following are the objectives of the social forestry?

1. Increasing Forest Area and Restoring Ecological Balance
2. To release cow-dung as manure for increasing agricultural production
3. Social forestry helps achieve a balanced and viable land use by checking soil erosion
4. Generation of Employment

Select the correct answer using the codes given below.

a) 1, 3 and 4 only
b) 1 and 3 only
c) 1 and 4 only
d) All the above

Q.3) Solution (d)

Increasing Forest Area and Restoring Ecological Balance:

- Moisture conservation—trees take water from the lower soil strata and bring it to the upper layers through long tap root system and, also, trees check evaporation of water;
- Soil conservation—trees help in checking erosion by wind and water;
- Natural habitat conservation—trees provide habitat to many birds and animals, some of which are agro-friendly.

Meeting Basic Rural Needs:

- Social forestry satisfies the basic rural needs referred to as 'five Fs'—food, fuel, fodder, fertilizer (green manure) and fiber. The large-scale depletion of easily accessible forests has resulted in acute scarcity of fuel-wood and fodder.

- What is disturbing is that the deficit in fuel wood is met by using cow-dung cakes, thus wasting a rich and cheap source of manure. So, the social forestry aims to release cow-dung as manure for increasing agricultural production.
- Trees also supply the raw material for various small and village industries through small timber and minor forest produce.

Ensuring Better Land Use:

- Social forestry helps achieve a balanced and viable land use by checking soil erosion, facilitating reclamation of marginal lands, checking waterlogging and by bringing about monolithic integration of forestry, agriculture and animal husbandry.

Generation of Employment:

- Social forestry operations have the potential of improving the employment situation in rural areas especially during the lean agricultural season. This helps in stabilizing incomes of weaker sections of Society.

Controlling Pollution:

- Trees are known to absorb harmful gases and release oxygen. This way they help reduce air pollution especially in urban areas.

Do you know?

Effect of Social Forestry in India

- **Participation of local people:** Indifferent village people become very active when they are involved in this type of development projects, e.g., Arabari Project in West Bengal where local people have developed wonderful, sustainable afforestation project.
- **Multiple Production:** Besides afforestation, fodder, vegetables and other agro-products become lucrative in the domestic market.
- **Variation:** The age-old monotonous agro-practice failed to inspire cultivators while this type of creative, experimental activities draw tremendous enthusiasm.
- **All-round Economic Development:** A sustainable economic independence may be achieved by rural units that, in turn, may lead to integrated village development by the villagers themselves.

THINK!

- Farm forestry.

Q.4) Consider the following pairs

Biosphere reserve	National parks/wild life sanctuary

1. Nilgiri	Nagarhole national park
2. Pachmarhi	Satpura national park
3. Amarkantak	Achanakmar Wildlife Sanctuary

Which of the above pairs is/are correctly matched?

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

Q.4) Solution (d)

The Nilgiri Biosphere Reserve is an International Biosphere Reserve in the Western Ghats and Nilgiri Hills ranges of South India. The Nilgiri Sub-Cluster is a part of the Western Ghats, which was declared a World Heritage Site by UNESCO in 2012. **It includes the Aralam, Mudumalai, Mukurthi, Nagarhole, Bandipur and Silent Valley national parks,** as well as the **Wayanad and Sathyamangalam wildlife sanctuaries.**

The Pachmarhi Biosphere Reserve is a non-use conservation area and biosphere reserve in the Satpura Range of Madhya Pradesh state in central India. The biosphere reserve's total area is 4,926.28 square kilometres (1,217,310 acres). It includes three wildlife conservation units:

- Bori Sanctuary
- Pachmarhi Sanctuary
- **Satpura National Park**

Satpura National Park is designated as the core zone and the remaining area including the Bori and Pachmarhi sanctuaries, serves as the buffer zone.

The Achanakmar-Amarkantak Biosphere Reserve is a biosphere reserve in India that extends across the states of Madhya Pradesh and Chhattisgarh. The protected area of **the Achanakmar Wildlife Sanctuary is located in the Bilaspur district within the Biosphere Reserve.**

Do you know?

- **Simlipal National Park** is a national park and a tiger reserve in the Mayurbhanj district in the Indian state of Odisha. It is part of the **Similipal-Kuldiha-Hadgarh Elephant Reserve** popularly known as Mayurbhanj Elephant Reserve, which includes three protected areas — Similipal Tiger Reserve, Hadgarh Wildlife Sanctuary and Kuldiha Wildlife Sanctuary.

- This reserve is part of the UNESCO World Network of Biosphere Reserves since 2009.

THINK!

- Biosphere reserves which are also tiger reserves and National parks.

Q.5) Consider the following statements about 'Mangrove for Future'.

1. It is being coordinated by UNESCO and International Union for the Conservation of Nature (IUCN).
2. The initiative is exclusively only for the protection and conservation of mangroves.

Which of the above statements is/are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.5) Solution (d)

Mangroves for the Future (MFF) is a unique partner-led initiative **to promote investment in coastal ecosystem conservation** for sustainable development. **Co-chaired by IUCN and UNDP,** MFF provides a platform for collaboration among the many different agencies, sectors and countries which are addressing challenges to coastal ecosystem and livelihood issues. **The goal is to promote an integrated ocean-wide approach to coastal management and to building the resilience of ecosystem-dependent coastal communities.** MFF builds on a history of coastal management interventions before and after the 2004 Indian Ocean tsunami. It initially focused on the countries that were worst affected by the tsunami -- India, Indonesia, Maldives, Seychelles, Sri Lanka and Thailand. More recently it has expanded to include Bangladesh, Cambodia, Myanmar, Pakistan and Viet Nam.

Mangroves are the flagship of the initiative, **but MFF is inclusive of all types of coastal ecosystem,** such as coral reefs, estuaries, lagoons, sandy beaches, seagrasses and wetlands.

Do you know?

- Mangroves have been reported to be able **to help buffer against tsunami, cyclones, and other storms.** One village in Tamil Nadu was protected from tsunami destruction—**the villagers in Naluvedapathy planted 80,244 saplings to get into the Guinness Book of World** Records. This created a kilometre-wide belt of trees of various varieties. When the tsunami struck, much of the land around the village was flooded, but the village itself suffered minimal damage.

THINK!

- Mangrove map of India.

Q.6) Consider the following statements about Apatani tribe.

1. They are one of the major ethnic groups of south-western Himalayas.
2. The community has evolved a unique skill of rice-fish cultivation where along with paddy, fish is also reared on the fields.
3. Apatani Tribal Cultural Landscape is one of the UNESCO World Heritage Sites for 'extremely high productivity' and 'unique; ways of preserving ecology.

Which of the above statements is/are correct?

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

Q.6) Solution (b)

Apatani tribe

They are one of the major ethnic groups of **eastern Himalayas.**

The tribe is known for their colorful culture with various festivals, intricate handloom designs, skills in cane and bamboo crafts, **and vibrant traditional village councils called bulyañ.**

The community has evolved a **unique skill of rice-fish cultivation** where along with paddy, fish is also reared on the fields.

Apatani Tribal Cultural Landscape is **in tentative list of UNESCO World Heritage Sites** for 'extremely high productivity' and 'unique; ways of preserving ecology.

Do you know?

- The Apatanis, the tribe inhabiting Ziro valley (Arunachal Pradesh) are known for their effective traditional village council called bulyañ, which supervises, guides and have legal oversight over the activities of individuals that affect the community as a whole. They work by addressing to the conscience of the people rather than by instilling fear of the law, and by promoting prevention of unlawful activities rather than by punitive actions. Preservation of such an effective socio-legal system is of

special value when the formal justice systems of modern times have often come up for criticism.

THINK!

- Major tribes of India.

(Source: http://whc.unesco.org/en/tentativelists/5893/)

Q.7) Consider the following statements.

1. The National Tiger Conservation Authority is a statutory body.
2. It was constituted under enabling provisions of the Environment (Protection) Act, 1972.
3. 'Project Tiger' is a Centrally Sponsored Scheme for both in-situ and ex-situ conservation of tigers in designated tiger reserves.

Which of the above statements is/are correct?

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

Q.7) Solution (a)

The National Tiger Conservation Authority is a **statutory body under the Ministry of Environment, Forests and Climate Change** constituted under enabling provisions of the **Wildlife (Protection) Act, 1972,** as amended in 2006, for strengthening tiger conservation, as per powers and functions assigned to it under the said Act.

The National Tiger Conservation Authority has been fulfilling its mandate within the ambit of the Wildlife (Protection) Act, 1972 for strengthening tiger conservation in the country by retaining an oversight through advisories/normative guidelines, based on appraisal of tiger status, ongoing conservation initiatives and recommendations of specially constituted Committees. '**Project Tiger' is a Centrally Sponsored Scheme of** the Environment, Forests and Climate Change, providing funding support to tiger range States**, for in-situ conservation of tigers in designated tiger reserves,** and has put the endangered tiger on an assured path of recovery by saving it from extinction, as revealed by the recent findings of the All India tiger estimation using the refined methodology.

Do you know?

- The **Global Tiger Initiative (GTI)** was launched in 2008 as a global alliance of governments, international organizations, civil society, the conservation and scientific communities and the private sector, with the aim of working together to save wild tigers from extinction. **In 2013, the scope was broadened to include Snow Leopards.**

THINK!

- Project elephant.

Q.8) Which of the following statements are correct regarding Shola Forest of India?

1. They are mountain forest found in Upper reaches of Himalayas.
2. They are evergreen forests with Coniferous vegetation.
3. They are found 2000 m above sea level.

Select the code from following:

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

Q.8) Solution (c)

Shola Forest

Shola forests are tropical Montane forests found in the valleys separated by rolling grasslands only in the higher elevations. They are found only in South India in the Southern Western Ghats. The shola forests are patches of forests that occur only in the valleys where there is least reach of the fog and mist. Other parts of the mountains are covered in grasslands. The trees never grow on the mountain tops. This is such a unique landscape formation that is native only to the southern Western Ghats. The word Shola is derived from the Tamil language word □□□□ (pronunciation: cÕlai) meaning grove.

The Shola forests are generally said to be found in altitudes above 2000 metres of sea-level. Although they are found from altitudes higher than 1600 metres. Shola forests are a native only to the Southern Western Ghats. They are found only in the high altitude mountains of the states Karnataka, Kerala and Tamilnadu. Nowhere else in the world exist such a kind of forests.

The Shola forests are very rich in bio-diversity when it comes to plants. There are at least 25 types of trees that dominate these forests in the Nilgiri Hills. Due to high isolation and unique climatic conditions, the Shola forests are characterised by high endemism. The species of plants and animals found here are native to this region (this climatic region to be more specific) and such species cannot be found anywhere else in the world.

Think

- Western Ghats
- Tropical Evergreen Forests in India

Q.9) India is currently in 3rd stage of demographic transition according to Demographic Transition Theory. Which of the following factors are considered in the theory to predict the change in population?

1. Crude Birth Rate
2. Crude Death Rate
3. Migration

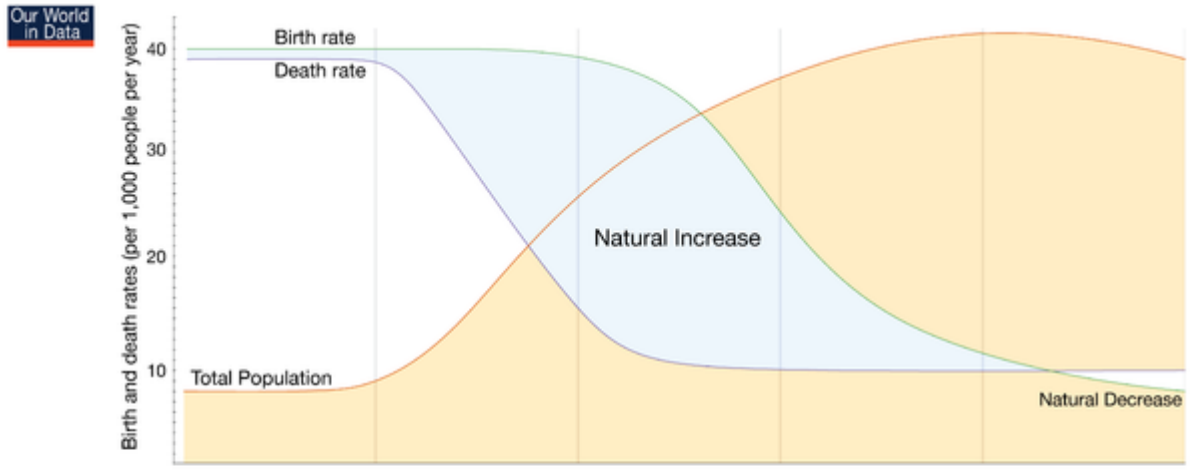
Select the code from following:

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

Q.9) Solution (a)

Demographic Transition Theory

Demographic transition (DT) is the transition from high birth and death rates to lower birth and death rates as a country or region develops from a pre-industrial to an industrialized economic system. The theory was proposed in 1929 by the American demographer Warren Thompson, who observed changes, or transitions, in birth and death rates in industrialized societies over the previous 200 years.



	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Birth rate	High	High	Falling	Low	Very low
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Stable or slow increase	Stable or slow decrease

The transition involves four stages, or possibly five.

- In stage one, pre-industrial society, death rates and birth rates are high and roughly in balance. All human populations are believed to have had this balance until the late 18th century, when this balance ended in Western Europe. In fact, growth rates were less than 0.05% at least since the Agricultural Revolution over 10,000 years ago. Population growth is typically very slow in this stage, because the society is constrained by the available food supply; therefore, unless the society develops new technologies to increase food production (e.g. discovers new sources of food or achieves higher crop yields), any fluctuations in birth rates are soon matched by death rates.
- In stage two, that of a developing country, the death rates drop quickly due to improvements in food supply and sanitation, which increase life expectancies and reduce disease. The improvements specific to food supply typically include selective breeding and crop rotation and farming techniques. Other improvements generally include access to ovens, baking, and television. For example, numerous improvements in public health reduce mortality, especially childhood mortality. Prior to the mid-20th century, these improvements in public health were primarily in the areas of food handling, water supply, sewage, and personal hygiene. One of the variables often cited is the increase in female literacy combined with public health education programs which emerged in the late 19th and early 20th centuries. In Europe, the death rate decline started in the late 18th century in northwestern

Europe and spread to the south and east over approximately the next 100 years. Without a corresponding fall in birth rates this produces an imbalance, and the countries in this stage experience a large increase in population.

- In stage three, birth rates fall due to various fertility factors such as access to contraception, increases in wages, urbanization, a reduction in subsistence agriculture, an increase in the status and education of women, a reduction in the value of children's work, an increase in parental investment in the education of children and other social changes. Population growth begins to level off. The birth rate decline in developed countries started in the late 19th century in northern Europe. While improvements in contraception do play a role in birth rate decline, it should be noted that contraceptives were not generally available or widely used in the 19th century and as a result likely did not play a significant role in the decline then. It is important to note that birth rate decline is caused also by a transition in values; not just because of the availability of contraceptives.
- During stage four there are both low birth rates and low death rates. Birth rates may drop to well below replacement level as has happened in countries like Germany, Italy, and Japan, leading to a shrinking population, a threat to many industries that rely on population growth. As the large group born during stage two ages, it creates an economic burden on the shrinking working population. Death rates may remain consistently low or increase slightly due to increases in lifestyle diseases due to low exercise levels and high obesity and an aging population in developed countries. By the late 20th century, birth rates and death rates in developed countries leveled off at lower rates.
- Some scholars break out, from stage four, a "stage five" of below-replacement fertility levels. Others hypothesize a different "stage five" involving an increase in fertility.

As with all models, this is an idealized picture of population change in these countries. The model is a generalization that applies to these countries as a group and may not accurately describe all individual cases. The extent to which it applies to less-developed societies today remains to be seen. Many countries such as China, Brazil and Thailand have passed through the Demographic Transition Model (DTM) very quickly due to fast social and economic change. Some countries, particularly African countries, appear to be stalled in the second stage due to stagnant development and the effect of AIDS.

Q.10) The scale of a map defines the details of a map. Consider the following statements regarding the Scale of map:

1. Smaller the scale smaller area it covers

2. Smaller the scale, larger area it covers
3. Larger the scale, more details it represents.
4. Larger the scale, more generalized it is.

Which of the above statements are correct?

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

Q.10) Solution (b)

Scale of Maps

A map is classified as small scale or large scale or sometimes medium scale. Small scale refers to world maps or maps of large regions such as continents or large nations. In other words, they show large areas of land on a small space. They are called small scale because the representative fraction is relatively small.

Large scale maps show smaller areas in more detail, such as county maps or town plans might. Such maps are called large scale because the representative fraction is relatively large. For instance a town plan, which is a large scale map, might be on a scale of 1:10,000, whereas the world map, which is a small scale map, might be on a scale of 1:100,000,000.

The following table describes typical ranges for these scales but should not be considered authoritative because there is no standard:

Classification	Range	Examples
large scale	1:0 – 1:600,000	1:0.00001 for map of virus; 1:5,000 for walking map of town
medium scale	1:600,000 – 1:2,000,000	Map of a country
small scale	1:2,000,000 – 1:∞	1:50,000,000 for world map; 1:1021 for map of galaxy

The terms are sometimes used in the absolute sense of the table, but other times in a relative sense. For example, a map reader whose work refers solely to large-scale maps (as tabulated above) might refer to a map at 1:500,000 as small-scale.

In the English language, the word large-scale is often used to mean "extensive". However, as explained above, cartographers use the term "large scale" to refer to less extensive maps –

those that show a smaller area. Maps that show an extensive area are "small scale" maps. This can be a cause of confusion.

Q.11) Which of the following statements are correct regarding Nucleated Settlements in India?

1. They are generally found in arid and less fertile regions.
2. The main reason behind nucleated settlements is defence from wild animals and other communities as well as to use the agricultural land to the maximum.
3. Population density in nucleated settlement is low.

Select the code from below:

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

Q.11) Solution (b)

On the basis of number of villages, hamlets and number of occupancy units, settlements are classified as

1. compact,
2. semi-compact,
3. hamleted and
4. dispersed or scattered type.

Compact settlements:

If the number of villages equals the number of hamlets in an area unit, the settlement is designated as compact. Such settlements are found throughout the plateau region of Malwa, in the Narmada Valley, Nimar upland, large parts of Rajasthan, paddy lands in Bihar, Uttar Pradesh, Vindhyan Plateau and several other cultivated parts of India.

In such villages all the dwellings are concentrated in one central site. The inhabitants of the village live together and enjoy the benefits of community life. Such settlements range from a cluster of about thirty to hundreds of dwellings of different forms, sizes and functions. Their size varies from 500 to 2,500 persons in sparsely populated parts like Rajasthan to more than 10,000 in the Ganga plain.

Compact settlements developed by communities to protect themselves from attack of wild animals and other communities. They also got developed to utilise the agricultural land to the maximum.

Q.12) Consider the following statements regarding population density according to 2011 census:

1. Bihar has the highest population density amongst all states.
2. Chandigarh has the highest population density amongst all UTs.

Which of the above statements are correct?

a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2

Q.12) Solution (a)

Note: Delhi has highest population density amongst UTS.

The table given below will provide a clear idea about the population density of India, its different states, and union territories:

Population Density of India

Serial No.	India/ States/UT	2001	2011
-	INDIA	324	382
1	Jammu and Kashmir	99	56
2	Himachal Pradesh	109	123
3	Punjab	482	550
4	Chandigarh (UT)	7903	9252
5	Uttaranchal	159	189
6	Haryana	477	573
7	Delhi (UT)	9294	9340
8	Rajasthan	165	201
9	Uttar Pradesh	689	828
10	Bihar	880	1102

11	Sikkim	76	86
12	Arunachal Pradesh	13	17
13	Nagaland	120	119
14	Manipur	107	122
15	Mizoram	42	52
16	Tripura	304	350
17	Meghalaya	103	132
18	Assam	340	397
19	West Bengal	904	1030
20	Jharkhand	338	414
21	Orissa	236	269
22	Chhatisgarh	154	189
23	Madhya Pradesh	196	236
24	Gujarat	258	308
25	Daman & Diu (UT)	1411	112
26	Dadra & Nagar Haveli (UT)	449	491
27	Maharashtra	314	365
28	Andhra Pradesh	275	308
29	Karnataka	275	319
30	Goa	363	394
31	Lakshadweep(UT)	1894	2013
32	Kerala	819	859
33	Tamil Nadu	478	555
34	Pondicherry (UT)	2029	2598
35	Andaman and Nicobar Islands(UT)	43	46

Q.13) Which of the following information is given by population pyramid?

1. Distribution of population according to age brackets
2. Number of male and female in a population
3. Number of children in the population

Select the code from below:

a) 1 and 2

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

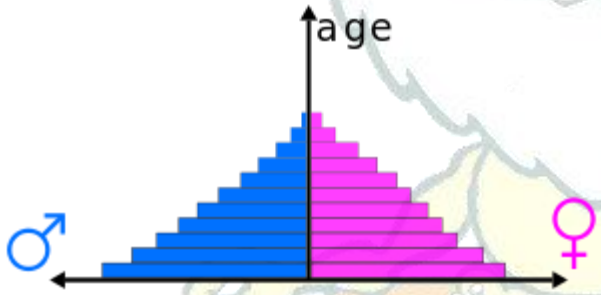
Q.13) Solution (d)

Population Pyramid

A population pyramid, also called an "age pyramid", is a graphical illustration that shows the distribution of various age groups in a population (typically that of a country or region of the world), which forms the shape of a pyramid when the population is growing. This tool can be used to visualize and age composition of a particular population.

Population pyramids are often viewed as the most effective way to graphically depict the age and distribution of a population, partly because of the very clear image these pyramids represent.

A great deal of information about the population broken down by age and sex can be read from a population pyramid, and this can shed light on the extent of development and other aspects of the population. A population pyramid also tells how many people of each age range live in the area. There tends to be more females than males in the older age groups, due to females' longer life expectancy.



Population pyramid gives a clear picture of how a country transitions from high fertility to low fertility rate. The population pyramid here indicates stage 2 on the demographic transition. The broad base of the pyramid means the majority of population lies between ages 0–14, which tells us that the fertility rate of the country is high and above population sub-replacement fertility level. There is a higher dependency ratio of younger population over the working population. Moreover, there is lesser older population due to shorter life expectancy which is around 60 years.

Think

How is population pyramid of a developed country different from a developing country.

Q.14) Which of the following Biosphere reserves of India has become the first Mixed UNESCO World Heritage site in India?

a) Panna
b) Achnakmar Amarkantak
c) Great Nicobar
d) Kanchendzonga

Q.14) Solution (d)

Kanchedzonga/ Kanchenjunga Biosphere spere

Kanchenjunga National Park also Kanchenjunga Biosphere Reserve is a National Park and a Biosphere reserve located in Sikkim, India. It was inscribed to the UNESCO World Heritage Sites list on July 17, 2016, becoming the first "Mixed Heritage" site of India. The park gets its name from the mountain Kangchenjunga (alternative spelling Kangchendzonga) which is 8,586 metres (28,169 ft) tall, the third-highest peak in the world. The total area of this park is 849.5 km2 (328.0 sq mi).

There are many glaciers in the park including the Zemu glacier. Animals like musk deer, snow leopard, Clouded Leopard, and Himalayan tahr all make their home in this park.

Think

- Biosphere reserves of India which are in Man and Biosphere program

Q.15) Match List I with List II and select the correct answer using the code given below the Lists:

List I ***(Vulnerable tribes)***	**List II** ***(Region/State)***
1. Juang	A. Tamil Nadu
2. Saharia	B. Odisha
3. Codava	C. Rajasthan
4. Toda	D. Karnataka

Code:

1-2-3-4

a) B-C-D-A
b) B-C-A-D

c) D-B-C-A
d) A-C-D-B

Q.15) Solution (a)

Correct answer

Juang : : Odisha
Saharia : : Rajasthan
Codava : : Karnataka
Toda : : Tamil Nadu

In News:

Juang tribe was in news. Nineteen Juang tribal children had died in the last three months due to acute malnutrition-related diseases in inaccessible hamlets atop the Nagada hills, in Odisha's Jajpur district.
Source: http://www.thehindu.com/news/national/The-lost-tribe-of-Odisha/article14553424.ece

A recent Anthropological Survey of India (AnSI) publication has brought to the fore startling revelations about the Particularly Vulnerable Tribal Groups (PVTGs) in the country including the fact that no base line surveys have been conducted among more than half of such groups.

Refer below articles and identify different vulnerable tribes and associated region/state.

Source: http://www.thehindu.com/news/national/vulnerable-tribes-lost-in-a-classification-trap/article17894997.ece

http://www.thehindu.com/news/cities/Vijayawada/in-sri-lanka-this-tribe-speaks-telugu/article22810325.ece

Q.16) Match List I with List II and select the correct answer using the codes given.

List-I (Timber)	**List-II (Country)**
1. Oak	A. Myanmar
2. Douglas fir	B. Canada
3. Mahogany	C. Mexico
4. Teak	D. Honduras

Codes:

1 – 2 – 3 – 4

a) C – B – A – D
b) B – C – D – A
c) B – C – A – D
d) C – B – D – A

Q.16) Solution (d)

Correct answer:

Oak : : France
Douglas fir : : Canada
Mahogany : : Honduras
Teak : : Myanmar

Oak

An oak is a tree or shrub native to the Northern Hemisphere, and includes deciduous and evergreen species extending from cool temperate to tropical latitudes in the Americas, Asia, Europe, and North Africa. North America contains the largest number of oak species, with approximately 90 occurring in the United States, while Mexico has 160 species of which 109 are endemic. The second greatest center of oak diversity is China, which contains approximately 100 species.

Douglas fir

P. menziesii, commonly known as Douglas fir, is a coniferous evergreen species native to Canada and the United States. It is the most exploited timber species in North America and one of the most important timber species globally. It commonly grows to 250 feet in height and 6 feet in diameter and lives more than 500 years. It is an important species to its ecosystem, providing habitat and food for small mammals.

Mahogany

Mahogany is a kind of wood—the straight-grained, reddish-brown timber of three tropical hardwood species of the genus Swietenia, indigenous to the Americas, part of the pantropical chinaberry family, Meliaceae.

Honduran or big-leaf mahogany (Swietenia macrophylla), with a range from Mexico to southern Amazonia in Brazil, the most widespread species of mahogany and the only true mahogany species commercially grown today.

Teak

Teak is a tropical hardwood tree species native to south and southeast Asia, mainly India, Sri Lanka, Indonesia, Malaysia, Thailand, Myanmar and Bangladesh but is naturalised and cultivated in many countries in Africa and the Caribbean. Myanmar's teak forests account for nearly half of the world's naturally occurring teak. Teak is sometimes known as the "Burmese teak".

Q.17) Identify the type of climate by considering below given statements:

1. Dry, warm summer with off- shore trade winds
2. Concentration of rainfall in winter with on-shore westerlies
3. Drought resistant xerophytic plants in an environment deficient in moisture
4. Wide range of citrus fruits are grown here

Choose correct code from the below given options:

a) Warm temperate western margin climate
b) Warm temperate eastern margin climate
c) Hot desert mid latitude climate
d) Steppe climate

Q.17) Solution (a)

Warm temperate western margin climate also called as Mediterranean climate:

- Dry, warm summer with off- shore Trade winds.
- Concentration of rainfall in winter with on-shore Westerlies
- Drought resistant Xerophytic plants in an environment deficient in moisture
- Wide range of Citrus fruits are grown here
- Mediterranean-type climate regions occur roughly between 30° and 40° latitude on the west coasts of continents, where offshore there are cold ocean currents.
- The Mediterranean climate has hot and dry summers and mild-wet winters. The natural vegetation of this biome adapted according to the dry and hot summer conditions.

Q.18) Consider the following statements:

1. It is governed by topography.
2. Large changes in mean temperature occur over short distances.
3. Precipitation types and intensity also vary spatially.

The above characteristics are related with which of the following climate type?

Select the correct code:

a) Polar Climates
b) Cold Snow Forest Climates
c) Highland Climates
d) Tundra Climate

Q.18) Solution (c)

Highland climates are governed by topography. In high mountains, large changes in mean temperature occur over short distances. Precipitation types and intensity also vary spatially across high lands. There is vertical zonation of layering of climatic types with elevation in the mountain environment.

Q.19) The following options lists the tribes with their respective climatic region.

1. Inuits - Hot desert
2. Hausa - Sudan type climate
3. Bedouin - Tundra
4. Pygmies - Equatorial

Which of the given above pairs is/are correctly matched?

a) 1 only
b) 1 and 4 only
c) 2 and 4 only
d) None

Q.19) Solution (c)

Explanation:
Hausa - Sudan type climate (Tropical savannah)
Inuits - Tundra
Bedouin – Hot desert (Arabia)
Pygmies - Equatorial

Q.20) Consider the following statements:

1. These regions have a mean monthly temperature which remains always around 26^{o}C with little variation and no winters.

2. These regions record the heaviest rainfall on this planet with over 20^0 centimeters which is well distributed throughout the year.
3. Due to substantial heat the mornings are bright and sunny with high evaporation.
4. These regions receive heavy convectional rain in the afternoon from the towering cumulonimbus clouds.

The above features are of which type of climate?

a) Humid Sub-tropical climate
b) Equatorial Climate
c) Tropical Savanna Climate
d) Laurentian climate

Q.20) Solution (b)

Characteristics of Equatorial Climates

- Regions with this climate experience high temperatures all year round. The average monthly temperatures are about 26 – 28 degrees Celsius. The annual temperature range (the difference between the average temperature of the hottest and coldest months) is very small. The annual temperature range may be as low as 3 degrees Celsius. The diurnal or daily temperature range (the difference between the highest temperature in the day and the lowest temperature at night) is usually greater. Humidity is usually very high.
- Another major characteristic of this climate is the high rainfall. These regions usually experience 200 centimeter of rainfall or more in a year. Rainfall is high for most of the year. Many equatorial regions are affected by the ITCZ. As the ITCZ passes over these areas it brings heavy rainfall and thunderstorms. In some areas, the ITCZ causes two periods of very heavy rainfall every year. One occurs when the ITCZ crosses these areas on its way north and another occurs when it crosses these areas again on its way south.

Many regions close to the equator experience an equatorial climate. These regions include, the Amazon Basin (South America), the Congo Basin (Africa), Malaysia, Indonesia and some areas in northern Australia.

Q.21) Consider the characteristics of the natural vegetation:

1. These kind of Forests found in areas with Moderate rainfall of 100 to 200 cm per annum
2. Mean annual temperature of about 27 degree C
3. Average relative humidity of 60 to 70 %
4. This type of forest is found in some parts of Odisha and West Bengal

Identify the type of Vegetation from the options given below:

a) Mediterranean Shrublands
b) Tropical wet evergreen Forests
c) Tropical dry evergreen forests
d) Tropical Moist deciduous Forests

Q.21) Solution (d)

Tropical Moist deciduous Forests

- These kind of Forests found in areas with Moderate rainfall of 100 to 200 cm per annum
- Mean annual temperature of about 27 degree C
- Average relative humidity of 60 to 70 %

- This type of forest is found in some parts of Odisha and West Bengal, also found along the Western Ghats surrounding the belt of evergreen forests

Q.22) Consider the following statements about 'Dracunculiasis'

1. It is a Neglected tropical disease (NTD)
2. It is endemic to South America
3. It is spread by drinking water containing Guinea worm larvae

Select the correct statements

a) 1 and 2
b) 2 and 3
c) 1 and 3
d) 1 Only

Q.22) Solution (c)

Dracunculiasis, also called Guinea-worm disease (GWD), is an infection by the Guinea worm. A person becomes infected when they drink water that contains water fleas infected with guinea worm larvae.

Guinea-worm disease is seasonal, occurring with two broad patterns found in endemic areas of Africa, depending on climatic factors.

In the Sahelian zone, transmission generally occurs in the rainy season (May to August).

In the humid savanna and forest zone, the peak occurs in the dry season (September to January).

Neglected tropical diseases (NTDs) are a diverse group of tropical infections which are especially common in low-income populations in developing regions of Africa, Asia, and the Americas. They are caused by a variety of pathogens such as viruses, bacteria, protozoa and helminths.

- Buruli Ulcer
- Chagas disease
- Dengue & Chikungunya
- Dracunculiasis
- Echinococcosis
- Yaws
- Fascioliasis

- African trypanosomiasis
- Leishmaniasis
- Leprosy
- Lymphatic filariasis
- Onchocerciasis
- Rabies
- Schistosomiasis
- Soil-transmitted helminthiasis
- Cysticercosis
- Trachoma

Source: http://www.thehindu.com/todays-paper/tp-opinion/parasite-lost/article19985022.ece

Q.23) India's Distance to Frontier score is 60.7 in 2018. Distance to Frontier score is associated with which of the following organisations?

a) World Economic Forum
b) World Bank
c) World Trade Organisation
d) International Monetary Fund

Q.23) Solution (b)

Distance to Frontier

The distance to frontier score helps assess the absolute level of regulatory performance over time.

It measures the distance of each economy to the "frontier," which represents the best performance observed on each of the indicators across all economies in the Doing Business sample since 2005.

One can both see the gap between a particular economy's performance and the best performance at any point in time and assess the absolute change in the economy's regulatory environment over time as measured by Doing Business.

An economy's distance to frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier. For example, a score of 75 in 2017 means an economy was 25 percentage points away from the frontier constructed from the

best performances across all economies and across time. A score of 80 in 2018 would indicate the economy is improving. Read the methodology, explaining how the ease of doing business rankings and the distance to frontier measure are calculated (PDF).

India's Distance to Frontier score in Doing Business 2018 is 60.7, which means it is around 40 percentage points away from the frontier. This year, New Zealand ranked first with a Distance to Frontier score of 86.5, followed by Singapore with 84.5.

India's Distance to Frontier score improved by 4.7 percentage points in Doing Business 2018 from 56 in Doing Business 2017.

Distance to Frontier scores were introduced in the Doing Business 2015 report.

Source: http://www.thehindu.com/news/national/india-to-hit-ton-in-business-ease-rank/article19940995.ece

Q.24) Which of the following is associated with the 'United Nations Economic and Social Commission for Asia and the Pacific'

1. Incheon Strategy
2. Biwako Millennium Framework
3. Busan Partnership

Select the correct code:

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

Q.24) Solution (b)

Incheon Strategy

- Governments of the ESCAP region gathered in Incheon, Republic of Korea in 2012 to chart the course of the new Asian and Pacific Decade of Persons with Disabilities for the period 2013 to 2022.
- The Governments at the High-level Intergovernmental Meeting adopted the Ministerial Declaration on the Asian and Pacific Decade of Persons with Disabilities, 2013–2022, and the Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific.

- The Incheon Strategy provides the Asian and Pacific region, and the world, with the first set of regionally agreed disability-inclusive development goals.
- The Incheon Strategy will enable the Asian and Pacific region to track progress towards improving the quality of life, and the fulfilment of the rights, of the region's 650 million persons with disabilities, most of whom live in poverty.

http://www.unescap.org/resources/incheon-strategy-%E2%80%9Cmake-right-real%E2%80%9D-persons-disabilities-asia-and-pacific

Biwako Millennium Framework

- BMF for Action Towards an Inclusive, Barrier-Free and Rights-Based Society for Persons with Disabilities in Asia and the Pacific

http://www.unescap.org/resources/biwako-millennium-framework-action-towards-inclusive-barrier-free-and-rights-based-society

Busan Partnership agreement

- Busan Partnership agreement sets out principles, commitments and actions that offer a foundation for effective co-operation in support of international development.
- The Busan Partnership agreement is a consensus that a wide range of governments and organisations have expressed their support for. It offers a framework for continued dialogue and efforts to enhance the effectiveness of development co-operation.

http://www.oecd.org/development/effectiveness/busanpartnership.htm

Source: http://pib.nic.in/newsite/mbErel.aspx?relid=173979

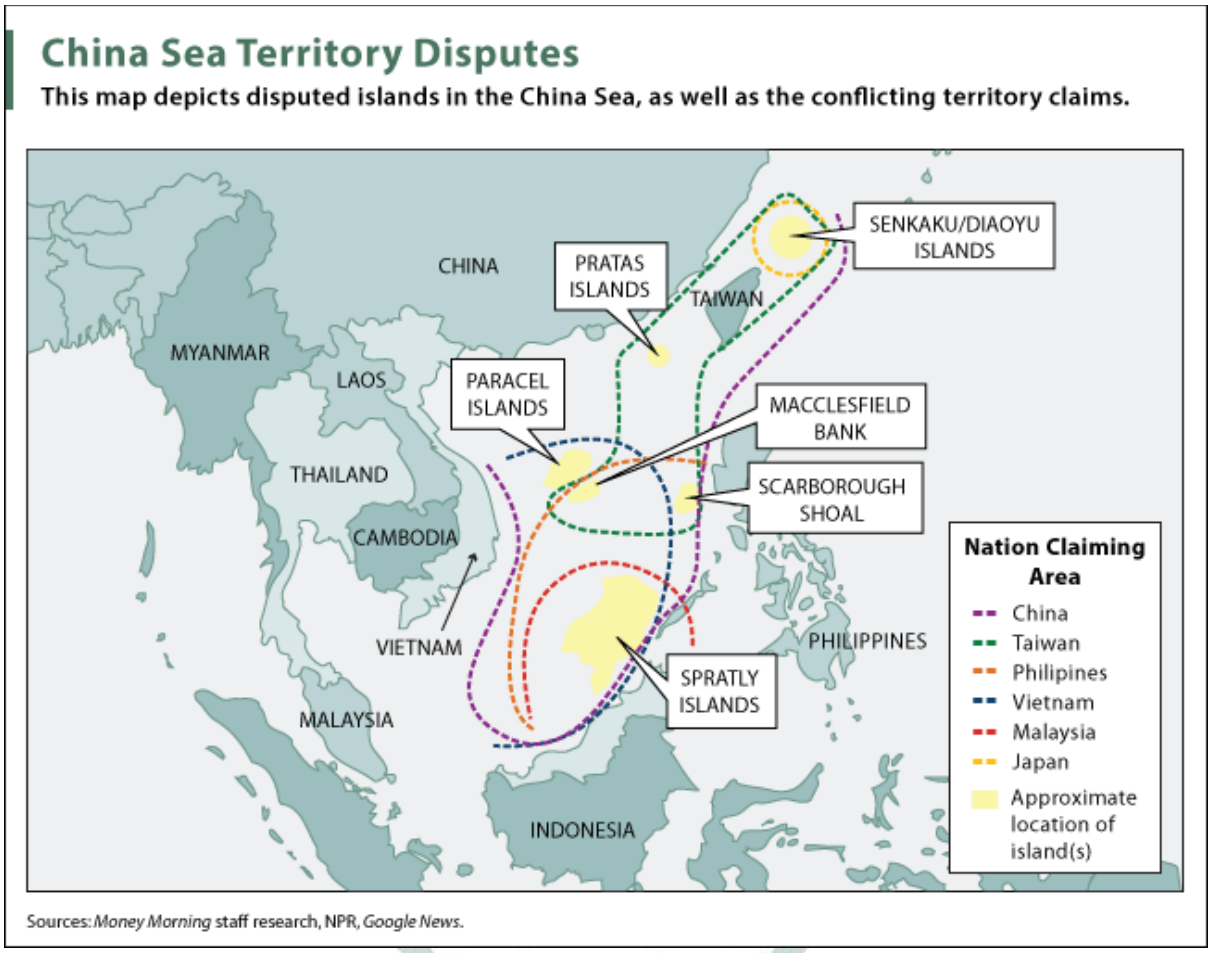
Q.25) Arrange the following islands from North to South

1. Paracel Islands
2. Pratas Islands
3. Senkaku Islands
4. Spartly Islands

Select the correct code:

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

Q.25) Solution (a)



Q.26) Consider the following statements

1. In India, Tropic of Cancer passes through 8 States only
2. In India, 82.5° E longitude passes through 4 States only

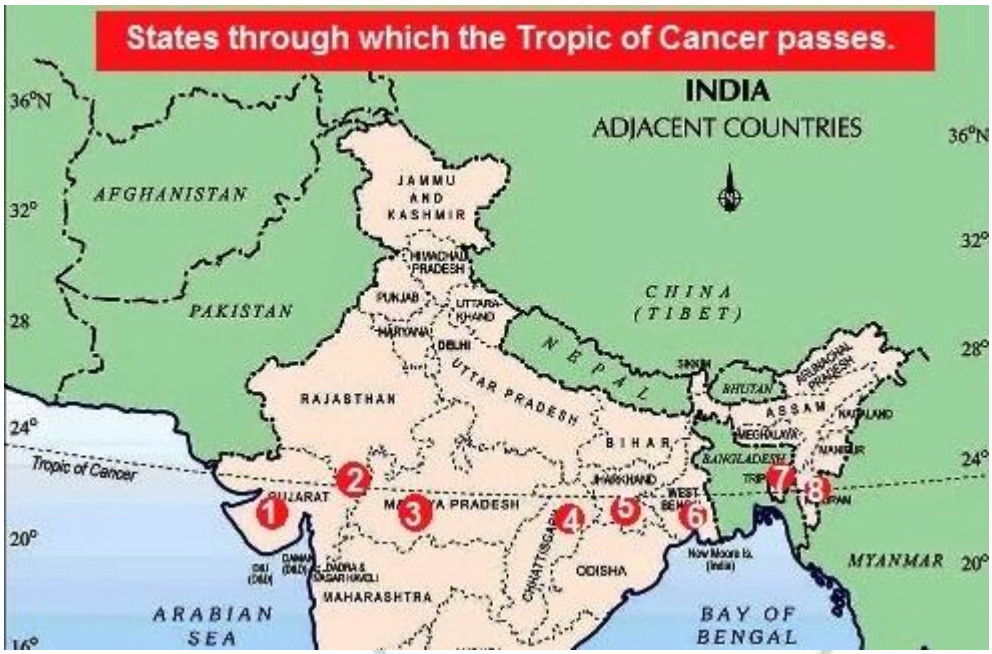
Select the correct statements

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

Q.26) Solution (a)

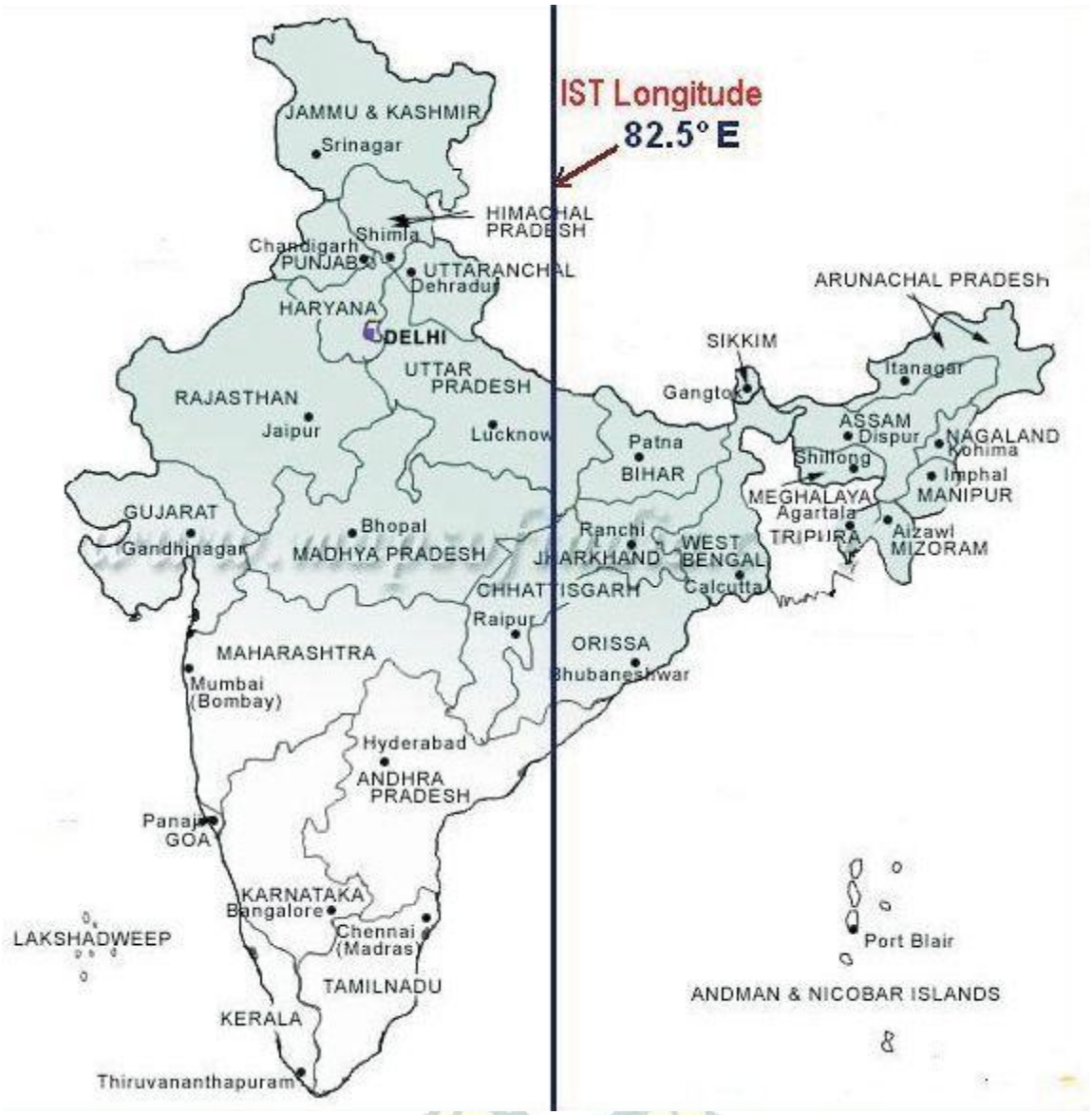
Tropic of Cancer passes through 8 Indian states:

- Gujarat,
- Rajasthan,
- Madya Pradesh,
- Chhattisgarh,
- Jharkhand,
- West Bengal,
- Tripura,
- Mizoram



82.5° E longitude passes through 5 Indian states:

- Uttar Pradesh
- Madhya Pradesh
- Chhattisgarh
- Odisha
- Andhra Pradesh


IST Longitude
82.5° E
JAMMU & KASHMIR
Srinagar
HIMACHAL PRADESH
Shimla
Chandigarh
PUNJAB
UTTARANCHAL
Dehradun
HARYANA
DELHI
UTTAR PRADESH
RAJASTHAN
Jaipur
Lucknow
ARUNACHAL PRADESH
SIKKIM
Gangtok
Itanagar
ASSAM
Dispur
NAGALAND
Kohima
Patna
BIHAR
Shillong
Imphal
MANIPUR
MEGHALAYA
Agartala
TRIPURA
Aizawl
MIZORAM
GUJARAT
Gandhinagar
Bhopal
MADHYA PRADESH
Ranchi
JHARKHAND
WEST BENGAL
Calcutta
CHHATTISGARH
Raipur
ORISSA
Bhubaneshwar
MAHARASHTRA
Mumbai (Bombay)
Hyderabad
ANDHRA PRADESH
Panaji
GOA
KARNATAKA
Bangalore
Chennai (Madras)
LAKSHADWEEP
TAMILNADU
KERALA
Thiruvananthapuram
Port Blair
ANDMAN & NICOBAR ISLANDS