## NATIONAL SOCIAL ISSUES- WOMEN, POPULATION, URBANISATION, EMPOWERMENT ETC

**Post Covid Coach**

Indian Railways' production unit, Rail Coach Factory, Kapurthala, has developed a Post Covid Coach to fight Covid 19.

About:

- This Post Covid Coach has design improvements in the coach like handsfree amenities, copper-coated handrails & latches, plasma air purification and titanium di-oxide coating for Covid free passenger journey.
- Rail Coach Factory at Kapurthala in Punjab is located on the Jalandhar-Firozpur line. It was established in 1986.

## GOVERNANCE- WELFARE SCHEMES, E-GOVERNANCE, SERVICES ETC.

**PRAGYATA: Guidelines on Digital Education**

Recently, the Ministry of Human Resource Development (MHRD) has released guidelines on digital education titled 'PRAGYATA'.

- The guidelines have been prepared by the National Council of Educational Research and Training (NCERT).
- These are only advisory in nature and state governments can formulate their own rules, based on local needs.
- The guidelines include eight steps of online/digital learning i.e. Plan- Review- Arrange- Guide- Yak (talk)- Assign- Track- Appreciate.
- Digital Access:
    - Over 25 crore students across the country have been out of school since mid-March 2020. (owing to Covid-19 pandemic). The guidelines acknowledge that these students live in households which fall into different categories:
    - Those who have computers or smartphones with 4G internet access.
    - Those with smartphones but limited or no internet access.
    - Those with television with cable or DTH.
    - Those with a radio set or a basic mobile phone with FM radio.
    - And those with no communication devices at all.
    - It emphasised the aim of digital classrooms is not to try and recreate Face-to-Face (F2F) classrooms over the internet.
- Need for Survey: It advises schools to first survey the digital infrastructure available with teachers as well as students, the levels of parental involvement before making decisions about the mode of teaching.
    - Therefore, schools must also make arrangements to reach students who do not have access to any digital infrastructure at home.
- Duration: For kindergarten, nursery and pre-school, only 30 minutes of screen time per day for interacting with parents is recommended.
    - Schools can hold live online classes for a maximum of 1.5 hours per day for Classes 1-8, and 3 hours per day for Classes 9-12.
- Synchronous or Real-time Communication: This is real-time teaching and learning that can happen collaboratively at the same time with a group of online learners or individuals, and teachers allowing instant feedback, e.g. online teaching through video conference, audio conference, using satellite or telecommunication facilities.
    - However, schools should not assume that teaching-learning through it is the only requirement in order to support effective digital learning.
- Asynchronous Learning: Apart from live classes, it offered a number of recommendations for asynchronous learning with tools to allow students to download lessons or listen to radio and TV programmes, communicate through Whatsapp and SMS, study on their own and undertake creative projects.
- Health Issues: Children exposed to digital technologies or gadgets for a longer time are prone to severe health issues.
    - Hence sitting with digital gadgets for longer hours or their excess use can be avoided by designing age appropriate schedules.
- Cyber Safety: It also recommends ethical practices including precautions and measures for maintaining cyber safety.
- Convergence: It envisages convergence with the government initiatives on digital education e.g. SWAYAM Prabha, SWAYAM, DIKSHA and Radio Vahini, Shiksha Vaani

**WORLD YOUTH SKILLS DAY**

World Youth Skills Day 2020 is being held on July 15 under the theme "Skills for a Resilient Youth in the Era of COVID-19 and Beyond".


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About:

- Designated by the General assembly in 2014, the World Youth Skills Day is an opportunity for technical and vocational education and training (TVET) institutions to acknowledge the importance of equipping young people with skills for employment.
- The vision of the Incheon Declaration: Education 2030 is fully captured by Sustainable Development Goal 4 "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".

Global Employment Trends for Youth 2020

- The latest Global Employment Trends for Youth 2020: Technology and the future of jobs shows that since 2017, there has been an upward trend in the number of youth not in employment, education or training (NEET).
- In 2016 there were 259 million young people classified as NEET – a number that rose to an estimated 267 million in 2019, and is projected to continue climbing to around 273 million in 2021.
- In terms of percentage, the trend was also slightly up from 21.7% in 2015 to 22.4% in 2020 – implying that the international target to reduce the NEET rate by 2020 will be missed.

## INTERNATIONAL AFFAIRS- BILATERAL, GROUPINGS, ORGANISATIONS

### NAGORNO-KARABAKH

For approximately four decades, territorial disputes and ethnic conflict between Armenia and Azerbaijan in Central Asia have impacted the Nagorno-Karabakh region in the South Caucasus. Recently, tensions escalated at the border between the two countries.

About:

- Nagorno-Karabakh, also known as Artsakh, is a landlocked region in the South Caucasus, within the mountainous range of Karabakh.
- Nagorno-Karabakh is a disputed territory, internationally recognized as part of Azerbaijan, but mostly governed by the Republic of Artsakh, a de facto independent state with an Armenian ethnic majority established on the basis of the Nagorno-Karabakh Autonomous Oblast of the Azerbaijan Soviet Socialist Republic.
- Azerbaijan has not exercised political authority over the region since the advent of the Karabakh movement in 1988. Since the end of the Nagorno-Karabakh War in 1994, representatives of the governments of Armenia and Azerbaijan have been holding peace talks on the region's disputed status.

### SREBRENICA MASSACRE

On July 11, 25 years on, commemoration services were held at the Srebrenica-Potocari Memorial and Cemetery in remembrance of the victims of the Srebrenica massacre, the ethnic cleansing of Bosnian Muslims.

About:

- In July 1995, approximately 8,000 Muslims, mostly men and boys were killed in Srebrenica, a town in Bosnia and Herzegovina in south-eastern Europe, by Bosnian Serb forces led by Commander Ratko Mladić.
- These killings were later classified as genocide by international tribunals investigating the massacre.
- The disintegration of Yugoslavia in 1991 threw the south-eastern and central Europe in chaos and led to violent inter-ethnic wars in the region over the next few years. In many ways, the violence perpetrated against Bosniaks or Bosnian Muslims during the Srebrenica massacre was a result of this regional conflict.

## INDIAN ECONOMY

### KARNATAKA-TAMIL NADU ECONOMIC CORRIDOR

The Expert Appraisal Committee of the Environment Ministry has recommended the grant of Environmental Clearance for the development of an economic corridor — the Satellite Town Ring Road (STRR) — between Tamil Nadu and Karnataka.

About:

- The greenfield highway is part of Bharatmala Pariyojna and will be implemented by the National Highways Authority of India.
- The project will start in Dabaspet in Karnataka and end near Devarapalli village on the Tamil Nadu-Karnataka border.

## ENVIRONMENT- CONSERVATION, BIO-DIVERSITY AND ISSUES

### KAZI 106F

'Kazi 106F', described as the country's only Golden Tiger, has emerged as the social media sensation right after its picture tweeted by an IFS officer went viral.

About:

- Kazi 106 F, the tigress, resides in world heritage Kaziranga National Park of Assam. It is also known as 'Tabby tiger' or 'Strawberry tiger'.
- The skin of tigers is orange-yellow with black stripes and whitish abdominal region.


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- The yellowish background is controlled by a set of 'agouti genes' and their alleles and the black colour stripes are controlled by 'tabby genes' and their alleles. Suppression of any of these genes may lead to colour variation in tiger.
- Agouti genes interacts with the pigment cells to produce yellow to red or brown to black expression. This interaction is responsible for making distinct light and dark bands in the hairs of animals such as the agouti here same is happening in our tigress - Kazi 106 F.

## SCIENCE AND TECHNOLOGY- EVERYDAY SCIENCE, SPACE, NUCLEAR, DEFENCE ETC

### SHUDH

IIT Kanpur has developed a UV sanitizing device named 'SHUDH' to make people's room COVID free.

About:

- Due to Covid Pandemic People are nowadays afraid of touching anything around, specifically in the areas where masses have to come. To solve this problem Imagineering Laboratory department of IIT Kanpur has developed an Ultraviolet (UV) sanitizing product named SHUDH.
- Smartphone operated Handy Ultraviolet Disinfection Helper (SHUDH) has six UV lights of 15 Watts each that can be individually monitored from a distance.
- The device at its full operation can disinfect a 10x10 squared feet room in about 15 minutes.
- SHUDH can assist in killing the spread of corona virus at the highly prone places such as hospitals, hotels, malls, offices and schools.

### AIRBORNE TRANSMISSION OF COVID-19

The World Health Organisation (WHO) has formally acknowledged the possibility that the novel coronavirus can remain in the air in crowded indoor spaces, where "short-range aerosol transmission cannot be ruled out".

What are aerosols

- Aerosol is a term used to broadly refer to particles suspended in the air; they could include fine dust, mist, or smoke.
- In the context of transmission of viruses, as in this case, aerosols are read as micro droplets, much smaller (5 microns or lesser) than respiratory droplets, and take a longer time to drop to the floor.
- They will be expelled by people breathing, laughing or singing, as against respiratory droplets that are expelled with forceful acts such as sneezing or coughing.

What is Airborne transmission?

- Airborne transmission is defined as the spread of an infectious agent caused by the dissemination of droplet nuclei (aerosols) that remain infectious when suspended in air over long distances and time.
- It is different from droplet transmission as it refers to the presence of microbes within droplet nuclei, which are generally considered to be particles <5µm in diameter, can remain in the air for long periods of time and be transmitted to others over distances greater than 1 m.

How does it happen?

- Airborne transmission of SARS-CoV-2 can occur during medical procedures that generate aerosols ("aerosol generating procedures").
- Theories suggest that 1) a number of respiratory droplets generate microscopic aerosols (<5 µm) by evaporating, and 2) normal breathing and talking results in exhaled aerosols.
- Thus, a susceptible person could inhale aerosols, and could become infected if the aerosols contain the virus in sufficient quantity to cause infection within the recipient.

### GOOGLE FOR INDIA DIGITISATION FUND

US TECH giant Google announced that it has set up a 'Google for India Digitisation Fund.'

About:

- Through this fund, it will invest $10 billion in India over the next five to seven years through a mix of equity investments, partnerships, operations, infrastructure and ecosystem investments.
- Google said its $10-billion fund will focus on areas such as
  - enabling affordable access to the internet and to information for every Indian in their own language;
  - building new products and services in segments like consumer tech, education, health and agriculture;
  - empowering businesses especially small and medium businesses to transform digitally etc.
- The announcement comes close on the heels of India signalling curbs on Chinese technology investments and banning 59 mobile apps with links to Chinese technology majors such as Alibaba – one of the largest Chinese investors in Indian start-ups.

## DAILY ANSWER WRITING PRACTICE

**Q. Creation of a vibrant knowledge society can be ensured by higher quality education to all thereby making India a 'Global knowledge Super Power'. Explain.**


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From the very dawn of history, India has been the Global knowledge Super Power, as it can be reflected in India's contribution to the fields like mathematics, medicine, literature. However, the status of education in India, in present times, is in a dismal state.

The importance of education can be depicted by the words of Nelson Mandela -"Education is the most powerful weapon which you can use to change the world". Thus, becoming a global knowledge superpower is a pretext of becoming a political superpower.

India has several key advantages which could work in its favour in the becoming global knowledge superpower. For example:

- Young Population: India enjoys the advantage of having a young population. It is estimated that, in 2020, an average person will only be 29 years old in India, which is much younger when compared with many developed countries such as the US, EU.
- Critical mass of English-speaking workers: At present, English-speaking workers are estimated to beyond 70 million.
    - Such linguistic skills are important to allow Indians to connect with the rest of the world and to benefit from the opportunities in the global marketplace.
- Large and Impressive Diaspora: The Indian diaspora allows for invaluable knowledge linkages and networks globally.
    - At the same time, the highly influential diaspora of Indian professionals and entrepreneurs have been instrumental in bringing high technology investments to Bangalore, Hyderabad and other Indian cities.

Associated Challenges

India's system of higher education suffers from several limitations:

- High Education, a Privilege: Gross enrolment ratio in higher education is less than 9% in India, compared to 15% in China and more than 20% in many developing countries such as Mexico, Malaysia, Thailand, Chile and Brazil.
    - Post-liberalization, there has been mushrooming of private education institutions, but these have largely benefitted the relatively better-off sections of the Indian society.
    - Another challenge for the education sector is bridging the digital divide in the country.
- Regional Disparity: The enrolment ratios vary across Indian states, with the southern and western states faring better than their eastern counterparts.
    - The problem in the education sector has further compounded the lack of proper teaching facilities and best-practices, especially in rural areas.
- Lack of Quality Teaching: Some of the causes identified by education experts are a high teacher to pupil ratio, at 1:42 in some states and as high as 1:83 in others.
    - There are also no standard teacher training processes in place, and accountability and benchmarking are almost absent.
    - Also, the outdated rote learning is also in practice, without sufficient conceptual understanding.
- Lack of a Futuristic Vision: Despite nearly six years of deliberation and two committee reports, the human resource development ministry is yet to roll out the new National Education Policy (NEP) which will be the board rule book for the future of education in India for next several years.
    - Last National Education Policy (NEP-1986) came almost three decades back.

Way Forward

- Shifting Towards EDU-TECH: There is need to give special emphasis on the use of technology in the education sector and enhancing learning and adapting by the use of technology such as online classes, education portal and class-wise broadcast on dedicated education channels.
- New Integrated National Curriculum Framework: A new national curriculum framework needs to be devised, with focus on multi-linguistic, Industry 4.0 (data analytics, artificial intelligence etc.), and integration of sport and art, environmental issues etc.
- Inestment in knowledge-Based Industries: Due to scope and utility of knowledge-Based Industries, there is a need for investment in Information and Communications Technology, Defence and Space Technology, Pharmaceuticals, Biotechnology, etc.
- Knowledge as a Public Good: Nobel Laureate Economist Joseph Stiglitz's cities knowledge as a public good. Therefore, the Indian government must play a dominant role in the provision of knowledge.
    - In this context, the Government must increase public expenditure on education, which remains quite low at 3.2% of GDP.

Conclusion: Improving secondary and tertiary education remains critical in the pursuit of becoming a knowledge superpower, but the government also needs to address the lacuna related to elementary education.


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