05 Jun 2022: UPSC Exam Comprehensive News Analysis

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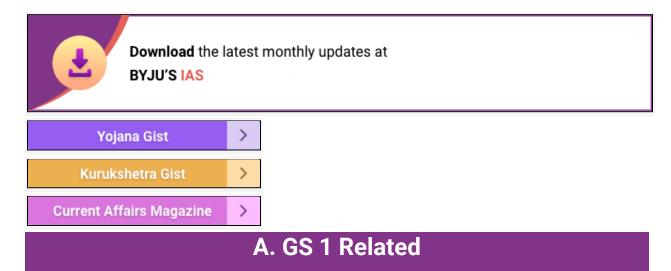
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B. GS 2 Related

GS III, Science and Technology, developments and their applications and effects in everyday life

1. The Cartel and its Allies that keep oil on the boil

Syllabus: GS II, International Relations, Important International Institutions

Prelims: OPEC+

Mains: Role of cartels in influencing the global oil prices and the challenges imposed.

Context: The article offers a narrative on the challenges that are in front of OPEC (Organisation of the Petroleum Exporting Countries) and its partners due to the ongoing tensions between Russia and Ukraine.

The background:

- OPEC was formed as a result of a session in Baghdad in 1960 that engaged Iran, Iraq, Kuwait, Saudi Arabia and Venezuela.
- The members of OPEC and a group of non-OPEC oil producers, including Russia, deepened their cooperation in 2016 to influence energy prices across the globe. This cooperation was known as the OPEC+ (Plus).

Read the details of OPEC in the shared link

Present Scenario:

- The Russia-Ukraine Conflict has changed the entire fabric of geopolitics and influenced the global supply chain to a massive extent.
- In the aftermath of Ukraine's invasion, the OPEC countries which are the major oil producers, are in the limelight as the global oil prices elevated above \$120 a barrel with the inadequacy of supply and rising demand.
- Such an elevation in the global oil prices is anticipated to remain intact as the European
 Union has decided to cut down oil imports from Russia by 90% and block European insurers
 from selling cover to tankers carrying Russian oil.
- This will be a huge burden on the OPEC members as the non-Russia oil producers may not be able to compensate for the lost Russian supplies and meet the demand of the European consumers within a proper timeline.
- This will expand the period of high global oil prices.
- Its implications will largely hit the shores of India's demand for oil and we are dependent on oil imports.
- OPEC operated as a cartel to limit the global supply of oil with rising demand as a result of which the prices will be elevated.
- According to the economists, the disruption in the functioning of the cartel will affect the
 cooperation between the oil producers and there will be no limit to supply, thereby total
 output of oil in the world would be higher.
- This means that there would be more oil available to fuel the economic activities resulting in more goods and services being produced in the global economy ensuring a higher standard of living.
- This was the reason for which the countries like the US and the UK have been exerting
 political pressure on OPEC countries to increase production to prevent the global economy

from drifting into recession. Besides, the US has also tried to boost its domestic production capacity to reduce its dependence on the OPEC countries.

Ways Ahead:

- Structural reforms are to be placed in the energy sector of countries like India to boost their domestic production and cut down dependence on OPEC countries.
- The sanctions imposed on Russia have been an opportunity for India to purchase oil at a highly discounted rate.
- It is to be addressed that the global oil market is a competitive one where no producer would have the market power to influence prices as per some economists.
- The future of OPEC is dependent on the fate of oil as a source of energy in the global economy. It is said that oil will remain the major source of energy in this century, empowering the role of OPEC.
- On the other hand, it is also believed that OPEC's influence will fade as the world transitions to green energy to reduce its carbon footprint by cutting down its dependence on fossil fuels.

Nut Graf

The world is witnessing a massive crunch in the global oil supply with high prices which have been the significant outcome of the Russia-Ukraine conflict. Despite the fact that the world is transitioning towards clean and green energy, the role of OPEC as the major oil-producing cartel will remain important in stabilising the energy market.

C. GS 3 Related

1. Monkeypox virus mutates at a higher rate

Syllabus: GS III, Science and Technology, developments and their applications and effects in everyday life

Prelims: Monkeypox virus

Mains: Implications of high mutation rates in some of the infectious viruses and preventive measures to tackle such infections.

Context: The article analyses the mutation pattern of the Monkeypox virus. The health ministry of India has issued guidelines on the management of the monkeypox virus despite no cases having been reported in India.

An Overview of the issue:

- The World Health Organisation (WHO) asserted that there have been cases of Monkeypox infection reported from 30 countries.
- The infection has been prevalent in Europe and North America which are not endemic to the monkeypox virus.

- Over a period of time, the cases of monkeypox viral infection have increased considerably in countries like the United Kingdom, Spain and Portugal.
- There lie huge perplexities in understanding the mode of transmission and the rapid spread of the virus, opening avenues for speculations.

Read comprehensively about the Monkeypox Virus in the linked article

Understanding Mutation:

- Mutation can be defined as a change in the sequence of genetic material (either Deoxyribonucleic Acid or Ribonucleic Acid in the case of certain RNA viruses) of an organism which might alter the functioning of physiological processes, pathogenesis, and synthesis of important biochemicals.
- Mutations can occur during the replication stage of cell division and are usually triggered by several chemical, environmental, and infectious factors.
- Viruses usually have a tendency to mutate at a very high rate and develop drug resistance that leads to the emergence of new viral outbreaks at a high frequency.
- It was found that the monkeypox virus has **47 mutations** in its genome and this was based on an analysis of the sequences from the current outbreak in different parts of the world.
- It was inferred there has been human-to-human transmission of the virus due to the long-sustained adaptivity of the virus. This inference has been countered by many experts.

Counter Arguments on the Viral Mutations:

- Many experts put forth that the rate of mutation in the Monkeypox virus has not been well established.
- The number of mutations reported is based on the limited data from other poxviruses which were studied earlier.
- The observed 47 mutations in the viral genome have given rise to further complexities in understanding infectious transmission. This number is significantly larger than expected and can mean:
 - The mutation rate estimates for the monkeypox virus could differ from one host to another.
 - The rate differed in the intermediate evolutionary paths
 - Their representatives (of the monkeypox virus) have not been sequenced properly to find out the evolutionary path of these specific isolates that exhibit mutations.

Sustained Transmission: Delving deeper

- During a viral infection, the host cells prevent the virus from multiplying through enzymatic actions. Such enzymatic pathways give rise to mutations.
- Considering the mutation pattern of the virus and the inheritance of specific changes with the gradual progress of time, some experts infer that there has been sustained human-to-human transmission.
- There exists a considerable vacuum in the actual understanding of the pattern of transmission of the monkeypox virus. So far, the evidence suggests that many of the

- mutations match the profile of a unique set of enzymes. However, it is still unknown whether these enzymes are found in the primary host, an intermediate or in humans.
- It is difficult to conclusively determine the origin of the enzymatic pathway that triggered mutations in the virus.
- Some experts advocate that the mutations are driven by enzymatic actions and not by
 evolutionary and adaptive mechanisms. This is backed by the evidence that there is no
 change in the sequence of amino acids in the case of the monkeypox mutations and all
 adaptations to evolutionary pressure are due to changes in the amino acid sequence.
- The high rate of mutations in the monkeypox virus within a short period does open doorways to multiple questions that can only be answered through deeper studies on the viral pathogenesis that offer substantial evidence of defining the transmission pattern.

Guidelines on the Monkeypox infection:

- The document formulated by the Ministry of Health and Family Welfare offers precise and relevant information about the global prevalence of the Monkeypox virus.
- The guidelines provide the following information:
 - Epidemiology
 - Kind of virus involved
 - Possible origin of the virus
 - incubation period
 - Symptoms

6.2 Clinical samples to be collected from the cases as per the criteria mentioned below at Table 1:

Traveller from outbreak /endemic region or Community Transmission			
Asymptomatic	 Observe for the development of any signs and symptoms for 21 days' post exposure If signs and symptoms develop, collect specimens as per the duration of illness as mentioned below 		
	Rash phase**	Recovery phase	
Symptomatic	*Lesion roof- with scalpel or plastic scrapper collected in plain tube *Lesion fluid with intradermal syringe *Lesion base scrapings with sterile polyester swab collected in plain tube *Lesion crust in plain tube NPS/OPS in dry plain tube [without any bacterial medium or VTM] Blood collected in SSGT (4-5 ml) Blood collected in EDTA (2-3ml) Urine in sterile urine container (3-5ml)	Blood collected in SSGT (4-5 ml) Urine in sterile urine container (3-5 ml)	

^{*} The specimens from lesion should be collected from multiple sites

Image Source: main.mohfw.gov.in

- This is a preventive step by the Government of India in spreading awareness among the citizens.
- The guidelines recommend that contacts be monitored every day for the onset of signs/symptoms for a period of 21 days from the last contact with a patient or their contaminated materials during the infection.
- Suspected cases include a person of any age with a history of travel to affected countries within the last 21 days.
- Such an individual must exhibit symptoms like:
 - Unexplained rashes
 - Swollen lymph nodes
 - Fever
 - Body ache
 - Profound weakness
 - Eye pain
 - Blurry vision
 - Chest pain

^{**} A clear lesion images should be sent along with the case record form (preferably on the email ID mentioned below)

Table 2: Supportive management of Monkeypox			
Component of management	Symptoms/Signs	Management	
Protection of compromised skin and mucous membranes	Skin rash	 Clean with simple antiseptic Mupironic Acid/Fucidin Cover with light dressing if extensive lesion present Do not touch/ scratch the lesions In case of secondary infection relevant systematic antibiotics may be considered 	
	Genital ulcers	Sitz bath	
	Oral ulcers	Warm saline gargles/ oral topical anti-inflammatory gel	
	Conjunctivitis	 Usually, self-limiting Consult Ophthalmologist if symptoms persist or there are pain/ visual disturbances 	
Rehydration therapy and nutritional support	Dehydration can occur in association with poor appetite, nausea, vomiting and diarrhoea	Encourage ORS or oral fluids Intravenous fluids if indicated Encourage nutritious and adequate diet	
Symptom alleviation	Fever	Tepid sponging Paracetamol as required	
	Itching/Pruritus	Topical Calamine lotionAntihistaminics	
	Nausea and vomiting	Consider anti-emetics	
	Headache/ malaise	Paracetamol and adequate hydration	

Image Source: main.mohfw.gov.in

- The cases are detected in a laboratory by detection of unique sequences of the viral DNA either by polymerase chain reaction or by sequencing.
- According to the guidelines, all clinical specimens are to be transported to the apex laboratory of the ICMR-NIV Pune, routed through the Integrated Disease Surveillance Programme (IDSP) network of the district/state.

Line of treatment:

- The vaccines that act against smallpox have shown effectiveness in their actions against the monkeypox virus.
- Tecovirimat has been one specific treatment which was approved for smallpox by the US FDA, Health Canada and so on.
- Although the smallpox vaccine is majorly employed as a line of treatment for monkeypox, the extent of efficacy and protection still lacks clarity.

Nut Graf

There is a need for profound scientific intervention in the study of viral mutations and the related factors considering the lack of substantial evidence about the mode of transmission of the Monkeypox

virus which is an emerging threat. The meticulous guidelines issued by the Government of India, alarming its citizens, is a preventive step to tackle the viral outbreak at a very early stage.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

1. Why are FPIs dumping Indian stocks?

Syllabus: GS III, Economy, mobilisation of resources, growth, development

Prelims: FPI

Mains: Impact of the sell-off by FPIs on the economic recovery of India.

Context: The Foreign Portfolio Investors have set a current trend of considerably high sell-off in the Indian stock market ever since the lockdown. This has led to a significant decline in the benchmark indices, reducing the market capitalisation of companies.

Understanding FPIs:

- These are investors who invest funds in markets outside their country.
- Such investments are in the form of equities, bonds and mutual funds.
- These FPIs are not active shareholders and they do not impose control over the companies whose shares they hold.
- The passive nature of their investment allows them to enter or exit a stock willingly and easily.

Read more about FPI in the linked article

Impact of the FPI sell-off:

- As the FPIs are selling their Indian holdings and transferring the funds back to their home markets, the local currency gets affected significantly.
- This is because they sell rupees in exchange for their home market currency.
- Consequently the supply of rupee in the market increases, thereby declining its value.
- This comes as a major blow to India as it is still recovering from the aftershocks of the pandemic.
- A weaker rupee will increase the outflow of funds for importing the same unit of goods.
- This will be a detrimental effect on the economy, especially in terms of the imports of crude oil prices which are already elevated due to the Russia-Ukraine conflict.

Way ahead:

 The RBI has to intervene and consider the factors responsible for the repatriation of funds by the FPIs from the Indian market and restructure its policy accordingly.

- The economic activities to come back to normalcy will be a time-consuming process. The government, industries and other stakeholders must negotiate terms and conditions with the foreign investors and strengthen the trust factor before the situation worsens further.
- The tightening policy of the central bank (RBI) to control inflation has also played a crucial role in declining the confidence of foreign investors to continue business in the Indian market. This issue needs to be addressed.
- Economists suggest that the investors are advised to assess and then invest in stocks that include the resilient sectors.
- There are certain measures that can be taken to buffer the impact of high sell-off by the FPIs. These measures include:
- Positive credit growth
- Meticulous investment plans by the industries
- A considerable budget allocation on capital spending by the government

Nut Graf

The high sell-off by FPIs is anticipated to have a major impact on the economy and can extend the period of economic recovery in the post-pandemic period. However, keeping certain measures with restructured policy in place can act as a catalyst to revive the normal investment cycle.

2. Are Fears of Stagflation Impacting Markets?

Syllabus: GS III, Economy, growth, development

Prelims: Stagflation, Inflation

Mains: Possible outcomes of the Ukraine-Russia war in the context of the Indian economy.

Context: The aftermath of the Russia-Ukraine conflict has imposed more inflationary shocks on different parts of the world, disrupting the progress of the global economy.

Stagflation:

- It refers to the economic conditions which are determined by a stagnant economic output and high price inflation.
- The idea of stagflation gathered momentum during the intense economic crisis in the US which included recession, and high price inflation due to oil shocks.
- It acts as one of the key macroeconomic gauges used by economists to assess the overall economic health.
- It has been practically observed that high economic growth invariably spurs faster inflation.
 This is why the central banks issue a specific mandate to control price rise beyond a targeted level.
- The proper maintenance of economic output (expressed in terms of GDP), employment level, and inflation rate are essential for the performance of an economy in its entirety.
- Stagflation is witnessed when the overall pace of the economy slows down to a large extent.
- This results in high unemployment, reduced economic activities, shutting down of businesses and so on.

 Highlighting the current situation in India, the major concern of stagflation is raised due to the slowdown of economic activity during the pandemic and the implications of the Russia-Ukraine conflict which has nurtured a global supply shock.

Conclusion:

Before any intervening step, it is necessary to avert the historic inflationary shocks that have stemmed from the ongoing geopolitical tensions. It is a major requirement to establish price stability in order to bring back the global economy to normalcy.

Nut Graf

The challenge for policymakers, especially central banks, is to ensure optimum conditions for output growth to take place at a healthy pace. This will pave the way for businesses to create more jobs, bringing down the unemployment rate and will result in an ecosystem with stable prices.

F. Prelims Facts

1. Star Temperature

Syllabus: GS III, Science and Technology, awareness in the fields of Space

Prelims: Himawari- 8

Context: The **"great dimming"** of the red supergiant star named Betelgeuse has been observed by a Japanese weather satellite.

Delving deeper:

- Himawari 8 is a weather satellite that observed a cloud of dust and a drop in the star's temperature by 140°C.
- The Betelgeuse star is the second brightest star in the Orion constellation and is the 10th brightest star in the night sky.
- The "great dimming" refers to the extreme loss of brightness of a star.
- Usually, the great dimming of a star is perceived as a signal that the star is about to explode.
- This provided important clues about the astronomical events occurring in the star.
- This discovery enabled an understanding of the manner in which a red supergiant star loses its mass, ultimately exploding as a supernova.

About Himawari 8

- It is a Japanese weather satellite and is considered the 8th geostationary weather satellite.
- It is operated by the Japanese Meteorological Agency.
- This spacecraft was constructed by Mitsubishi Electric in association with Boeing.
- It has various functions such as:
 - Weather forecasting
 - Weather-related reports for Japan, East Asia and the Western Pacific region
 - Ensuring the safety of ships

- Observing the environment of the earth
- Studying different astronomical events
- The data recorded by the satellite is freely shared with other meteorological agencies in other countries.

G. Tidbits

Nothing here for today!!!

H. UPSC Prelims Practice Questions

Q1. Consider the following statements:

- 1. Uranus has the lowest density of all the planets in our solar system.
- 2. Neptune is considered as a lopsided planet
- 3. Uranus and Neptune are often called planetary twins.

Which of the statements given above is/are correct?

- 1. 1 only
- 2. 2 and 3 only
- 3. 3 only
- 4. 1, 2 and 3

Answer: c

Explanation:

- It is Saturn which has the lowest density among all the planets as it is mostly composed of gases and is referred to as the gas giant. This makes option 1 incorrect.
- Uranus is the planet which exhibits lopsided oddity. It is the only planet that spins on its sides. This makes option 2 incorrect.
- Due to the similarity in terms of their mass, size, composition, and rotation, Uranus and Neptune are known as planetary twins.
- This makes option 'c' the correct answer.

Q2. Munneru River is a tributary of which amongst the following Rivers?

- 1. Cauvery
- 2. Godavari
- 3. Krishna
- 4. Narmada

Answer: c

Explanation:

• Munneru river is the left tributary of the Krishna river.

- It originates from the Warrangal district of Telangana and flows into the districts of Khammam and Krishna.
- It is named after Rishi Maudgalya who was believed to have created the river through his spiritual powers.
- Therefore, option 'c' is the correct answer.

Q3. Which of the following statements about International Telecommunication Union (ITU) is/are correct?

- 1. It is a specialized agency of the United Nations
- 2. ITU is headquartered in Geneva, Switzerland.
- 3. The Global Cybersecurity Index (GCI) is an initiative of ITU

Options:

- 1. 1 and 3 only
- 2. 2 only
- 3. 1, 2 and 3
- 4. None

Answer: c

Explanation:

- ITU is a specialised agency of the United Nations for Information and Communications Technologies which was established in 1865. This makes option 1 correct.
- ITU is headquartered in Geneva, Switzerland with 193 member countries and 6 regional offices in Europe, Africa, America, Asia-Pacific, Arab States and the Commonwealth Independent States. This makes option 2 correct.
- The Global Cybersecurity Index (GCI) is an initiative of ITU to protect and support the rights of people to communicate safely.
- As all the statements are correct, option 'c' becomes the right answer.

Q4. Consider the following statements with respect to 'Lifestyle for the Environment (LiFE) Movement':

- The idea of LiFE was introduced by the Prime Minister Shri Narendra Modi during the 26th United Nations Climate Change Conference of the Parties (COP26) in Glasgow
- 2. The idea promotes an environment conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and destructive consumption'.

Which of the statements give above is/are correct?

- 1. 1 only
- 2. 2 only
- 3. Both
- 4. None

Answer: c

Explanation:

- The Prime Minister has launched the global initiative LiFE movement which upholds the
 objectives of putting collective efforts to protect the environment. This idea was propounded
 during the COP26 at Glasgow. This makes option 1 correct.
- The LiFE movement does aim at mindful and deliberate utilisation of natural resources by eliminating misuse of resources through destructive consumption. This makes option 2 correct.
- Therefore, the right answer to this question is option c.

Q5. Consider the following statements:

- 1. It was during the reign of Iltutmish that Chengiz Khan reached the Indus in pursuit of the fugitive Khwarezm prince.
- 2. It was during the reign of Muhammad-bin-Tughluq that Taimur occupied Multan and crossed the Indus.
- 3. It was during the reign of Deva Raya II of Vijayanagara Empire that Vasco da Gama reached the coast of Kerala.

Which of the statements given above is/are correct?

- 1. 1 only
- 2. 1 and 2 only
- 3. 3 only
- 4. 2 and 3 only

Answer: a

Explanation:

- It is true that Chengiz Khan invaded India during the reign of Iltutmish by defeating the Kharezmian empire in the battle of Indus in 1221.
- Taimurinvaded Northern India in 1398 by attacking the Delhi Sultanate which was under the rule of the Tughlaq dynasty. It was only after crossing the Indus river Taimur captured Multan. This makes option 2 incorrect.
- The reign of Deva Raya II of Vijayanagara Empire ended much before Vasco da Gama reached the coast of Calicut in 1498. This makes option 3 incorrect.
- This makes option 'a' as the correct answer.

CHECK ANSWERS:-

Watch the detailed explanation of the questions in the video below:



1,317

I. UPSC Mains Practice Questions

- 1. What has led to the selloff by foreign portfolio investors? Does it affect ongoing economic recovery? (10 Marks, 150 Words)
- 2. Discuss the likely origins, symptoms, modes of transmission and treatment for monkeypox. (10 Marks, 150 Words)