Q.1) Which of the following affect the natural population growth of a place?

- 1. Crude Birth Rate
- 2. Crude Death Rate
- 3. Immigration
- 4. Emigration

Choose the correct option:

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

Q.1) Solution (a)

Basic Information:

- Natural population growth is the population increase determined by births and deaths.

 Migration flows are not taken into account.
- Natural increase is the difference between the numbers of births and deaths in a population; the rate of natural increase is the difference between the birthrate and the death rate.
- The rate of population growth is the rate of natural increase combined with the effects of migration. Thus a high rate of natural increase can be offset by a large net out-migration, and a low rate of natural increase can be countered by a high level of net in-migration. Generally speaking, however, these migration effects on population growth rates are far smaller than the effects of changes in fertility and mortality.

Q.2) With reference to "Socio-Economic and Caste Census (SECC)", consider the following statements:

- 1. It was conducted for the first time along with the first synchronous census in India of 1881.
- 2. SECC 2011 has three census components which were conducted by three separate authorities but under the overall coordination of Ministry of Home Affairs.
- 3. The Census under Census Act, 1948 provides a tool to identify beneficiaries of state support while the SECC is portrait of the Indian population.

Which of the above statements is/are not correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1,2 and3

Q.2) Solution (d)

Basic Information:

Census

- The origin of the Census in India goes back to the colonial exercise of 1881.
- Census has evolved and been used by the government, policymakers, academics, and others to capture the Indian population, access resources, map social change, delimitation exercise, etc.

SECC

- SECC was conducted for the first time since 1931.
- SECC is meant to canvass every Indian family, both in rural and urban India, and ask about their:
 - Economic status, so as to allow Central and State authorities to come up with a range of indicators of deprivation, permutations, and combinations of which could be used by each authority to define a poor or deprived person.
 - It is also meant to ask every person their specific caste name to allow the government to re-evaluate which caste groups were economically worst off and which were better off.
- SECC has the potential to allow for a mapping of inequalities at a broader level.

Statement Analysis:

Note: incorrect statements are asked.

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Incorrect

SECC was conducted	for	the	first
time in 1931.			

SECC 2011 has three census components which were conducted by three separate authorities but under the overall coordination of Department of Rural Development in the Government of India.

- The Census provides a portrait of the Indian population, while the SECC is a tool to identify beneficiaries of state support.
- Census in Rural Area has been conducted by the Department of Rural Development (DoRD).
- Census in Urban areas is under the administrative jurisdiction of the Ministry of Housing and Urban Poverty Alleviation (MoHUPA).
- Caste Census is under the administrative control of Ministry of Home Affairs: Registrar General of India (RGI) and Census Commissioner of India.

Q.3) Which of the following is/are correctly matched?

Population Density

Description

1. Arithmetic Density

Total number of people per unit land

2. Physiological Density

Ratio of the number of farmers to the amount of arable land

3. Agricultural Density

In a region, number of people supported by a unit area of arable land

Select the correct option using the codes given below:

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

Q.3) Solution (a)

Basic Information:

Different types of measurement of population density:

- The first method used to measure population density is the arithmetic density, which is the total number of people in any given area as compared to one square unit of land.
- Agricultural density measures the number of farmers specifically on each unit of farmland. This means people who work the earth on specific plots of land that are used for this.
- Physiological density is located right in the middle of these. It measures the total number of people and divides them between the total amount of farmable land. So the amount of land to be used is much smaller than for arithmetic density but the amount of people is much larger than what is used in agricultural density.

All three of these are used to get a more accurate understanding of the population density of any given area, but they will then be used in different ways according to the type.

Q.4) Consider the following statements:

- 1. Khasi language is part of Sino-Tibetan Languages family.
- 2. Female Labour Force Participation Rate of rural area is higher than that of urban.

Which of the above statements is/are correct?

a) 1 only

- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Q.4) Solution (b)

Basic Information:

The speakers of major Indian languages belong to four language families:

Language Family	Languages
Indo-European Family (Aryan)	Hindi, Bengali, Marathi, Urdu, Gujarati, Punjabi, Kashmiri, Rajasthani, Sindhi, Maithili and Odia
Dravidian Family (Dravida)	Kannada, Tamil, Telugu, Malayalam
Austric Family (Nishada)	Kol, Mundari, Nicobari, Khasi , Santhali, Ho, Birhor
Sino-Tibetan family (Kirata)	Nepalese, Bodo, Manipuri

- Labour Force Participation Rate (LFPR): LFPR is defined as the percentage of persons in the labour force (i.e. working or seeking or available for work) in the population.
- **Female Labour Force Participation Rate**: It is the share of working-age women who report either being employed, or being available for work.
- Female labour-force participation in India has declined from 34 per cent in 2006 to 24.8 per cent in 2020, according to a new study.

Statement Analysis:

Statement 1	Statement 2
Incorrect	Correct
Khasi language is part of Austric Family (Nishada).	Female Labour Force Participation Rate of rural area is higher than that of urban and also the decline is greater for rural FLFPR.

Q.5) According to the recently released report 'International Migration 2020 Highlights', by the Population Division of the UN Department of Economic and Social Affairs (UN DESA), which country hosts the largest Indian Diaspora?

- a) United States of America
- b) Saudi Arabia
- c) United Arab Emirates
- d) Canada

Q.5) Solution (c)

Basic Information:

- India has the largest diaspora population in the world with **18 million people** from the country living outside their homeland in 2020.
- The report 'International Migration 2020 Highlights', by the Population Division of the
 UN Department of Economic and Social Affairs (UN DESA) says the spatial distribution of
 transnational populations varies greatly and India's diaspora, the largest in the world, is
 distributed across a number of major countries of destination.
- In 2020, 18 million persons from India were living outside their country of birth. Other countries with a large diaspora population included Mexico and Russia (11 million each), China (10 million) and Syria (8 million).
- India's large diaspora is distributed across the United Arab Emirates (3.5 million), the
 United States of America (2.7 million) and Saudi Arabia (2.5 million). Other countries
 hosting large numbers of Indian migrants included Australia, Canada, Kuwait, Oman,
 Pakistan, Qatar and the United Kingdom, the report said.

Q.6) "It refers to outward expansion of an urban centre towards its periphery. Here, the core of the city shifts to the fringe areas or hinterland. This term was coined by Edward Soja. It leads to the development of the 'city outside a city'." Which of the following best describes the above city?

- a) Flex Cities
- b) Exopolis
- c) Cosmopolis
- d) World City

Q.6) Solution (b)

Basic Information:

Exopolis:

- It is a post-modern large city in which outward expansion of an urban centre is towards its periphery. Here, the core of the city shifts to the fringe areas or hinterland. This term was coined by Soja. It leads to the development of the 'city outside a city' for example in Los Angeles.
- The city that no longer conveys the traditional qualities of cityness.
- Growth of the outer city and city edges and characterized by more urban life.

Q.7) With reference to settlements, consider the following statements:

- 1. Type of settlement implies the degree of dispersion or nucleation of the dwellings.
- 2. Pattern of settlement refers to the geometrical shapes formed by the arrangements of dwellings.
- 3. Bihar has the highest number of villages according to Census of India 2011.

Which of the above statements is/are correct?

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

Q.7) Solution (a)

Basic Information:

Type of settlement

- It implies the degree of dispersion or nucleation of the dwellings.
- They are of three types:
 - ➤ Compact Settlements: A compact settlement is based on farming. These are mostly found in highly productive alluvial plains like Indo-Gangetic Plains, the Hwang Ho Valley, Valley o Nile. The houses are compact and congested with narrow plains.
 - Semi-Compact Settlement: Semi-Compact is a transitional phase in the growth of compact settlement. The emergence is because of the difference of semi-arid regions from humid regions and marginal productive land to that of fertile land. Increase in population cause villages to grow in number of houses. These houses occupy open spaces and lead to semi-compact settlement which ultimately acquires a nucleated settlement.
 - ➤ Dispersed Settlement: These are generally found in hills, plateaus and grasslands. These are found in areas where it is essential that the farmer should live on his own land. Overpopulation is one of the reasons for dispersed settlement.

Pattern of settlement:

- It refers to the geometrical shapes formed by the arrangements of dwellings.
- The rural settlements are classified under following patterns: Rectangular, Linear, Circular, Semi-circular, Star-like, Triangular, and Nebular Pattern. The settlements is linear in valleys and mountainous areas, rectangular in fertile plains, circular near the lakes and ponds, triangular at cross roads and in exceptional cases it resembles the nebular form and on river terraces it is star-type.

Statement Analysis:

Statement 1	Statement 2	Statement 3
Correct	Correct	Incorrect

As discussed above.	As discussed above.	According to census of India 2011, there are 640,867 villages in the country including uninhabited villages.
		The largest number 106,704 (more than 16.6%) are in Uttar Pradesh alone.

Q.8) With reference to census conducted in India, consider the following statements:

- 1. The reference date of census is taken as 1st March for every state.
- 2. The population count is taken as on sunrise of 1st March.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Q.8) Solution (d)

Basic Information:

Census

- The census provides information on size, distribution and socio-economic, demographic and other characteristics of the country's population.
- A systematic and modern population census, in its present form was conducted nonsynchronously between 1865 and 1872 in different parts of the country.
- However, the first synchronous census in India was held in 1881. Since then, censuses have been undertaken uninterruptedly once every ten years.

• India's last census was carried out in 2011 when the country's population stood at 121 crore. The Indian Census is one of the largest administrative exercises undertaken in the world.

Statement Analysis:

Statement 1	Statement 2	
Incorrect	Incorrect	
The reference date of census is taken as 1 st March for majority of the state.	1951-1991: It was sunrise of 1 st March (except 1971 which was 1 st April).	
But for snow-bound Jammu and Kashmir, Himachal Pradesh and Uttarakhand it is taken as October 1.		

Q.9) With reference to "international poverty line", consider the following statements:

- 1. The international poverty line has been set at \$1.50 per day.
- 2. As per the latest estimates, more than 15% percent of the world's population lives at or below the poverty line.

Which of the above statements is/are not correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Q.9) Solution (c)

Basic Information:

International poverty line

• The international poverty line is a monetary threshold under which an individual is considered to be living in poverty. It is calculated by taking the poverty threshold from each country, given the value of the goods needed to sustain one adult and converting it into dollars. The international poverty line was originally set to roughly \$1 a day.

- The World Bank sets the international poverty line at periodic intervals as the cost of living for basic food, clothing, and shelter around the world changes.
- In the 2008 update, the poverty line was set at \$1.25 per day.
- In 2015, the threshold was updated to \$1.90 per day.

Statement Analysis:

Note: incorrect statements are asked.

Statement 2	
Incorrect	
Recent estimates for global poverty are	
that 9.2% of the world, or 689 million	
people , live in extreme poverty on \$1.90 or	
less a day, according to the World Bank.	
ress a day, according to the World Barik.	
J J 1	
N/	

Q.10) Consider the following statements:

- 1. As per the first-ever Periodic Labor Force Survey (PLFS) community which has the highest Unemployment Rate is Christians.
- 2. Under disguised unemployment marginal productivity of labour is zero.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Q.10) Solution (c)

Basic Information:

Periodic Labor Force Survey (PLFS):

- PLFS is India's first computer-based survey launched by the National Statistical Office (NSO) in 2017.
- It has been constituted based on the recommendation of Amitabh Kundu.
- PLFS has two fold objective:
 - To estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the Current Weekly Status (CWS).
 - To estimate employment and unemployment indicators in both usual status and CWS in both rural and urban areas annually.
- Before PLFS the NSSO (previous name of NSO) used to bring the data related to employment and unemployment based on its quinquennial household socioeconomic survey programme.

Statement Analysis:

Statement 1	Statement 2
Correct	Correct
Among religious groups, Christians have the highest UR in both urban and rural areas. In rural areas, Christians have a UR of 7.4 percent, Muslims have a UR of 6.5 percent, Sikhs 6.3 percent and Hindus 5.2 %.	Disguised unemployment exists where part of the labour force is either left without work or is working in a redundant manner where marginal productivity of labour is essentially zero.
In urban areas, Christians have a UR of 11 %, Sikhs 9.1 %, followed by Muslims 8.5 % and Hindus 7.6 %.	

Q.11) Which of the following statements given below is/are correct?

- 1. India covers 2.4% of land, but is home to more than 17% of world population.
- 2. In recent years, India's population growth rate has become negative.

Select the correct statements:

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

Q.11) Solution (a)

Basic Information:

- The current population of India is 1,388,864,178 as of Friday, February 26, 2021, based on Worldometer elaboration of the latest United Nations data.
- India 2020 population is estimated at 1,380,004,385 people at mid-year according to UN data.
- India population is equivalent to 17.7% of the total world population.
- India ranks number 2 in the list of countries (and dependencies) by population.
- Its population growth rate is 1.13%, ranking 112th in the world in 2017.

Statement Analysis:

Statement 1	Statement 2
Correct	Incorrect
India covers only 2.4% of land area, but hosts 17.7% of world's population.	India's population growth rate has declined, but has not become negative.

Q.12) Consider the following demographic attributes of India:

- 1. India's total fertility rate is well above replacement rate.
- 2. Fertility rate of Indians has consistently declined since independence.
- 3. Fertility rate in urban India is well below replacement rate.

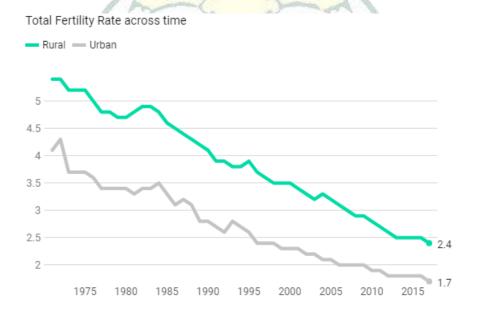
Which of the following statement is/are correct?

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

Q.12) Solution (c)

Basic Information:

- A Total Fertility Rate (TFR) of 2.1 represents the Replacement-Level Fertility: the average number of children per woman needed for each generation to exactly replace itself without needing international immigration. A value below 2.1 will cause the native population to decline.
- The fertility rate for India in 2020 was 2.200 births per woman, a 0.9% decline from 2019.
- The current fertility rate for India in 2021 is expected to be 2.179 births per woman, a 0.95% decline from 2020.
- Fertility decline in India has not been smooth.



 The Total Fertility Rate or TFR (the average number of children that a woman will have in her lifetime) in urban India as a whole has now fallen to levels that in some countries are taken as a cause for concern in terms of being too low. TFR in urban India fell to 1.7 as of 2017, comparable to that of Belgium, Iceland and Norway, and lower than that of the United States or the United Kingdom (1.8).

Statement Analysis:

Statement 1	Statement 2	Statement 3
Incorrect	Incorrect	Correct
India's fertility rate has almost reached replacement rate.	There are various fertility reversal trends in India, especially in the 1980s.	

Q.13) Match the following pairs:

Pair I

- 1. Most densely populated state of India.
- 2. Worst performing state of India in terms of female literacy.
- 3. Worst performing state of India in terms of female sex ratio.
- 4. Least urbanized state of India.

Pair II

- A. Haryana
- B. West Bengal
- C. Bihar
- D. Rajasthan
- E. Arunachal Pradesh
- F. Himachal Pradesh

Select the correct code from given options:

- a) 1-C, 2-C, 3-A, 4-F
- b) 1-B, 2-D, 3-A, 4-E
- c) 1-C, 2-A, 3-E, 4-F
- d) 1-C, 2-A, 3-D, 4-F

Q.13) Solution (a)

Basic Information:

• Most densely populated state of India is Bihar at 1106 persons per square kilometer.

- Worst female literacy rate is of Bihar at 52.33%.
- Worst female sex ratio is of Haryana at 877 females per thousand males.
- Least urbanized state is Himachal Pradesh at only 10.04% of urban population.

Note: all figures according to 2011 census.

Q.14) Consider the following statements about internal migration in India:

- 1. More than 2/3rd of internal migrants are females.
- 2. Bihar is the largest source of inter-state migrants in India.

Which of the following statements is/are correct?

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

Q.14) Solution (a)

Basic Information:

- Internal Migrants in India constitute a large population of 309 million internal migrants or 30 percent of the population (Census of India 2001).
- Out of the total internal migrants, 70.7 percent are women (Census of India 2001) and marriage is one of the major reasons for female migration in both the rural and urban areas.
- Uttar Pradesh (-26.9 lakh) and Bihar (- 17.2 lakh) were the two states with the largest number of persons migrating out of the two states.

Q.15) Select the incorrect statement from below given options:

- 1. Migration in India is signified by only change in place of residence.
- 2. Migration always involves a change in residence.

Choose from below given options:

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

Q.15) Solution (a)

Basic Information:

- When a person or a group of the community move from one place to another, majorly across political and administrative borders; it gives rise to migration.
- The features of migration are mentioned in the table below:

Migration always is signified by movements of persons or a community
It can be forced or voluntary
It always involves a change of residence
It leads to population change in the area
Migration may lead to emigration (when a person leaves his/her own country to settle permanently in another country)
In the Indian Census, migration is signified by two types:

- In the Indian Census, migration is signified by two types:
 - Migration by birthplace
 - Migration by place of last residence
- The census also covers the reasons for migration which are:
 - Work/Employment
 - o Business
 - Education
 - Marriage
 - Moved after birth
 - Moved with household

Statement Analysis:

Statement 1	Statement 2	
Incorrect	Correct	
Migration involves both change in place of residence and change in place of birth.	Migration always involves change in place of residence.	

Q.16) Which of the following can cause burgeoning of slums?

- 1. Uncontrolled migration.
- 2. Rapid growth of urban population.
- 3. High land values in urban areas.

Select the correct code from below given options:

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

Q.16) Solution (c)

Basic Information:

- A slum is usually a highly populated urban residential area consisting mostly of closely packed, decrepit housing units in a situation of deteriorated or incomplete infrastructure, inhabited primarily by impoverished persons.
- Following are the factors that can cause slum formation:
 - Rapid growth of urban population.
 - Unemployment in rural areas.
 - o Mass migration of unskilled and semi-skilled from rural to urban areas.
 - o Limited employment opportunities to immigrant rural population in urban areas.
 - Limited land and highland values in urban areas.
 - Shortage of cheap residential accommodation in urban areas.
- While slums differ in size and other characteristics, most lack reliable sanitation services, supply of clean water, reliable electricity, law enforcement,

and other basic services. Slum residences vary from shanty houses to professionally built dwellings which, because of poor-quality construction and/or lack of basic maintenance, have deteriorated.

Statement Analysis:

All the statements are correct.

Q.17) Arrange the following racial groups in chronological order on the basis of their entry into the Indian subcontinent:

- 1. Proto-Australoids
- 2. Nordics
- 3. Mediterraneans
- 4. Mongoloid

Select the correct code from below given options:

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

Q.17) Solution (a)

Basic information:

- The present day population of the country has been derived mainly from the following racial groups:
 - Negritos- earliest occupants of India.
 - o Proto-Australoids- came to India after Negritos from east Mediterranean area.
 - Mongoloids- this race belongs to the China, they entered India from north through mountain passes.
 - Mediterraneans- came to india from eatern Mediterranean area or south-west
 Asia. They are believed to be the bearers of earliest form of Hinduism in India.
 - o **Nordics** constitute the last wave of migration into India. They spoke Aryan language and migrated to India sometime during the second millennium B.C.

Q.18) Consider the following statements about urban sprawl:

- 1. It refers to the migration of a population from populated towns and cities to adjoining low density suburban areas.
- 2. Urban sprawl can lead to environmental problems.
- 3. It can result from increased affluence, attractive land and housing prices.
- 4. Urban sprawl is a planning problem.

Which of the following statements is/are correct?

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

Q.18) Solution (d)

Basic information:

- Urban sprawl, also called sprawl or suburban sprawl, the rapid expansion of the geographic extent of cities and towns, often characterized by low-density residential housing, single-use zoning, and increased reliance on the private automobile for transportation.
- Urban sprawl is caused in part by the need to accommodate a rising urban population; however, in many metropolitan areas it results from a desire for increased living space and other residential amenities.
- Urban sprawl has been correlated with increased energy use, pollution, and traffic
 congestion and a decline in community distinctiveness and cohesiveness. In addition, by
 increasing the physical and environmental "footprints" of metropolitan areas, the
 phenomenon leads to the destruction of wildlife habitat and to the fragmentation of
 remaining natural areas.
- There are many factors that contribute to urban sprawl. As statistics show, population increases alone do not account for increases in a metropolitan area's urban extent. In many cases, urban sprawl has occurred in areas experiencing population declines, and some areas with rising populations experience little urban sprawl, especially in developing countries.

- Economic growth and globalization are often cited as the principal macroeconomic drivers of urban sprawl; however, increased affluence, attractive land and housing prices, and the desire for larger homes with more amenities (such as yards, household appliances, storage space, and privacy) play significant roles at the level of the individual.
- Many experts also believe that weak planning laws and single-use zoning also contribute to urban sprawl.

Statement Analysis:

State	ment 1		Statement 2	Statement 3	Statement 4
Co	rrect		Correct	Correct	Correct
Migration population suburbs expansion areas.	of to leads of	urban the to urban	Pollution and colonisation of new land and converting them into concrete jungles.	Mostly done by the rich to avoid congestion of core urban areas.	Lack of resources to control urbanization through planning leads to urban sprawl.

Q.19) Identify major industrial regions of India from below given options:

- 1. Chotanagpur Industrial Region
- 2. Vishakhapatnam-Guntur Industrial Region
- 3. Ambala-Amritsar Industrial Region
- 4. Kollam-Trivandrum Industrial Region

Select the correct code from below given options:

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

Q.19) Solution (d)

Basic Information:

- Industrial regions emerge when a number of industries locate close to each other and share the benefits of their closeness. They tend to concentrate on certain locations because of the favourable locational factors.
- Major industrial regins of India are:
 - Mumbai-Pune Industrial Region 2. Hugli Industrial Region. 3. Bangalore-Tamil Nadu Industrial Region 4. Gujarat Industrial Region 5. Chotanagpur Industrial Region 6. Vishakhapatnam-Guntur Industrial Region 7. Gurgaon-Delhi-Meerut Industrial Region 8. Kolfam-Thiruvananthapuram Industrial Region.



Q.20) Select the incorrect statements about major religious groups in India from below given options:

- a) Child sex ratio is highest among Hindu religious group in India.
- b) Literacy rate is highest among Christian religious group in India.
- c) Female work participation rate is highest among Buddhist religious group in India.

d) All of the above statements are incorrect.

Q.20) Solution (b)

Basic Information:

Name of Religion	Percentage to total population	Sex ratio
Hindus	80.5	931
Muslims	13.4	936
Christians	2.3	1009
Sikhs	1.9	893
Buddhists	0.8	953
Jains	0.4	940
Other religions	0.6	992
India	100	933

Name of Religions	Percentage of 0- 6 population to total population	Child Sex Ratio
Hindus	15.6	925
Muslims	18.7	950
Christians	13.5	964
Sikhs	12.8	786
Buddhists	14.4	942
Jains	10.6	870
Other religions	18.0	976
India	15.9	927

UPSC

2021

	Literacy	Literacy	Literacy
Name of Religion	Rate	Rate	Rate
	(Total)	(Males)	(Females)
Hindus	65.1	76.2	53.2
Muslims	59.1	67.6	50.1
Christians	80.3	84.4	76.2
Sikhs	69.4	75.2	63.1
Buddhists	72.7	83.1	61.7
Jains	94.1	97.4	90.6
Other religions	47.0	60.8	33.2
India	64.8	75.3	53.7

Name of Religion	Work participation Rate		
	Total	Male	Female
Hindus	40.4	52.4	27.5
Muslims	31.3	47.5	14.1
Christians	39.7	50.7	28.7
Sikhs	37.7	53.3	20.2
Buddhists	40.6	49.2	31.7
Jains	32.9	55.2	9.2
Other religions	48.4	52.5	44.2
India	39.1	51.7	25.6

Q.21) Consider the following statements with reference to "CAFÉ Regulations":

- 1. Source of this regulation is National Road Transport Policy, 2016.
- 2. It covers emission of all greenhouse gases, also covered in Basel Norms.
- 3. CAFE regulations are in power for all the engines. Diesel, Petrol as well as CNG.

Which of the above given statements is/are incorrect?

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

Q.21) Solution (a)

Explanation:

CAFE (Corporate Average Fuel Efficiency) regulations

- CAFE (Corporate Average Fuel Efficiency/Economy) norms aim at lowering fuel consumption (or improving fuel efficiency) of vehicles.
- The CAFE regulations are in place in many advanced as well as developing nations, including India. (It is an international regulation and so its source is not the National Road Transport Policy.)(So, Statement 1 is incorrect)
- CAFE regulations in India came into force from April 1, 2017.

Purpose of CAFE regulations

- The CAFE (Corporate Average Fuel Efficiency) regulations aim to reduce the overall COx (Carbon Oxides) from the exhaust of the vehicle.
- The reduced carbon footprint leads to increased fuel economy.
- These regulations were first implemented on 1st April 2017 with the introduction of BS4 exhaust emission norms.
- It was decided the highest carbon footprint allowed was 130gm per km till 2022. After that, till will be further reduced to 113gm per km.
- CAFE regulations are in power for all the engines. Diesel, Petrol as well as CNG. (So, Statement 3 is correct)
- CAFE majorly focuses on COx emissions. BS6, on the other hand, focuses on overall emissions which include NOx (Nitrogen Oxides), SOx (Sulphur Oxides). (So, Statement 2 is incorrect)

Q.22) Consider the following statements:

- 1. Ease of Living Index is released by Ministry of Housing and Urban Affairs, while Municipal Performance Index is released by Ministry of Panchayati Raj.
- 2. Better performance in Ease of Living index will lead to more allocation of funds from state government.
- 3. Ease of Living Index has four parameter including Citizen's perception.

Which of the above given statement is/are correct?

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

Q.22) Solution (c)

Explanation:

Ease of Living Index (EOLI) & Municipal Performance Index (MPI)

- Both were released by Ministry of Housing & Urban Affairs. (So, Statement 1 is incorrect)
- 111 cities participated in EoLl and MPI was released for 111 municipalities and 3 municipal corporations.

Ease of Living Index (EOLI)

- EoLl is an assessment tool that evaluates the quality of life and the impact of various initiatives for urban development.
- It provides a comprehensive understanding of participating cities across India based on Quality of life, Economic-ability of a city, Sustainability and Citizen's perception. (So, Statement 3 is correct)
- First edition of the index was launched in 2018.
- There is no provision of funding based on performance in this index. It's an evaluation and assessment to drive competition within cities. (So, Statement 2 is incorrect)

Municipal Performance Index

- MPI was launched in 2019, as an accompaniment to the EOLI
- MPI seeks to assess and analyse performance of Indian municipalities based on their defined set of functions.
- It covers 20 varied sectors vis. Education, Health, Water & Wastewater, SWM & Sanitation, Registration & Permits, Infrastructure, Revenue Management.

Q.23) Consider the following statements with reference to "Red Rice":

- 1. It is rich in Iron.
- 2. It is grown in laterite soils of Gujarat and some areas of Eastern Ghats.

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.23) Solution (a)

Explanation:

About Red Rice

- It is a deep-water paddy that produces a particular type of iron-rich red rice. (So, Statement 1 is correct)
- The rice variety exported is referred as **'Bao-dhaan'**, which is an integral part of the **Assamese food**.
- It is an **iron rich rice** which is grown in **Brahmaputra valley of Assam**, without the use of any chemical fertilizer. **(So, Statement 2 is incorrect)**
- It is generally grown in areas having higher land submergence that are unsuitable for other varieties of paddy.
- Unlike other rice varieties, its seeds do not fall off easily.
- The red colour is conferred by anthocyanin pigments.
- They are rich in micronutrients like iron and zinc, Vitamin A and antioxidants.

Q.24) Consider the following statements about 'Biotechnology Industry Research Assistance Council (BIRAC):

- 1. It is a not-for-profit Public Sector Enterprise established by Department of Biotechnology.
- 2. One of its strategies is to enable commercialisation of discovery.
- 3. It provides funding to other private organisation to bring innovation excellence.

Select the correct answer using the code given below:

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

Q.24) Solution (d)

Explanation:

Biotechnology Industry Research Assistance Council (BIRAC)

Biotechnology Industry Research Assistance Council (BIRAC) is a not-for-profit Section 8, Schedule B, Public Sector Enterprise, set up by Department of Biotechnology (DBT), Government of India as an Interface Agency to strengthen and empower the emerging Biotech enterprise to undertake strategic research and innovation, addressing nationally relevant product development needs. (So, statement 1 is correct)

BIRAC is an industry-academia interface and implements its mandate through a wide range of impact initiatives, be it providing access to risk capital through targeted funding, technology transfer, IP management and handholding schemes that help bring innovation excellence to the biotech firms and make them globally competitive. (So, Statement 3 is correct)

Key Strategies

- Foster innovation and entrepreneurship
- Promote affordable innovation in key social sectors
- Empowerment of start-ups & small and medium enterprises
- Contribute through partners for capability enhancement and diffusion of innovation
- Enable commercialization of discovery(So, Statement 2 is correct)
- Ensure global competitiveness of Indian enterprises

Q.25) Tinku Mittal is a foreign national of Australia and has his roots in India. Now he wants to apply for Overseas Indian Card. Consider the following case:

- 1. He was born in March 1952 in Delhi and left country in 1960.
- 2. His Indian parent have fought Indian Freedom struggle and have been elected as Chief Minister of State.
- 3. He has married an Indian girl, whose both parents are Indian at her birth.
- 4. Meanwhile, he has accepted Citizenship in Bangladesh, as he has invested much there.

In which of the above condition, he will be able to get OCI card?

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

d) 2 and 3 only

Q.25) Solution (a)

Explanation:

About Overseas Citizen of India

A person registered as OCI cardholder under section 7A of Citizenship Act, 1955.

Eligibility: A foreign national who

- Was eligible to be citizen of India on 26th January, 1950
- is a child or a grandchild or a great grandchild of such a citizen
- Spouse of foreign origin of a citizen of India or spouse of foreign origin of an Overseas
 Citizen of India Cardholder with certain conditions etc.

Citizens of Pakistan, Banglad<mark>esh or other country notified by</mark> Central Government are not eligible.

- **Statement 1**: He is eligible to become Indian Citizen, so He can get OCI card.
- Statement 2: As any Indian Citizen can only be Chief Minister, so by being a child of Indian Parent, he can get OCI Card.
- **Statement 3**: As being a spouse of an Indian Citizen, he will be eligible for OCI card.(Having both parents as Indian will certify his spouse as either Indian citizen)
- Statement 4: As he has accepted Bangladesh Citizenship, So he will not able to get OCI card.

Q.26) Consider the following statement about "The Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021:

- 1. This rule divide social media intermediary into two categories, categorising on audio-video type.
- 2. The social media platform has to follow court order to remove or disable access to information.

Form the following options, choose the correct answer.

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

Q.26) Solution (b)

Explanation:

The Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021

The rules, which categorise intermediaries as social media intermediary and significant social media intermediary based on number of users, said significant social media intermediaries providing messaging services would "enable the identification of the first originator of the information. (So, statement 1 is incorrect)

On receiving a court order or being notified by the appropriate government agency, an intermediary will need to remove or disable access to information any unlawful information "as early as possible, but in no case later than 36 hours". (So, Statement 2 is correct)

The intermediary will also have to provide information or assistance to authorised government agency for "investigative or protective or cyber security activities, for the purposes of verification of identity, or for the prevention, detection, investigation, or prosecution, of offences under any law for the time being in force, or for cyber security incidents" within 72 hours of the receipt of an order.

Such an order would "only be passed for the purposes of

- prevention, detection, investigation, prosecution or punishment of an offence related to the sovereignty and integrity of India,
- the security of the State,
- friendly relations with foreign States, or
- public order, or
- Of incitement to an offence relating to the above or in relation with rape, sexually
 explicit material or child sexual abuse material, punishable with imprisonment for a
 term of not less than five years."

The intermediaries need to appoint a Grievance Officer to deal with complaints and share the name and contact details of such an officer

Q.27) Consider the following statements:

- 1. It is situated in two states.
- 2. Park named on the river cut it into two equal parts: eastern and western.

3. Recently it was awarded with title of best managed tiger reserves in the country.

Which of the following Tiger Reserve is being talked about?

- a) Periyar Tiger Reserve
- b) Nagarjunasagar-Srisailam Tiger Reserve
- c) Rajaji Tiger Reserve
- d) Pench Tiger Reserve

Q.27) Solution (d)

Explanation:

About Pench Tiger Reserve

- It is located in Seoni and Chhindwara, districts of Madhya Pradesh.
- It shares a boundary with Maharashtra.
- It has two divisions: Priyadarshini National Park and Mowgli Pench Sanctuary.
- The river- Pench divides it in almost 2 equal halves (eastern and western).
- This place has been mentioned in "The Jungle Book" by Rudyard Kipling.
- Flora: Mahua, White Kulu, Salai, Saja, Bijiyasal, Dhaora, Amaltas etc.
- Fauna: Sher Khans (Bengal Tigers), Chital, Jungle Cat, Wolf, Indian Leopard, Gaur, Crow Pheasant, Indian Roller, Red-Vented Bulbul.
- Madhya Pradesh's Pench sanctuary and Kerala's Periyar sanctuary emerged as the best managed tiger reserves in the country, according to an evaluation of India's 50 tiger sanctuaries released along with the 4th National Tiger Estimation (Tiger census).

Q.28) Helinski Rule and Berlin rules sometimes seen in news are related to:

- a) To Counter-terrorism Measures
- b) To combat money laundering
- c) For use of water Resources
- d) To define post-Soviet order

Q.28) Solution (c)

Explanation:

Helsinki Rules of 1966

- The Helsinki Rules on the Uses of the Waters of International Rivers is an international guideline regulating how rivers and their connected groundwaters that cross national boundaries may be used
- It was adopted by the International Law Association (ILA) in Helsinki, Finland in August 1966
- It led to the creation of the United Nations' Convention on the Law of Non-Navigational Uses of International Watercourses
- It is applicable to all drainage basins that cross national boundaries, except where other agreement between bordering nations exists
- In spite of its adoption by the ILA, there is no mechanism in place that enforces the rules
- In 2004, it was superseded by the Berlin Rules on Water Resources

Q.29) Which of the following Organisation has released Food Waste Index Report, 2021?

- a) Food and Agriculture Organisation
- b) World Food Programme
- c) Food Corporation of India
- d) United Nations Environment Programme

Q.29) Solution (d)

Explanation:

Food Waste Index Report, 2021

- Report is released by United Nations Environment Programme (UNEP).
- As per it, an estimated 931 million tonnes of food equalling 17% of total food available to consumers in 2019 globally wasted.
- For India, waste in kg/capita/year was 50, lower than Nigeria producing waste at 189 kg
 / capita/year. Report suggests reducing food waste would improve food security, address
 climate change, save money and lower pressures on the environment.

Q.30) Consider the following statement regarding Sovereign Gold Bond Scheme:

- 1. Sovereign Gold Bonds are directly issued by Ministry of Finance.
- 2. Non-resident Indians (NRIs) can also invest in this bonds.

3. Capital gain tax will be applied after maturity of bonds.

Which of the above statement is/are incorrect?

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

Q.30) Solution (d)

Explanation

Statement 1: Sovereign gold bonds are issued by the RBI on behalf of the government. They are government securities denominated in grams of gold. They are substitutes for holding physical gold. (Hence, statement 1 is incorrect)

Statement 2: The Bonds is restricted for sale to resident individuals, Hindu Undivided Families (HUFs), Trusts, Universities and Charitable Institutions. So NRIs can't invest in Sovereign Gold Bond Scheme. (Hence, Statement 2 is incorrect)

Statement 3: It is tax efficient as no capital gains is charged in case of redemption on maturity. (Hence, Statement 3 is incorrect)

Basics about Sovereign Gold Bond Scheme

- The sovereign gold bond was introduced by the Government in 2015.
- Government introduced these bonds to help reduce India's over dependence on gold imports.
- The move was also aimed at changing the habits of Indians from saving in physical form of gold to a paper form with Sovereign backing.
- The bonds will be denominated in multiples of gram(s) of gold with a basic unit of 1 gram. The tenor will be for a period of 8 years with exit option from the 5th year to be exercised on the interest payment dates.
- Bonds can be used as collateral for loans. The loan-to-value (LTV) ratio is to be set equal
 to ordinary gold loan mandated by the Reserve Bank from time to time.

Read the following passages and answer the questions that follow each passage. Your answer to these questions should be based on passage only.

UPSC 2021

Passage 1

Opera refers to a dramatic art form, originating in Europe, in which the emotional content is conveyed to the audience as much through music, both vocal and instrumental, as it is through the lyrics. By contrast, in musical theatre an actor's dramatic performance is primary, and the music plays a lesser role. The drama in opera is presented using the primary elements of theatre such as scenery, costumes, and acting. However, the words of the opera, or libretto, are sung rather than spoken. The singers are accompanied by a musical ensemble ranging from a small instrumental ensemble to a full symphonic orchestra.

Q.31) It is pointed out in the passage that opera

- a) has developed under the influence of musical theatre
- b) is a drama sung with the accompaniment of an orchestra
- c) is not a high-budget production
- d) is the most complex of all the performing arts

Q.31) Solution (b)

Opera refers to a dramatic art form, originating in Europe, in which the emotional content is conveyed to the audience as much through music, both vocal and instrumental, as it is through the lyrics

This statement makes it clear that option b is the correct answer

Passage 2

Many sociologists have argued that there is functional relationship between education and economic system. They point to the fact that mass formal education began in industrial society. They note that the expansion of the economies of industrial societies is accompanied by a corresponding expansion of their educational systems. They explain this correspondence in terms of the needs of industry for skilled and trained manpower, needs which are met by the educational system. Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.

Q.32) The industry needs a literate work-force because

- a) its expansion needs sound learning
- b) it relies heavily on expertise

- c) it promotes a competitive spirit
- d) its operations need intricate technical knowledge

Q.32) Solution (d)

Thus, the provision of mass elementary education in Britain in 1870 can be seen as a response to the needs of industry for a literate and numerate workforce at a time when industrial processes were becoming more complex and the demand for technical skills was steadily growing.....

From this we can infer that option d is the correct answer.

Q.33) Where should the number 17 be placed to fit into the sequence?

18, 11, 15, 14, 19, 16, 20, 20

- a) Between 14 and 19
- b) Between 18 and 11
- c) Between 19 and 16
- d) Between 15 and 14

Q.33) Solution (c)

The correct placement is between 19 × 16

So that there will be 2 sequences

- 1. -3 and +4
- 2. +3 as shown in figure

Q.34) Find the missing number: 2, 6, 20, 42, 110, ?

a) 126

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- b) 156
- c) 176
- d) 196

Q.34) Solution (b)

The series is $2^2 - 2$, $3^2 - 3$, $5^2 - 5$, $7^2 - 7$, $11^2 - 11$.

So, the answer is 13² – 13 i.e. 156

Q.35) Find the missing number from the given series

5, 10, 13, 26, 29, 58, 61, _

- a) 109
- b) 115
- c) 122
- d) 125

Q.35) Solution (c)

Logic - Numbers are alternatively multiplied by 2 and increased by 3

$$5 \times 2 = 10$$

$$10 + 3 = 13$$

$$13 \times 2 = 26$$

$$26 + 3 = 29$$

$$29 \times 2 = 58$$

$$61 \times 2 = 122$$