



An Institute for Civil Services

IAS PRELIMS 2020

**COMPLETE REVISION OF
CURRENT AFFAIRS
through
500 MCQs**

DAY: 42

**QUESTIONS
with ANSWER HINTS**

GS SCORE

An Institute for Civil Services

IAS 2021-22

GS FOUNDATION

ONLINE CLASSES

LIVE & Interactive

Batch Starts

15

**SEPTEMBER
2020**

Visit:  **www.iasscore.in**



QUESTIONS

1. With which of the following companies/organizations, The Ministry of Electronics and Information Technology (MeitY) has signed a statement of intent to roll-out 'Build for Digital India' programme?

- (a) Facebook
- (b) Microsoft
- (c) Google
- (d) Powerhouse Cooper

2. Consider the following statements about combatants to Tuberculosis:

1. Rapid molecular, sputum, and culture-based methods are only 50% accurate in the early detection of Tuberculosis in patients.
2. National Strategic Plan set a target of TB elimination by 2025
3. The Health Ministry has signed a Memorandum of Understanding (MoU) with Wadhwani Institute for Artificial Intelligence (AI) to explore the application of Artificial Intelligence technology in its fight against tuberculosis (TB).
4. MDR-TB is not resistant to anti-TB drugs.

Which of the above statements is/are correct?

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

3. Consider the following statements about National Electronics Policy (NEP), 2019:

1. It aims at making India as a global hub for Electronics System Design and Manufacturing (ESDM).
2. It promote domestic manufacturing in the entire value-chain of ESDM, including core components and materials.
3. Modified Special Incentive Package Scheme (M-SIPS) was launched under this policy in 2019

Which of the above statements is/are correct?

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

4. Consider the following statements regarding Project Miniature Sun:

1. It is India's indigenously designed and developed plasma based fusion reactor.
2. It aims to harness fusion energy by mimicking the sun and other stars.

Which of the above statements is/are correct?

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

5. Consider the following statements regarding "K2-18b"

1. It is a potentially 'habitable' planet
2. It is the only planet orbiting a star outside the Solar System that is known to have both water and temperatures that can support life.
3. It is eight times the mass of Jupiter.

Which of the above statements is/are correct?

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

6. EX TSENTR is recently seen in news, it is:

- (a) An asteroid which might strike the Earth surface in recent future.
- (b) Part of the annual exercises of the Russian Armed Forces' annual training cycle.
- (c) A military exercise between India and Thailand.
- (d) A vaccine to prevent Malaria in tropical countries.

7. Consider the following statements regarding eSIM technology

1. eSIM technology supports multiple accounts and switching between them is super easy.
2. It will make devices smaller.
3. It could be extremely helpful for wearable devices.

Which of the above statements is/are correct?

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

8. Consider the following statements regarding African Swine Fever (ASF):

1. It is haemorrhagic viral disease of pigs.
2. It is related to classical swine fever (CSF).
3. It severely impacts human health and could be lethal.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) None of the above

9. Consider the following pairs:

<i>Vector</i>	<i>Disease</i>
1. Anopheles Mosquito	Japanese encephalitis
2. Sandflies	Kala Azar
3. Aedes mosquito	Rift Valley fever

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

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

10. Consider the following statements regarding Hog technology in Railways:

1. The new technology is expected to transform the way air conditioners (ACs) run and power is supplied in the railway coaches.
2. It will ensure sustainable use of resources.

Which of the above statements is/are correct?

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

GS MAINS

FOUNDATION 2021

BASIC TO ADVANCE

①

GS Mains
Paper 1, 2,
3, 4
& Essay

②

GS Mains
Test Series

③

Ethics
Test Series

④

Essay
Test Series

⑤

2 Years
Contemporary
Issues
Covered

⑥

Study
Material

BATCH STARTS**15 SEPTEMBER, 2020****PROGRAMME FEE** ₹ 65,000 + GST**DURATION** 15 September, 2020 to 15 March, 2021**TIMINGS** 5:00 PM to 8:30 PM (4 Hrs. Daily)www.iasscore.in

ANSWER HINTS

Answer Key

Q. 1 (c)	Q. 3 (b)	Q. 5 (b)	Q. 7 (d)	Q. 9 (d)
Q. 2 (c)	Q. 4 (b)	Q. 6 (b)	Q. 8 (a)	Q. 10 (c)

1. Correct Option: (c)

Explanation:

- **Option (c) is correct:** The Ministry of Electronics and Information Technology (MeitY) and **Google** have signed a statement of intent to roll-out 'Build for Digital India' programme.

Supplementary notes:

Build for Digital India Programme

- The Ministry of Electronics and Information Technology (MeitY) and Google have signed a statement of intent to roll-out 'Build for Digital India' programme.

About:

- The programme will give engineering students a platform to develop technology-based solutions to address key social problems.
- As part of the programme, engineering students across the country will be invited to apply and join in a learning journey that will help them transform their bright ideas into real-world solutions.
- Applicants will take part in online and offline learning opportunities on key technologies such as machine learning, cloud and android.
- These will be offered through Google's Developer Student Club network and other Google Developer networks.
- Google will also offer mentorship sessions in product design, strategy and technology to the most promising products and prototypes.

2. Correct Option: (c)

Explanation:

- **Statement 4 is incorrect:** MDR-TB is resistant to anti-TB drugs like isoniazid and rifampicin

Supplementary notes:

Tuberculosis

- **Rapid molecular tests:** This tests is used to detect influenza viral RNA or nucleic acids in respiratory specimens with high sensitivity and high specificity. Notably, the detection of influenza viral RNA or nucleic acids by molecular assays does not necessarily indicate detection of viable virus or on-going influenza viral replication.
- **Sputum smear microscopy:** This technique requires the examination of sputum samples using a microscope to determine the presence of bacteria. In the current case definitions recommended by WHO, one positive result is required for a diagnosis of smear-positive pulmonary TB.
- **Culture-based methods:** A culture test involves studying bacteria by growing the bacteria on different substances. This is to find out if particular bacteria are present. In the case of the TB culture test the test is to see if the TB bacteria *Mycobacterium tuberculosis*, are present.
- Tuberculosis (TB) is an infectious disease usually caused by ***Mycobacterium tuberculosis* (MTB) Bacteria**. Tuberculosis generally affects the lungs, but can also affect other parts of the body.
- **India is the country with the highest burden of TB According to the World Health Organization (WHO)** India has close to 27 lakh TB cases every year and 4.23 lakh cases die (2016).
- **National Strategic Plan (NSP) for 2017-2025** has been set up in line with other health sector strategies and global efforts, such as the draft National Health Policy 2015, World Health Organization's (WHO) End TB Strategy and the Sustainable Development Goals (SDGs) of the United Nations (UN) for TB

elimination by 2025.

- The Health Ministry has signed a Memorandum of Understanding (MoU) with **Wadhvani Institute for Artificial Intelligence (AI)** to explore the application of Artificial Intelligence technology in its fight against tuberculosis (TB) in 2019.
- **Revised National TB Programme (RNTCP)** aims at adoption of AI technologies for building easy TB combats. RNTCP is **the state-run tuberculosis (TB) control initiative** of the Government of India.
- As per **the National Strategic Plan 2012–17**, the program has a vision of achieving a **“TB free India”**, and aims to achieve Universal Access to TB control services.
- As part of the collaboration, Wadhvani AI would support the National TB programme by helping it become AI-ready which includes developing, piloting, and deploying AI-based solutions. It would support the programme in vulnerability and hot-spot mapping, modeling novel methods of screening and diagnostics.
- India plans **to end TB by 2025**, five years ahead of the Global Sustainable Development targets. Meanwhile, World Health Organization (WHO) stated that countries aiming to reduce their TB burden by 2035.
- Most of the **tests used for early detection of TB are not promising**. For example, sputum testing is only 50% accurate and frequently misses the disease in its early stages. Molecular testing – while highly accurate – is too expensive for population screening in most regions. AI is very helpful in detection of TB with accuracy and precision.
- MDR-TB is resistant to anti-TB drugs like isoniazid and rifampicin

3. Correct Option: (b)

Explanation:

- **Statement 3 is incorrect:** M-SIPS was launched in 2012 under NEP, 2012 and ended in 2018.

Supplementary notes:

National Electronics Policy (NEP)

- National Electronics Policy (NEP) is launched in 2019 and replaced the earlier National Electronics Policy, 2012. **It aims at making India a global hub for Electronics System Design and Manufacturing (ESDM) by creating an enabling environment for the industry to compete globally.** It promotes domestic manufacturing in the entire value-chain of ESDM, including core components and materials to increase the domestic value

addition and reduce dependence on import of electronic goods by focusing on scale, skill and technology.

- NEP 2019 primarily targets increasing the electronic goods exports. The rising trend has been seen in electronics exports amid slowdown in Indian economy. **The total value of production of electronic goods has increased from \$31.2 billion in FY15 to \$65.5 billion in FY19. Electronics exports are led by mobile phones. India has become the 2nd largest producer of mobile phones, replacing Vietnam.** India started to become an **alternate production destination because of: 1). Pull Factors** include potential domestic demand and government policies to boost electronic exports. 2). **Push Factors** include trade tensions between the US and China. This is expected that the positive trend in India's electronic exports to continue.
- **Modified Special Incentive Package Scheme (M-SIPS):** M-SIPS was launched in 2012 under NEP, 2012 and ended in 2018.

4. Correct Option: (b)

Explanation:

- **Statement 1 is incorrect:** India is a major part of this project but it is **not indigenously designed and developed** in India.

Supplementary notes:

Project Miniature Sun

- Nick named as **‘miniature sun’**, **International Thermonuclear Experimental Reactor (ITER)** is the largest plasma based fusion reactor ever built.
- It is the costliest technological project of the 21st century with an estimated construction cost of \$25 Billion.
- The project site is located in **Cadarache, Southern France**.
- The term **‘Thermonuclear’** indicates the **nuclear fusion reaction**.
- ITER will be two times the size of the largest fusion reactor present and the chamber volume will be 10 times the present one.
- It is worth mentioning here that the mega project is undertaken by USA, Russia, South Korea, China, Japan, European Union and India.

India's Contribution

- India has also provided a **Cryostat**, the **world's largest refrigerator**, weighing around 3800 tons and made with stainless steel. It is built by Larsen & Toubro



An Institute for Civil Services

IAS 2021

GS MAINS ADVANCE

GS Paper 1, 2, 3, 4 + Essay + Mains Test Series

A Solution for 1250 Marks

Online Live Interactive Classes

BATCH-2

STARTS

21 SEPTEMBER

6:00 PM to 8:30 PM

Fee ₹ 42,000 + GST

Off. 1B, 2nd Floor, Pusa Road
Karol Bagh, New Delhi-110005,
(Adjacent to Karol Bagh Metro Gate No. 8)

+91 8448496262

info@iasscore.in

/iasscore



www.iasscore.in

5 Months Course to cover Key concepts of GS Mains paper 1, 2, 3 & 4

Complete coverage of contemporary issues of last two years

Detailed Answer Writing session on each subject

Mains Test Series including 25 Tests (10 Sectional + 3 Contemporary Issues + 8 Full Mock + 4 Essay Mock)

Essay Classes + Essay Practice Workbook

Study Material of Contemporary Issues

- It will cover the entire structure and keep the magnetic components at a very low temperature (less than -200°C) for maintaining the superconductivity of magnets.

5. Correct Option: (b)

Explanation:

- **Statement 3 is incorrect:** It is eight times the mass of Earth and not Jupiter.

Supplementary notes:

K2-18b

- K2-18b an exoplanet that orbits around a small red dwarf star K2-18, nearly 110 light-years away in the constellation Leo.
- K2-18b was first discovered in 2015 by Nasa's now retired Kepler space telescope.
- It was found orbiting within the red dwarf star's habitable zone, making it an ideal candidate to have liquid surface water.
- Having a mass that is eight times greater than Earth's, K2-18b is also known as Super-Earth exoplanets with masses between those of Earth and Neptune.
- The Kepler satellite mission discovered nearly two-third of all known exoplanets. While the mission indicated that five to 20 per cent of these are located in the habitable zone of their stars.
- Water vapour has been detected on K2-18b a potentially 'habitable' planet by Nasa and the European space agency's Hubble Space Telescope.
- K2-18b could be the only exoplanet known to have both water and temperatures in its atmosphere to sustain liquid water on a rocky surface
- The new finding offers an 'unprecedented opportunity' to gain insight into the composition and climate of habitable-zone planets.
- K2-18b is not 'Earth 2.0' as it is significantly heavier and has a different atmospheric composition.
- This study contributes to our understanding of habitable worlds beyond our Solar System and marks a new era in exoplanet research.

What Is an Exoplanet?

- All of the planets in our solar system orbit around the Sun. Planets that orbit around other stars are called exoplanets.
- Exoplanets are very hard to see directly with telescopes. They are hidden by the bright glare of the stars they orbit.
- There are many methods of detecting exoplanets. Transit photometry and Doppler spectroscopy have found the most, but these methods suffer from a clear observational bias favoring the detection of planets near the star; thus, 85% of the exoplanets detected are inside the tidal locking zone.
- One way to search for exoplanets is to look for "wobbly" stars. A star that has planets doesn't orbit perfectly around its center. From far away, this off-center orbit makes the star look like its wobbling.
- The most massive planet listed on the NASA Exoplanet Archive is HR 2562 b, about 30 times the mass of Jupiter.

6. Correct Option: (b)

Explanation:

- **Option (b) is correct:** Exercise TSENTR2019 is part of the annual series of large scale exercises that form part of the Russian Armed Forces' annual training cycle.

Supplementary notes:

EXTSENTR

- Russia holds this major military exercise every year at one of its four military Commands i.e Vostok (East), Zapad (West), TSENTR (Centre) and Kavkas (South). The series of exercise rotates through the four main Russian operational strategic commands.
- These annual exercises have slowly begun taking an international character, with Belarus participating in ZAPAD-2017 and China and Mongolia participating in VOSTOK-2018.
- This year's Exercise TSENTR 2019 will be conducted by Central Military Commission of Russia. Apart from host Russia, military contingents from China, India, Kazakhstan, Kyrgyzstan, Tajikistan, Pakistan and Uzbekistan will also take part in this mega event.
- The exercise aims at evolving drills of the participating armies and practicing them in the fight against the scourge of international terrorism thereby ensuring military security in the strategic central Asian region.

- The TSENTR-2019 strategic measures will focus on evaluating the level of troop preparedness, the acquisition of the required skills and raising the level of inter-operability and demonstrate the readiness of the participating armies.

7. Correct Option: (d)

Explanation:

- **All statements are correct**

Supplementary notes:

eSIM

- An eSIM is exactly what it sounds like an electronic, or embedded, SIM. Instead of a physical card, SIM technology is built right into your phone. It's a small chip that's used to authenticate our identity with our carrier.
- One of the advantages of eSIM technology is that it makes it much easier to switch carriers. Instead of having to order a new SIM and wait around for it to arrive, you can switch to a new carrier straight from your phone.
- **eSIM technology supports multiple accounts and switching between them is super easy.**
- **It will help make devices smaller.**
- **It could be extremely helpful for wearables devices.**

8. Correct Option: (a)

Explanation:

- **Statement 2 is incorrect:** Although signs of ASF and classical swine fever (CSF) may be similar, the ASF virus is not related to the CSF virus.
- **Statement 3 is incorrect:** ASF is not a risk to human health as it is relatively harmless.

Supplementary notes:

What is African swine fever?

- Historically, outbreaks have been reported in Africa and parts of Europe, South America, and the Caribbean. More recently (since 2007) the disease has been reported in multiple countries across Africa, Asia and Europe, in both domestic and wild pigs.
- **African swine fever (ASF) is a highly contagious haemorrhagic viral disease (severe illness, sometimes associated with bleeding), of domestic and wild pigs.**
- It is caused by a large DNA virus of the Asfarviridae family, which also infects ticks of the genus Ornithodoros.

Transmission and spread:

- The epidemiology of ASF is complex and varies depending on the environment, types of pig production systems, the presence/absence of competent tick vectors, human behaviour, and the presence/absence of wild pigs.
- Direct contact with infected domestic or wild pigs: This transboundary animal disease (TAD) can be spread by live or dead pigs, domestic or wild, and pork products.
- Indirect contact, through ingestion of contaminated material (e.g. food waste, feed, or garbage). Contaminated fomites, or biological vectors (soft ticks of the genus Ornithodoros) where present.

Prevention and control:

- Currently there is no approved vaccine for ASF.
- United Nations Food and Agriculture Organization (FAO) reported that ASF has caused the deaths of more than 3.7 million pigs across a vast swathe of Asia, primarily in its east and south-east, where pork is the primary meat staple.
- **Although signs of ASF and classical swine fever (CSF) may be similar, the ASF virus is unrelated to the CSF virus.**
- **ASF is not a risk to human health as it is relatively harmless.**

9. Correct Option: (d)

Explanation:

- **All pairs are correctly matched**

Supplementary notes:

Meaning of Vectors

- Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans.
- Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal.
- Mosquitoes are the best known disease vector. Others include ticks, flies, sandflies, fleas, triatomine bugs and some freshwater aquatic snails.
- Meaning of Vector-borne diseases:
- Vector-borne diseases are human illnesses caused by parasites, viruses and bacteria that are transmitted by vectors.

- The major vector-borne diseases, together, account for around 17% of all infectious diseases. The burden of these diseases is highest in tropical and subtropical areas and they disproportionately affect the poorest populations.
- Since 2014, major outbreaks of dengue, malaria, chikungunya, yellow fever and Zika have afflicted populations, claimed lives and overwhelmed health systems in many countries.

Main vectors and diseases they transmit:

Vector	Disease
Aedes mosquito	<ul style="list-style-type: none"> • Chikungunya • Dengue fever • Lymphatic filariasis • Rift Valley fever • Yellow fever • Zika
Anopheles mosquito	<ul style="list-style-type: none"> • Malaria • Lymphatic filariasis • Culex mosquito • Japanese encephalitis • Lymphatic filariasis • West Nile fever
Sandflies	<ul style="list-style-type: none"> • Leishmaniasis (Kala-Azar) • Sandfly fever (phlebotomus fever)
Ticks	<ul style="list-style-type: none"> • Crimean-Congo haemorrhagic fever • Lyme disease

	<ul style="list-style-type: none"> • Relapsing fever (borreliosis) • Tick-borne encephalitis • Tularaemia
Triatomine bugs	<ul style="list-style-type: none"> • Chagas disease (American trypanosomiasis)
Tsetse flies	<ul style="list-style-type: none"> • Sleeping sickness (African trypanosomiasis)
Fleas	<ul style="list-style-type: none"> • Plague (transmitted by fleas from rats to humans) • Rickettsiosis
Black flies	<ul style="list-style-type: none"> • Onchocerciasis (river blindness)
Lice	<ul style="list-style-type: none"> • Typhus and louse-borne relapsing fever

10. Correct Option: (c)

Explanation:

- **Both statements are correct**

Supplementary notes:

HOG Technology

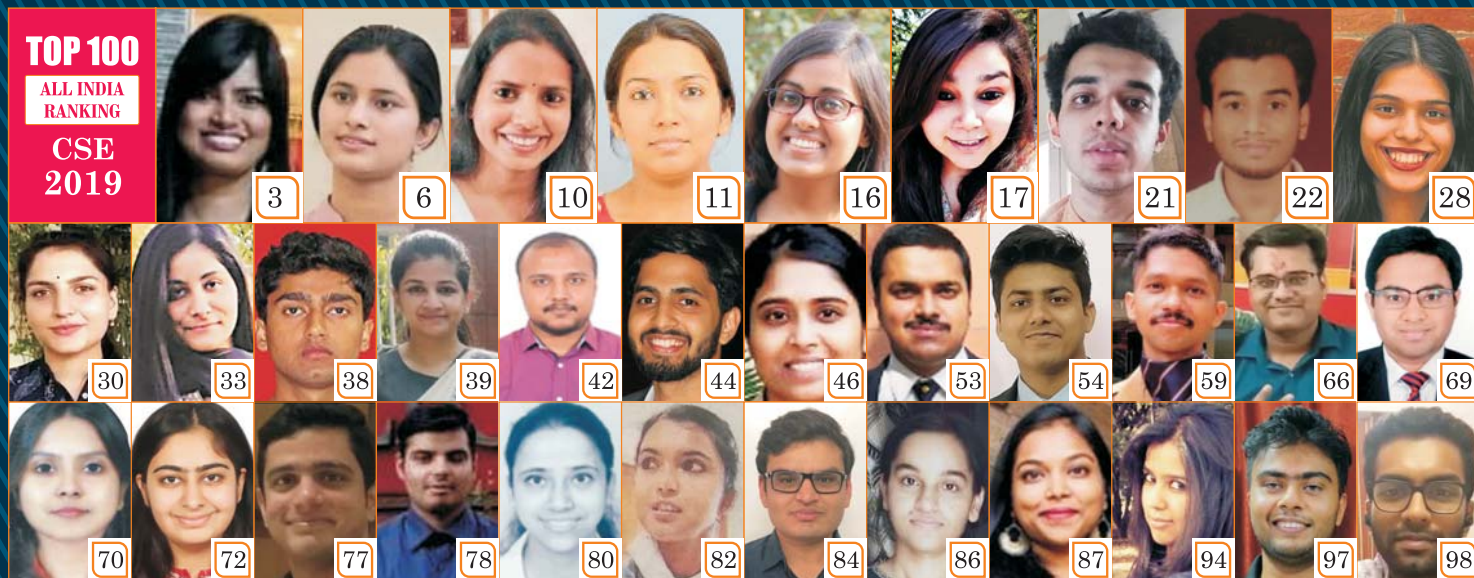
- The new technology is expected to transform the way air conditioners (ACs) run and power is supplied in the **railway coaches**
- In HOG technology, power is fed from the electric locomotive to the train to cater for the Hotel Load of the train.
- It will **reduce the power consumption** to a drastic level thus opening the door towards sustainable use of resources.



TOP 100

ALL INDIA RANKING

CSE 2019



TOP 100

ALL INDIA RANKING

CSE 2018



TOP 100

ALL INDIA RANKING

CSE 2017



TOP 100

ALL INDIA RANKING

CSE 2016



TOP 100

ALL INDIA RANKING

CSE 2015



SUCCESS IS A PRACTICE WE DO!