

**21-01-2022****'PM Gati Shakti' Scheme****Question:** Consider the following statements:

1. Its objective is to ensure overall planning and execution of infrastructure projects.
2. Geospatial data will be available in more than 200 layers on this portal, which will include the existing infrastructure like roads, highways, railways and toll plazas as well as geographical information about forests, rivers and district boundaries, thereby Assistance in planning and obtaining approvals.
3. The 'PM Gati Shakti' portal will have a facility for various government departments to track the progress of various projects, especially projects with multi-sectoral and multi-sectoral impact, in real time and at a centralized location.

Which of the above statement(s) is true -

- (A) 01 and 02 (B) 02 and 03
(C) 01 and 03 (D) All of the above

Answer - (D) All of the above

Role - 'PM Gati Shakti' is a digital platform under which 16 Ministries including the Ministry of Railways and Roadways will be brought together for integrated planning and coordinated implementation of infrastructure connectivity projects.

Exam Useful Points -

- Its objective is to ensure overall planning and execution of infrastructure projects.
- Geospatial data will be available in more than 200 layers on this portal, which will include existing infrastructure like roads, highways, railways and toll plazas as well as geographical information about forests, rivers and district boundaries, which will help in planning Assistance in making and obtaining approvals.
- The objective of PM Gati Shakti is 'a centralized portal for all departments to keep a close eye on each other's projects and to enable each department to interact with each other by exchanging critical data in order to comprehensively plan and execute projects. Be sure to stay abreast of the activities.
- Through this, various departments will be able to prioritize their projects through interaction with different sectors.
- Multi-modal connectivity will provide integrated and seamless connectivity for movement of people, goods and services from one mode of transport to another. The move will facilitate last mile connectivity to the infrastructure and also reduce the travel time.
- Over the past several decades, countless problems have come in the way of building infrastructure in India. There was a severe lack of coordination between the various departments.



- For example, once a road was built, other agencies would re-dug the road constructed for activities like laying underground cables, gas pipelines, etc. This has severely affected the road infrastructure and movement of the country.
- In addition, logistics cost in India is around 13-14 per cent of GDP while in developed economies it is around 7-8 per cent of GDP. The high cost of logistics affects the 'cost structures' within the economy, and makes it more expensive for exporters to ship goods to buyers.

ARTIFICIAL MOON OF CHINA

Question: Consider the following statements:

1. This research centre will probably be officially launched later this year.
2. The project aims to "end" gravity, within a 60 cm vacuum chamber, by using powerful magnetic fields.
3. The diameter of this artificial moon or 'mini moon' is about two feet. Its artificial surface is made from such rocks and dust.

Which of the above statement(s) is true -

- (A) 01 and 02 (B) 02 and 03
(C) 01 and 03 (D) All of the above

Answer - (D) All of the above

Role - Recently, China has built an 'Artificial Moon Research Facility'. This feature is able to reduce the gravity level by using magnetism.

Exam Useful Points -

- This research centre will probably be officially launched later this year.
- The project aims to "end" gravity, within a 60 cm vacuum chamber, by using powerful magnetic fields.
- The diameter of this artificial moon or 'mini moon' is about two feet. Its artificial surface is made from such rocks and dust.
- This research centre is located in Xuzhou, the eastern city of Jiangsu Province, China.
- China is planning to use this research centre to test equipment and technology in a low-gravity environment similar to the Moon, and to test the likelihood of its experiments on the lunar surface being successful.
- This research station is also expected to help in determining the possibility of human settlement on the Moon.
- ^ The idea of developing an artificial moon centre has its roots in experiments conducted by Russian-born physicist Andre Geim. In his experiments, 'Andre Geim' tried to lift a frog with the help of a magnet. This physicist was later awarded the Nobel Prize for this unprecedented experiment.



- Magnetic levitation is certainly not the same as 'antigravity', but there are many situations where mimicking microgravity by magnetic fields can be invaluable in space research for 'the possibility of something unexpected happening'.

BrahMos Supersonic Cruise Missile

Question: Consider the following statements:

1. According to DRDO, new technology has been used in this BrahMos missile.
2. According to DRDO, the supersonic BrahMos missile with new additional technologies including control system was test fired from the Integrated Test Range (ITR) Launch Pad III at Chandipur at around 10.45 am. The detailed data of the test is being analyzed.
3. Earlier on 11 January 2022, the BrahMos supersonic cruise missile was successfully test fired from the Indian Navy's INS Visakhapatnam warship. According to DRDO, the advanced sea-to-sea version of the 'BrahMos supersonic cruise missile' was test-fired from INS Visakhapatnam.

Which of the above statement(s) is true -

- (A) 01 and 02 (B) 02 and 03
(C) 01 and 03 (D) All of the above

Answer - (D) All of the above

Role - Recently, on 20 January 2022, India successfully test-fired a new version of the supersonic BrahMos cruise missile. The missile was fired from the Balasore coast of Odisha.

Exam Useful Points -

- According to DRDO, new technology has been used in this BrahMos missile.
- According to DRDO, the supersonic BrahMos missile with new additional technologies including control system was test-fired from the Integrated Test Range (ITR) Launch Pad III at Chandipur at around 10.45 am. The detailed data of the test is being analyzed.
- Earlier on 11 January 2022, the BrahMos supersonic cruise missile was successfully test fired from the Indian Navy's INS Visakhapatnam warship. According to DRDO, the advanced sea-to-sea version of the 'BrahMos supersonic cruise missile' was test-fired from INS Visakhapatnam.
- The BrahMos missile is being manufactured under a joint venture between India and Russia. DRDO represents the Indian side in this joint venture. The missile was test-fired from INS Visakhapatnam, the latest warship of the recently inducted Indian Navy.
- The BrahMos missile is the main weapon system of Indian Navy warships. It has been deployed on almost- almost all surface platforms.



- DRDO has developed a new variant of BrahMos supersonic cruise missile. Recently the range of this cruise missile was increased from 298 km to 450 km.
- The special thing about this missile is that it can be launched from submarine, ship, aircraft or even from land. BrahMos missiles can launch at Mach 2.8 or nearly three times the speed of sound.
- India has deployed a large number of original BrahMos missiles etc. at many places of strategic importance. The missile was test-fired from INS Visakhapatnam, the latest warship of the recently inducted Indian Navy.

□□□□□

