

**Q: Consider the following statement regarding Transiting Exoplanet Survey Satellite (TESS):**

1. It is finding planets ranging from small, rocky worlds to giant planets.
2. It uses the transit method to detect planets.
3. It is a the European Space Agency to discover exoplanets around nearby bright stars

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- Transiting Exoplanet Survey Satellite (TESS) is a NASA mission to discover exoplanets around nearby bright stars.
- It was launched on April 18, 2018, aboard a SpaceX Falcon 9 rocket out of Cape Canaveral.
- TESS circles Earth in a unique high Earth orbit of 12 to 15 days, which is inclined in a way that the telescope's sky view is largely free from obstructions by our bright planet and the Moon.
- The prime mission ended on July 4, 2020, and TESS is now on an extended mission.
- TESS is finding planets ranging from small, rocky worlds to giant planets, showcasing the diversity of planets in the galaxy.
- It uses the transit method to detect planets.
- It looks for periodic dips in stars' brightness as planets cross in front of them along our sightline.

**Q: Consider the following statement regarding Armed Forces Tribunal (AFT):**

1. The Tribunal cannot dismiss the appeal if the court martial findings are found to be justified.
2. Each Bench comprises of a Judicial Member and an Administrative Member.
3. The Judicial Members are retired High Court Judges and Administrative Members are retired Members of the Armed Forces who have held the rank of Major General.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: b

Explanation:

- Armed Forces Tribunal (AFT) is a military tribunal in India established in 2009 under the Armed Forces Tribunal Act, 2007.
- The Tribunal can also dismiss the appeal if the court martial findings are found to be justified.
- Any appeal by a person against a decision given by the tribunal can only be taken up in the Supreme Court.
- Each Bench comprises of a Judicial Member and an Administrative Member.
- The Judicial Members are retired High Court Judges, and Administrative Members are retired Members of the Armed Forces who have held the rank of Major General/ equivalent or above for a period of three years or more.
- Judge Advocate General (JAG), who has held the appointment for at least one year, are also entitled to be appointed as the Administrative Member.

**Q: Consider the following statement regarding MicroRNAs (miRNAs):**

1. These are a class of non-coding RNAs that play important roles in regulating gene expression.
2. Molecules of miRNA are found in cells and in the bloodstream.

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- MicroRNAs (miRNAs) are a class of non-coding RNAs that play important roles in regulating gene expression.
- Gene expression refers to whether a particular gene is making too much, too little or the normal amount of its protein at a particular time.
- Molecules of miRNA are found in cells and in the bloodstream.
- They are typically composed of approximately 21 to 24 nucleotides, making them much smaller than messenger RNAs (mRNAs), which carry instructions for protein synthesis. Their small size allows them to bind to specific target mRNAs.

**Q: Consider the following statement regarding Dadasaheb Phalke Award:**

1. It is India's highest award in the field of cinema.
2. The award was introduced by the Government of India to commemorate Dadasaheb Phalke's contribution to Indian cinema.
3. The first recipient of the award was actress Devika Rani.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: d

Explanation:

- Dadasaheb Phalke Award is India's highest award in the field of cinema.
- It is presented annually at the National Film Awards ceremony by the Directorate of Film Festivals, an organisation set up by the Ministry of Information and Broadcasting.
- The award comprises a Swarna Kamal (Golden Lotus) medallion, a shawl, and a cash prize of 10 lakh rupees.
- The award was introduced by the Government of India to commemorate Dadasaheb Phalke's contribution to Indian cinema, who is popularly known as and often regarded as "the father of Indian cinema".
- It was first presented in 1969. The first recipient of the award was actress Devika Rani, "the first lady of Indian cinema."

**Q: Consider the following statement regarding Chincholi Wildlife Sanctuary:**

1. It is located in Karnataka.
2. It is the first dry land Wildlife Sanctuary in South India.
3. The sanctuary has tropical rainforest in the core.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- Chincholi Wildlife Sanctuary is located around the Chandrampalli Dam in the Kalaburagi district of Karnataka.
- It was declared a sanctuary in 2011.
- It is the first dry land Wildlife Sanctuary in South India.

- This is the only area in the Hyderabad Karnataka Region with rich floristic diversity
- The Sanctuary has good dry deciduous and Moist deciduous forest in the core with Acacia and Teak plantations on the fringes.
- Apart from medicinal herbs and trees, species like Red Sanders and Sandalwood are found abundantly.