



VIVEK TUTORIALS

Practice Test

Std: SSC (E.M)

Subject: Science & Technology I

Time: 60Min

Date : 27/Dec/2019

1 and 10

Max Marks: 30

Q.1 Choose the correct alternative:

2

- 1) ----- and Sunita Williams of Indian origin participated in space explorations through missions organized by NASA.
(a) Yuri Gagarin (b) Neil Armstrong
(c) Rakesh Sharma (d) Kalpana Chawla
- 2) ----- was the first scientist to construct a reflecting telescope.
(d) Johannes Kepler (b) Henry Cavendish
(c) Newton (d) Einstein

Q.2 Find the odd one out:

2

- 1) NASA, ISRO, IRS, PRL
- 2) Mass, potential energy, radius, weight

Q.3 Write the correlated terms:

2

- 1) INSAT : weather study : : IRS : _____
- 2) $G: 6.67 \times 10^{-11} \text{ Nm}^2/\text{kg}^2::g: \text{-----}$

Q.4 State 'True' or 'False', if 'False' correct it:

2

- 1) High earth Orbit are used in applications like meteorology and for carrying signals for telephone, television, radio etc.
- 2) The level of water in the sea changes because of the gravitational force exerted by the moon.

Q.5 Name the following:

2

- 1) First Satellite launched by India.
- 2) Amount of matter present in an object.

Q.6 Answer the following in one line:

2

- 1) Full form of IRS
- 2) For freely falling object we can write the Newton's second equation of motion as _____.

Q.7 Give scientific reason of the following:

4

- 1) Why are geostationary satellites not useful for studies of polar regions?*
- 2) Any object on earth falls vertically downward and not at an angle to the vertical; nor fly off in a horizontal direction.

Q.8 Answer the following:

4

- 1) What are space expeditions? Explain their need and importance in your words.
- 2) What are Newton's laws of motion?*

Q.9 Solve the following:

4

- 1) Complete the table.

Type of satellite	Function of satellite
i) _____	i) Collect information for Security aspects
ii) Broadcast Satellite	ii) _____

- 2) An object thrown vertically upwards reaches a height of 500 m. What was its initial velocity? How long will the object take to come back to the earth? Assume $g = 10 \text{ m/s}^2$.*

Q.10 Solve the following:

6

- 1) Suppose the orbit of a satellite is exactly 35780 km above the earth's surface. Determine the tangential velocity of the satellite.*
- 2) Calculate the value of 'g' on the surface of the earth.

----- All the Best -----

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