SCIENCE & TECHNOLOGY UPSC

UPSC PRE 2018

1-In which of the following areas can GPS technology be used?

1. Mobile phone operations 2. Banking operations 3. Controlling the power grids Select the correct answer using the code given below:

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

Answer-(d)

2- Consider the following statements:

1. Light is affected by gravity. 2. The Universe is constantly expanding. 3. Matter warps its surrounding space-

Which of the above is/are the prediction/predictions of Albert Einstein's General Theory of Relativity, often discussed in media?

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

3- When the alarm of your smartphone rings in the morning, you wake up and tap it to stop the alarm which causes your geyser to be switched on automatically. The smart mirror in your bathroom shows the day's weather and also indicates the level of water in your overhead tank. After you take some groceries from your refrigerator for making breakfast, it recognises the shortage of stock in it and places an order for the supply of fresh grocery items. When you step out of your house and lock the door, all lights, fans, geysers and AC machines get switched off automatically. On your way to office, your car warns you about traffic congestion ahead and suggests an alternative route, and if you are late for a meeting, it sends a message to your office accordingly In the context of emerging communication technologies, which one of the following terms best applies to the above scenario?

(a) Border Gateway Protocol (b) Internet of Things (c) Internet Protocol (d) Virtual Private Network Answer-(b)

4- "3D printing" has applications in which of the following?

1. Preparation of confectionery items 2. Manufacture of bionic ears 3. Automotive industry 4. Reconstructive surgeries 5. Data processing technologies

Select the correct answer using the code given below: (a) 1, 3 and 4 only (b) 2, 3 and 5 only (c) 1 and 4 only (d) 1, 2, 3, 4 and 5

Answer-(d)

5- With reference to India's satellite launch vehicles, consider the following statements:

- 1. PSLVs launch the satellite useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
- 2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location in Earth.
- 3. GSLV Mk III is a fourstaged launch vehicle with the first and third stages using solid rocket motors; and the second and fourth stages using liquid rocket engines.

Which of the statements given above is/are correct?

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

Answer-(a)

6- Consider the following

1. Birds 2. Dust blowing 3. Rain 4

Wind blowing Which of the above spread plant diseases?

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

Answer-(d)