

(SOLUTION) Mock Test 11

4 Correct Answer : C

Answer Justification :

Justification: Statement 1: Launched in 2009, the Kepler mission is specifically designed to survey our region of the Milky Way galaxy to discover hundreds of Earth-sized and smaller planets in or near the habitable zone and determine the fraction of the hundreds of billions of stars in our galaxy that might have such planets.

Statement 2: The Transiting Exoplanet Survey Satellite (TESS) is a space telescope for NASA's Explorers program, designed to search for exoplanets using the transit method in an area 400 times larger than that covered by the Kepler mission. It was launched on April 18, 2018 atop a Falcon 9 rocket.

It was led by the Massachusetts Institute of Technology with seed funding from Google.

The mission will monitor at least 200,000 stars for signs of exoplanets, ranging from Earth-sized rocky worlds to huge gas giant planets. TESS, however, will focus on stars that are 30 to 100 times brighter than those Kepler examined. This will help astronomers better understand the structure of solar systems outside of our Earth, and provide insights into how our own solar system formed.

Orbit: TESS will occupy a never-before-used orbit high above Earth. The elliptical orbit, called P/2, is exactly half of the moon's orbital period; this means that TESS will orbit Earth every 13.7 days. Its closest point to Earth (67,000 miles or 108,000 kilometers) is about triple the distance of geosynchronous orbit, where most communications satellites operate.

Q Source: <http://www.insightsonindia.com/2018/09/08/insights-daily-current-affairs-08-september-2018/>

5 Correct Answer : C

Answer Justification :

Learning: The eight extinctions that have been recorded recently has been the first in this decade of the 21st century.

Five of the eight likely extinctions occurred in South America, the result of deforestation. This bucks the trend of small-island birds going extinct due to invasive species or hunting.

As per Stuart Butchart, the chief scientist for BirdLife International, "Historically 90 percent of bird extinctions have been small populations on remote islands. Our evidence shows there is a growing wave of extinctions washing over the [South American] continent driven by habitat loss from unsustainable agriculture, drainage and logging."

The Spix's macaw (*Cyanopsitta spixii*) was classified as being extinct in the wild. The bird was featured in the 2011 animated film "Rio." That movie chronicled the story of two fictional macaws, one captive and one wild, breeding together in an effort to save the species (but in a family-friendly way).

BirdLife has recommended that the remaining birds — the glaucous macaw (*Anodorhynchus glaucus*), the Pernambuco pygmy owl (*Glaucidium mooreorum*), the New Caledonian lorikeet (*Charmosyna diadema*) and the Javan lapwing (*Vanellus macropterus*) — be reclassified as critically endangered (possibly extinct) as none of them has been seen since before 2001.

Q Source: <https://www.forbes.com/sites/grrlscientist/2018/09/07/forever-gone-eight-bird-species-confirmed-extinct-this-decade/#3b146d045926>

<https://www.mnn.com/earth-matters/animals/stories/8-bird-species-declared-first-be-extinct-decade>

6 Correct Answer : D

Answer Justification :

Justification: An important qualification of the President's office is that he should not hold any office of profit under the Union government or any state government or any local authority or any other public authority.

However, a sitting President or Vice-President of the Union, the Governor of any state and a minister of the Union or any state is not deemed to hold any office of profit and hence qualified as a presidential candidate. So, both A and R are wrong.

Learning: An office is called an office of profit if it carries some remuneration, financial advantage, benefit and other advantages.

- The Constitution of India provides for separation of powers between executive and legislature, where the executive are responsible for implementing key decisions, policies, law and utilize public money, whereas legislature provides the manner in which the executive exercises authority.
- The constitution lays down that legislators would be disqualified for being chosen as, and for being, a member of the legislature if they were to hold any office of profit under the government other than an office declared by the legislature by law not to disqualify its holder.
- The underlying idea was to obviate a conflict of interest between the duties of office and their legislative functions.

Q Source: Chapter 17 and 18: Indian Polity: M Laxmikanth