Maximum Marks: 70 Time Allowed: 3 hours

General Instructions:

- i. There are 30 questions in all.
- ii. All questions are compulsory.
- iii. Question numbers 1 to 18 are Multiple Choice Questions (MCQs) carrying 1 mark each.Write only the correct answer in your answer sheets.
- iv. Question numbers 19 to 22 are short answer questions carrying 3 marks each. Answer to each of these questions should not exceed 80-100 words.
- v. Question numbers 23 to 28 are long answer questions carrying 5 marks each. Answer to each of these questions should not exceed 150 words.
- vi. Question numbers 29 and 30 are related to identification or location and labelling of geographical features on maps, carrying 5 marks each.
- vii. Outline map of India and World provided to you must be attached within your answer book.
- viii. Use of template or stencils for drawing outline maps is allowed.

Section A

- 1. Which Indian state has the largest number of district?
 - a. Maharashtra
 - b. Uttar Pradesh
 - c. Bihar
 - d. Madhya Pradesh

Which is India's most polluted city?

- a. Delhi
- b. Mumbai
- c. Chennai
- d. Kolkata
- 2. Which one of the following is main reason for male migration in India?
 - a. Work and employment
 - b. Education
 - c. Business
 - d. Marriage
- 3. Which one of the following has caused the sex ratio of the United Arab Emirates to be lower?
 - a. Selective migration of male working population
 - b. High birth rate of males
 - c. High outmigration of females
 - d. Low birth rate of females

OR

Which one of the following countries has the highest sex ratio in the world?

- a. France
- b. Latvia
- c. United Arab Emirates
- d. Japan
- 4. Who comprise the largest Scheduled Tribe in India?

- a. Santhals
- b. Bhil
- c. Munda
- d. Kalbelia

OR

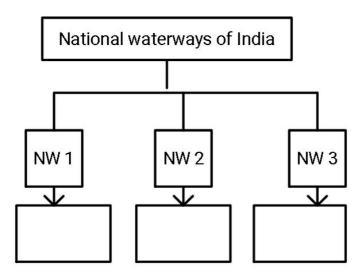
The total number of states in India is at present

- a. 29
- b. 23
- c. 25
- d. 22
- 5. How many time the world's population has increased during the last 500 years?
 - a. 10%
 - b. 8%
 - c. 6%
 - d. 4%
- 6. Which one of the following best describes development?
 - a. A decrease in size
 - b. A positive change in quality
 - c. A simple change in the quality
 - d. An increase in size
- 7. Which one of the following is not a plantation crop?

- a. Sugarcane
- b. Rubber
- c. Wheat
- d. Coffee
- 8. In which one of the following countries co-operative farming was the most successful experiment?
 - a. Denmark
 - b. Russia
 - c. India
 - d. Netherlands
- 9. Growing of flowers is called:
 - a. Floriculture
 - b. Truck farming
 - c. Factory farming
 - d. Mixed farming
- 10. The activities related to rural settlement are
 - a. tertiary activities
 - b. primary activities
 - c. none
 - d. secondary activities
- 11. Which state in India has the lowest density of population?
 - a. Madhya Pradesh

- b. Arunachal Pradesh
- c. Sikkim
- d. Assam
- 12. Which type of settlements are found in northern plains?
 - a. none
 - b. scattered
 - c. clustered
 - d. hamlet
- 13. How many ports are there in India?
 - a. 10
 - b. 9
 - c. 11
 - d. 12
- 14. Which one of the following scholars introduced the concept of Human Development?
 - a. Prof. Amartya Sen
 - b. Dr. Mahbub-ul Haq
 - c. Ratzel
 - d. Ellen C. Semple
- 15. Fill in the blanks:

Complete the question with appropriate answer:

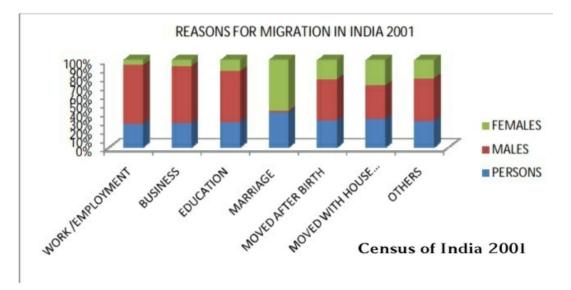


- 16. The Chief Aircraft Manufacturing Factory in India is located in
 - a. Kanpur
 - b. Nasik
 - c. Bangalore
 - d. Delhi
- 17. The per capita annual consumption of steel in India is:
 - a. 30kg
 - b. 31kg
 - c. 32kg
 - d. 33kg
- 18. Which state in India produces the largest quantity of wheat?
 - a. Uttar Pradesh
 - b. Haryana
 - c. None of these

d. Punjab

Section **B**

- 19. What was the intial form of trade in primitive societies?
- 20. Distinguish between deductive and inductive methods of geographical study.
- 21. Study the chart given below and answer the questions that follow:



- i. In 2001 which reason plays a significant role in female migration?
- ii. With the help of the above-given chart analyse male-female migration in India?
- iii. What is the main reason for male migration in India?
- 22. What components are considered as symbols of development?

OR

Explain Western or euro-centric view of development.

Section C

23. What are the features of minerals?

OR

Mention the uses of manganese and its producing states.

24. Study the picture given below and answer the questions that follow:



- What are the consequences that can be seen due to the segregation or fragmentation of a large compact village? Mention some areas where such settlements are found in India.
- ii. What are the main causes of semi-clustered settlement formation in India?
- 25. Explain the features of modern large scale manufacturing.

OR

Large scale industries can earn more profit by reducing cost. Discuss those reasons which are responsible for it.

- 26. Explain the factors which affect the transport services.
- 27. Describe the Atlantic Ocean Routes.

OR

What are the modes by which cyberspace will expand the contemporary economic and social space of humans?

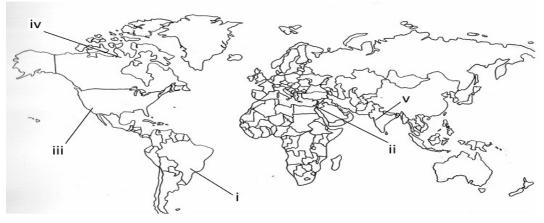
28. Describe the effects and remedies for air pollution.

OR

What are the sources of pollution in the Ganga and the Yamuna? Also give its polluted stretch.

29. On the outline map of India mark and indicate the following features.

- i. State which has the lowest urban population
- ii. Iron and steel plant in Bhadravati
- iii. major seaport in Tuticorin
- iv. Coal mines in Jharia
- v. Cotton textile in Varanasi
- 30. On the given political map of the world, the following five features are shown.Identify these features with the help of the given key and write them on the blanks marked i, ii, iii, iv and v.
 - i. Major sea-port.
 - ii. An important shipping Canal.
 - iii. Industrial region.
 - iv. Areas of subsistence gathering.
 - v. Megacity.



Solution Section A

1. (b) Uttar Pradesh

Explanation: Uttar Pradesh is divided into 75 districts under these 18 divisions: Saharanpur, Moradabad, Bareilly, Lucknow, Devipatan, Basti, Gorakhpur, Meerut, Aligarh, Agra, Kanpur, Faizabad, Azamgarh, Jhansi, Chitrakoot, Allahabad, Varanasi, Mirzapur. Out of this division, Allahabad is the most populous district in Uttar Pradesh.

OR

(a) Delhi **Explanation:** According to the World Health Organization (WHO) Delhi was the most polluted city in the world in 2014. In 2016 WHO downgraded Delhi to eleventh-worst in the urban air quality database. According to one estimate, air pollution causes the death of about 10,500 people in Delhi every year. During 2013-14 peak levels of fine particulate matter (PM) in Delhi increased by about 44%, primarily due to high vehicular and industrial emissions, construction work and crop burning in adjoining states. It has the highest level of the airborne particulate matter.

2. (a) Work and employment

Explanation: Migration is a way to move from one place to another in order to live and work. Male migration in India is due to work and employment.

3. (a) Selective migration of male working populationExplanation: Selective migration of male working population

OR

(b) Latvia **Explanation:** Latvia

4. (a) Santhals

Explanation: Santhals tribe mainly resides in the states of Jharkhand, West Bengal, Bihar, Odisha, Assam. They are one of the largest tribal communities in India. The

Santhal mostly speak Santhali, the one of Adivasi's(tribe) language.

OR

(a) 29

Explanation: The total number of Indian states are 29. These are Andhra Pradesh,Arunachal Pradesh,Assam, Bihar,Chhattisgarh, Goa,Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerela, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha,Punjab, Rajasthan, Sikkim,Tamil Nadu, Telangana, Tripura, Uttarakhand,Uttar Pradesh,West Bengal.

5. (a) 10%

Explanation: 10%

- 6. (b) A positive change in qualityExplanation: A positive change in quality
- 7. (c) Wheat

Explanation: Wheat

8. (a) Denmark

Explanation: Denmark

9. (a) Floriculture

Explanation: Floriculture

10. (b) primary activities

Explanation: Rural settlements are most closely and directly related to land. They are dominated by primary activities such as agriculture, animal husbandry, fishing, etc. The settlements' size is relatively small.

11. (b) Arunachal Pradesh

Explanation: Arunachal Pradesh has the lowest density of population in India. According to 2011 census of India, the total population of Arunachal Pradesh is roughly 1.4 million on an area of 84,000 km², amounting to a population density of about 17 km⁻² far below the Indian average of 370 km⁻².

12. (c) clustered

Explanation: clustered

13. (d) 12

Explanation: 12

- 14. (b) Dr. Mahbub-ul HaqExplanation: Dr. Mahbub-ul Haq
- 15. NW 1- Allahabad- Haldia NW 2- Sadiya- Dhubri NW 3- Kottapuram- Kollam
- 16. (c) Bangalore

Explanation: Hindustan Aeronautics Limited (HAL) is an Indian state-owned aerospace and defence company headquartered in Bangalore, India

17. (c) 32kg

Explanation: 32kg

18. (a) Uttar Pradesh

Explanation: The state of Uttar Pradesh is the largest producer of wheat, accounting for over 34 per cent of the wheat produced in India. The important wheat producing districts of the state of Uttar Pradesh are Meerut, Aligarh, Agra, Muzaffarnagar, Saharanpur, Bulandshahar, Kanpur and Mathura.

Section **B**

19. The initial form of trade in primitive societies was the barter system, where direct exchange of goods took place. In this system if you were a potter and were in need of a plumber, you would have to look for a plumber who would be in need of pots and you could exchange your pots for his plumbing service.

Deductive Method	Inductive Method
In this method, conclusions are reached by the process of reasoning on a given statement.	This method is the process which leads to the formation of law based on uniformity of facts and figures.
This is based on 'from general to particular'.	This is based on 'from particular to general'.
In this method, the experiences are examined to derive a conclusion.	In this method, laws and hypothesis are examined for generalisation.

20.

- 21. i. Marriages is the most common reason for female migration in India. About 65% of females move out of their parental houses following their marriage.
 - ii. On the basis of the chart, it can be seen that the reason for migration of males and females is different. For example, work and employment have remained the main cause for male migration i.e. 38% while it is only 3% for the females. Contrary to this, about 65% of females move out of their parental houses following their marriage. In comparison to these marriage migration of the male, is only 2% in the country.
 - iii. Work and employment is the main cause of male migration (38%).
- 22. Development means "improvement in country's economic and social conditions". More specially, it refers to improvements in way of managing an area's natural and human resources. In order to create wealth and improve people's lives.

The main components of development are Computerisation, industrialisation, efficient transport and communication network, large education system, advanced and modern medical facilities, safety and security of individuals, women empowerment, social welfare etc.

OR

Computerisation, industrialisation, efficient transport and communication network, large education system, advanced and modern medical facilities, safety and security of individuals, etc. are considered as the symbols of development. Every individual, community and government measures its performance or levels of development in relation to the availability and access to some of these things. But, this may be partial and one-sided view of development. It is often called the western or euro-centric view of development.

Section C

- 23. Minerals have certain features:
 - i. A mineral has one specific chemical composition.
 - ii. Minerals are distinguished by various chemical and physical properties.
 - iii. Differences in chemical composition and crystal structure distinguish the various

species, which were determined by the mineral's geological environment when formed.

- iv. Changes in the temperature, pressure, or bulk composition of a rock mass cause changes in its minerals.
- v. The hardness of a mineral defines how much it can resist scratching. This physical property is controlled by the chemical composition and crystalline structure of a mineral.
- vi. Metallic and sub-metallic minerals have high reflectivity like metal; examples of minerals with this lustre are galena and pyrite.
- vii. Colour is the most obvious property of a mineral, but it is often non-diagnostic. It is caused by electromagnetic radiation interacting with electrons.High specific gravity is a diagnostic property of a mineral
- viii. There is an inverse relationship in quality and quantity of minerals: It means that the quantity of high quality minerals is less and quantity of low quality minerals is high. In other words, more is the quantity, less is the quality and less is the quality, more is the quantity.
 - ix. All minerals are exhaustible over time: None of the minerals is a renewable source but many of them can be recycled and re-used.
 - x. These minerals take long time to develop geologically and they cannot be replenished immediately at the time of need: This feature of minerals makes it compulsory to make optimum utilisation of minerals.

OR

Uses:

- i. Manganese is too brittle to be of much use as a pure metal. It is mainly used in alloys, such as steel.
- ii. Steel contains about 1% manganese, to increase the strength and also improve workability and resistance to wear.
- iii. Manganese steel contains about 13% manganese. This is extremely strong and is used for railway tracks, safes, rifle barrels and prison bars.
- iv. Drinks cans are made of an alloy of aluminium with 1.5% manganese, to improve

resistance to corrosion.

- v. Manganese is also used as a catalyst, decolorize the glass that is colored green by iron impurities.
- vi. Manganese sulfate is used to make a fungicide.
- vii. Manganese oxide is a powerful oxidising agent and is used in quantitative analysis. It is also used to make fertilisers and ceramics

Manganese Producing states:

- i. Manganese deposits are found in almost all geological formations, however, it is mainly associated with Dharwar system.
- ii. Orissa is the leading producer of manganese. Major mines in Orissa are located in the central part of the iron ore belt of India, particularly in Bonai, Kendujhar, Sundergarh, Gangpur, Koraput, Kalahandi and Bolangir.
- iii. Karnataka is an another major producer and here the mines are located in Dharwar, Bellary, Belgaum, North Canara, Chikmagalur, Shimoga, Chitradurg and Tumkur.
- iv. Maharashtra is also an important producer of manganese which is mined in Nagpur, Bhandara and Ratnagiri districts.
- v. Andhra Pradesh, Goa, and Jharkhand are other minor producers of manganese.
- i. The consequence of such is that one or more sections of the village society choose or is forced to live a little away from the main cluster or village. In such cases, generally, the land-owning and dominant community occupies the central part of the main village, whereas people of lower strata of society and menial workers settle on the outer flanks of the village.

Such settlements are widespread in the Gujarat plain and some parts of Rajasthan.

- ii. The main causes are the tendency of clustering in a restricted area of dispersed settlement and segregation or fragmentation of a large compact village.
- 25. Important features of modern large scale manufacturing are:
 - i. **Specialisation of Methods of Production:** Under the craft method, only a few pieces of are made to order and hence, the cost is high but in mass

production, production of large quantities of standardised parts by each worker takes place. Id leads to specialisation.

- ii. **Mechanisation:** It refers to using gadgets which accomplish task. Its advanced stage is automation in which machines think and human being is not required anywhere.
- iii. **Technological Innovation:** Technological innovations play an important part in modern manufacturing for quality control, eliminating waste and inefficiency and combating pollution.
- iv. **Vast Capital:** A large amount capital is used in large scale manufacturing. It calls for heavy investment.
- v. **Organisational Structure and Stratification:** Modern manufacturing is characterised by the following:
 - (i) A complex machine technology
 - (ii) Extreme specialisation and division of labour
 - (iii) Vast capital
 - (iv) Large organisation
 - (v) Executive bureaucracy
- vi. **Uneven Geographical Distribution:** Major concentrations of modern manufacturing have flourished in a few places. Those nations where industries are concentrated have become economically and politically powerful. For example, 2.5 sq. km of the American com belt usually includes about four large farms employing about 10-20 workers supporting 50-100 persons. But if it were utilised for an industry, it could employ thousands of workers.

OR

Large scale manufacturing involves a large market, various raw materials, enormous energy, specialised workers, advanced technology, assembly-line mass production and large capital. This kind of manufacturing developed in the last 200 years, in the United Kingdom, north-eastern U.S.A. and Europe. Now it has diffused to almost all over the world. The features are,

i. Access to Market: Industries are located in areas/regions which have high density of population and high purchasing power. These areas provide large market. For example;

(a) Industries are less in remote areas inhabited by a few people.

(b) Whereas, in developed regions of Europe, North America, Japan and Australia industries are more because they provide large global markets and the purchasing power of the people is very high.

(c) The densely populated regions of South and South-east Asia also provide large markets, thus industries are more.

ii. Access to Raw Materials: Industries are located where the raw materials is cheap and easy to transport. For example;

(a) Steel, sugar, and cement industries are based on cheap, bulky and weightlosing material (ores). Therefore, they are located close to the sources of raw materials.

(b) Agro-processing and dairy industries are located close to farms or dairy because the raw material is perishable.

- iii. Access to Labour Supply: Some industries require skilled labour. Therefore, they are located near urban-educational centres where skilled labour is easily available.
- iv. Access to Sources of Energy: Industries which use more power are located close to the source of the energy supply such as the aluminium industry.
- v. Access to Transportation and Communication Facilities: Speedy and efficient transport and communication facilities reduce the cost of transport and management. Therefore, industries are attracted in regions having good transport and communication facilities. For example; Western Europe and eastern North America have a high numbers of industries.
- vi. **Government Policy:** Governments adopt regional policies to promote balanced economic development. Hence, industries are set up on particular areas.
- vii. Access to Agglomeration Economies/Links between Industries: Many industries get benefit from nearness to a leader-industry and other industries. These benefits are termed as agglomeration economies.
 Savings are derived from the linkages which exist between different industries. These factors operate together to determine industrial location.
- 26. Transport services depend on the following factors:
 - i. In selecting the mode of transport, time and cost distance, is the determining factor.

- ii. Demand for transport is influenced by the size of population. The larger the population size, the greater is the demand for transport.
- iii. Routes depend on:
 - (a) Location of cities, towns, villages, industrial centres and raw materials,
 - (b) Pattern of trade between them,
 - (c) Nature of the landscape between them,
 - (d) Types of climate,
 - (e) Funds available for overcoming obstacles along the length of the route
- 27. The Atlantic Ocean Routes is divided into North Atlantic and South Atlantic Routes.

North Atlantic Routes:

- i. The North Atlantic Ocean Route is the busiest ocean route in the world.
- ii. This route faces two greatest industrial regions of the world-north west industrial region in Europe and the north-eastern industrial regions in the U.S.A. and Canada.
- iii. The two regions need interchange of raw material and finished goods across the ocean. Both parts have good ports.
- iv. Textile, chemicals, machinery, fertilizer, steel, etc. are exported to the U.S.A. and Canada.
- v. Foodgrains, raw materials like wood pulp, copper as well as iron and steel are sent to European countries.

South Atlantic Routes:

- i. This ocean route has low importance and is not as busy as the north ocean route.
- ii. On the eastern coast of S. Atlantic are the West African countries and the west European countries and on the western side are the South American countries.
- iii. The ships loaded with meat, coffee, iron ore and manganese ply to the west European countries and from European countries machinery and industrial goods are brought.
- iv. Trade between South America and West African countries is not significant because of the low level of economic development in Africa.

OR

Cyberspace is the world of electronic and digital space that is based on World Wide Web (www). Cyberspace exists everywhere around the globe. The satellite technology and the optic fibre cables made of copper have enabled the creation of cyberspace. The optic cables allow large quantities of data to be transmitted rapidly, securely and in an error-free manner, across long distances. The internet-based technology has imparted rapid connectivity for the free flow of information in real-time. Satellite communication has emerged as a new area in communication.

The world has been turned into a global village by cyberspace. The technology can reach far-flung areas of a country to provide education and deliver goods through egovernance and e-commerce. The economic and social space of people has expanded through e-mail, e-commerce, e-learning, and e-governance. Internet, multi-channel television, world radio, all provide connectivity and reach to people cutting across countries and continents.

- 28. Effects of Air Pollution:
 - i. It causes various respiratory diseases like asthma, sore throat, sneezing, allergic rhinitis, smoky fog over the cities commonly known as smog prevails which may lead to accidents.
 - ii. Air pollution can directly contaminate the surface of bodies of water and soil. This can kill crops or reduce their yield.
 - iii. Acid rain damages plants by changing soil composition; degrades water quality in rivers, lakes and streams; damages crops; and can cause buildings and monuments to decay.
 - iv. Global warming is an environmental phenomenon caused by natural and anthropogenic air pollution. It refers to rising air and ocean temperatures around the world.
 - v. It leads to global warming which creates variation in the rhythmic cycle of seasons.
 - vi. Depletion of the ozone layer is the result of excessive chlorofluorocarbons and carbon dioxide in the atmosphere.

Measures to curb Air Pollution:

- i. Promote afforestation
- ii. Use electrical appliances with four star or five star ratings.
- iii. Use CFC
- iv. Proper chimney should be installed.

- v. By using eco- friendly products in our home.
- vi. Recycle and buy recycled products.
- vii. Support companies that are committed to sustainable manufacturing practices and reducing pollution in the air.
- viii. Support public policies and representative politicians who will work

OR

Sources of pollution in Ganga:

- i. The river flows through 29 cities with populations over 100,000; 23 cities with populations between 50,000 and 100,000, and about 48 towns. A large proportion of the sewage water with higher organic load in the Ganges is from this population through domestic water usage.
- ii. Because of the establishment of numerous industrial cities on the bank of the Ganges like Kanpur, Prayagraj, Varanasi and Patna, countless tanneries, chemical plants, textile mills, distilleries, slaughterhouses, and hospitals prosper and grow along this and contribute to the pollution of the Ganges by dumping untreated waste into it.
- iii. During festival seasons, over 70 million people bathe in the Ganges to clean themselves from their past sins. Some materials like food, waste or leaves are left in the Ganges which are responsible for its pollution.

Sources of pollution in Yamuna:

- i. Discharge of city effluents and wastes from the burgeoning urban population and from the industrial establishments located along its banks.
- ii. Thermal power stations and municipal sewerage systems add to the pollution levels. The present sewage treatment capacity of Delhi is about 120 mgd, but the actual volume of Delhi's sewage is just double of this. This means that some 120 mgd of sewage simply goes untreated into the Yamuna.
- iii. Some of the industries that add to the pollution of the Yamuna include printing, electroplating, soap manufacture, food processing, rubber, plastics, chemicals, and leather tanning.

The polluted stretch of the river Ganga: Downstream of Kanpur, Varanasi, Farakka barrage. The polluted stretch of the river Yamuna: Delhi, Mathura and Agra.



- 30. i. Rio De Janeiro
 - ii. Suez Canal
 - iii. Silicon Valley
 - iv. Nunavat
 - v. Mumbai