

## TEST - 35 (IPM 2022)

**84. Consider the following about a Gyrocompass.**

1. It is a non-magnetic compass that finds true north by using an electrically powered fastspinning wheel.
2. Large ships typically rely on a gyrocompass, rather than the magnetic compass, since a gyrocompass is not affected by ferromagnetic metal in a ship's hull.

Which of the above is/are correct?

- A. 1 only                      B. 2 only                      C. Both 1 and 2                      D. None

**85. A barrier to trade is a government-imposed restraint on the flow of international goods or services. Which of the following constitute such barriers of trade?**

1. Import quotas
2. Capping foreign direct investment
3. Tax on imports

Select the correct answer using the codes below.

- A. 1 only                      B. 1 and 2 only                      C. 1 and 3 only                      D. 1, 2 and 3

**86. Sound that is perceptible by human beings has frequencies ranging from about 20 Hz to 20,000 Hz. In atmospheric air at standard temperature and pressure, the wavelengths of sound waves corresponding to these frequencies will be**

- A. 17 centimetres to 17 millimetres                      B. 17 metres to 17 millimetres  
C. 17 kms to 17 metres                      D. 17 millimetres to 17 kms

**87. Consider the following about the Supersonic Missile Assisted Torpedo (SMART) system recently tested by the DRDO.**

1. It is designed for enhancing anti-submarine warfare capability beyond the conventional range of torpedos.
2. It can presently only be launched from air-based platforms.

Which of the above is/are correct?

- A. 1 only                      B. 2 only                      C. Both 1 and 2                      D. Neither 1 nor 2

**88. Consider the following about the Imaging X-Ray Polarimetry Explorer.**

1. It maps the magnetic fields of neutron stars and black holes, among other phenomena.
2. It is the first satellite mission that is dedicated to the measure the polarization of X – Rays from different cosmic sources.
3. It seeks to explore general relativistic and quantum effects in extreme environments.

Which of the above is/are correct?

- A. 1 only                      B. 2 and 3 only                      C. 1, 2 and 3                      D. 1 and 3 only

**89. Consider the following statements.**

1. Neutron stars are formed when a massive star runs out of fuel and collapses.
2. Pulsars are stars that do not rotate and yet manage to emit electromagnetic radiation from their magnetic poles.
3. In a typical neutron star, the magnetic field is trillions of times that of the Earth's magnetic field, but in a magnetar, the magnetic field is another 1000 times stronger.

Which of the above is/are correct?

- A. 1 only                      B. 2 only                      C. 1, 2 and 3                      D. 1 and 3 only

**90. Arrange the following cities from west to east as you would see them in a map:**

1. Phuket
2. Singapore
3. Hong Kong
4. Shanghai

Select the correct answer using the codes below.

- A. 1234                      B. 1243                      C. 3124                      D. 2134

**91. Consider the following statements.**

1. The amount of energy a photon has can cause it to behave more like a wave, or more like a particle.
2. The only substantial difference between radio waves, visible light and gamma rays is the energy of the photons.

Select the correct answer using the codes below.

- A. 1 only                      B. 2 only                      C. Both 1 and 2                      D. Neither 1 nor 2

**92. The objectives of the Asia Cooperation Dialogue (ACD), an inter-governmental organization, includes**

1. expand the trade and financial market within Asia
2. increase the bargaining power of Asian countries in the international market
3. developing a knowledge-based society within Asia

Select the correct answer using the codes below.

- A. 1 only                      B. 2 and 3 only                      C. 1 and 2 only                      D. 1, 2 and 3