



Drishti IAS Presents...

PT

SPRINT 2023

SCIENCE & TECHNOLOGY

(March 2022 – March 2023)



Multiple
Choice
Questions

Drishti IAS, 641, Mukherjee Nagar,
Opp. Signature View Apartment,
New Delhi

Drishti IAS, 21
Pusa Road, Karol Bagh
New Delhi - 05

Drishti IAS, Tashkent Marg,
Civil Lines, Prayagraj,
Uttar Pradesh

Drishti IAS, Tonk Road,
Vasundhara Colony,
Jaipur, Rajasthan

e-mail: englishsupport@groupdrishti.com, Website: www.drishtias.com

Contact: Inquiry (English): 8010440440, Inquiry (Hindi): 8750187501

1. Consider the following statements regarding "Artificial Neural Network":

1. It is a vital subset of machine learning that helps computer scientists in their work on complex tasks.
2. It is designed to simulate the way the human brain analyzes and processes information.

Which of the statements given above is/are correct?

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

2. Which of the following statements regarding Corbevex is/are correct?

1. India's first indigenously developed Receptor Binding Domain (RBD) protein sub-unit vaccine.
2. It needs to be stored at below zero degrees Celsius.
3. It is based on recombinant protein sub-unit.

Select the correct answer using the code given below:

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

3. Which of the following statements is/are correct?

1. Greenland's iceberg snailfish are able to survive in the chilly waters of the Arctic due to antifreeze proteins in their blood.
2. Snailfish get their shine by converting blue wavelengths of sunlight into green, red or yellow light.

Select the correct answer using the code given below:

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

4. Which of the following statements is/are correct?

1. Geostationary satellite orbits are classified as Low Earth Orbits.
2. The orbital period of the satellite in this orbit is the same as the rotation of the earth around its axis.

Select the correct answer using the code given below:

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

5. Consider the following statements regarding Hydrogen Fuel Cells (HFC):

1. It converts Hydrogen into kinetic energy.
2. It only emits water vapor and warm air.
3. It takes hours to refill a hydrogen fuel cell vehicle.

Which of the statements given above is/are not correct?

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

6. Consider the following statements regarding Indian Energy Exchange:

1. It is a publicly listed company with National Stock Exchange (NSE) and Bombay Stock Exchange (BSE).
2. It is approved and regulated by Central Electricity Regulatory Commission (CERC).

Which of the above statements is/are correct?

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

7. Consider the following statements regarding "Tomato Flu":

1. There is no specific drug to cure Tomato Flu.
2. It is caused by intestinal viruses and is rare in adults.
3. The treatment for tomato flu is similar to the treatment of chikungunya.

Which of the statements given above is/are correct?

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

8. Consider the following statements regarding 'Nova':

1. A strong explosion occurs temporarily on the stellar surface.
2. An increase in brightness by hundreds to millions of times occurs followed by gradual darkening over weeks or months.
3. It occurs in a binary system consisting of a white dwarf and a main sequence star.

Which of the above statements is/are correct?

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

9. Which of the following statements is/are correct?

1. OTT platforms will be governed under the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021.
2. The rules establish a self-regulatory architecture with a Code of Ethics and three-tier grievance redressal mechanism.

Select the correct answer using the code given below:

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

10. Regarding the Cyber-attack, consider the following statements:

1. It is a malicious act that seeks to damage data, steal data, or disrupt digital life in general.
2. Malware, Trojan and Phishing are part of Cyber Attack.
3. There is a rise in cyber-attacks in Asia pacific region.

Which of the statements given above is/are correct?

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

11. Consider the following statements regarding India's first commercial Space Situational Awareness (SSA) Observatory:

1. It will be set up in the Garhwal region of Uttarakhand.
2. It will be able to monitor satellites and debris in orbits ranging from Low Earth Orbit (LEO) to Geosynchronous Earth Orbit (GEO).

Which of the above statements is/are **not** correct?

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

12. Consider the following statements regarding "Facial Recognition Technology (FRT)":

1. FRT is an algorithm-based technology.
2. Automated Facial Recognition System uses large database of photos to match and identify the person.
3. The captured face stored in a database cannot be integrated with any software.

Which of the statements given above is/are correct.

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

13. Consider the following statements regarding "Council of Scientific and Industrial Research (CSIR)":

1. It is the largest research and development (R&D) organisation in India.
2. The Prime Minister is the Ex-officio President of CSIR.

Which of the statements given above is/are correct?

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

14. Consider the following statements regarding "Liquid Nano Urea":

1. It was Indigenously introduced firstly by the Indian Farmers Fertiliser Cooperative Limited (IFFCO).
2. It can curtail the requirement of conventional urea by at least 50%.

Which of the statements given above is/are **not** correct?

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

15. With reference to Blockchain, consider the following statements:

1. It's a form of centralised computer network.
2. Estonia is the world's blockchain capital.
3. Blockchain is used in cryptocurrency systems.

Which of the statements given above is/are correct?

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

16. Consider the following statements regarding 'National Mission on Interdisciplinary Cyber-Physical Systems':

1. Ministry of Electronics, Information and Technology (MeitY) is the nodal ministry for its implementation.
2. The Mission aims at the establishment of 15 Technology Innovation Hubs (TIH), six Application Innovation Hubs (AIH) and four Technology Translation Research Parks (TTRP).
3. Its application includes Driverless cars that communicate securely with each other on smart roads.

Which of the statements given above is/are correct?

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

17. Regarding Electromagnetic Field Emissions (EMF), consider the following statements:

1. They are a combination of invisible electric and magnetic fields of force.
2. They are produced by the local build-up of electric charges in the atmosphere associated with thunderstorms.
3. EMF emissions from Mobile towers doesn't have any adverse impact on Environment.

Which of the statements given above is/are correct?

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



18. Consider the following statements regarding Langya Virus:

1. It is a zoonotic virus and cannot be transmitted from animals to humans.
2. It is part of the genus Henipavirus, which has a single-stranded RNA genome with a negative orientation.

Which of the statements given above is/are correct?

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

19. Consider the following statements in context of chronic fatigue syndrome:

1. It is a serious and debilitating disease, affects the nervous system and energy production in the body.
2. It is also known as “Myalgic Encephalomyelitis”.
3. It only affects children up to the age of five years.

Which of the statements given above is/are **not** correct?

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

20. Consider the following statements regarding the Small Satellite Launch Vehicle (SSLV):

3. It has two solid propulsion stages and a liquid propulsion based velocity-trimming module.
4. It can accommodate only one satellite.
5. It can be assembled both vertically and horizontally.

Which of the above statements is/are correct?

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

21. Which of the following statements is/are correct?

1. *Trametes maxima* IIPLC-32, is a bacteria which has the potential to cause microbial degradation of pyrene.
2. Pyrene, possessing four benzene rings, belongs to the highly toxic class of Polycyclic aromatic hydrocarbons (PAHs)

Select the correct answer using the code given below:

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

22. Consider the following statements regarding “African Swine Fever”:

1. It was first detected in Africa in the 1920s.
2. It is a viral disease and can spread from animals to humans also.
3. There is no cure available for it.

Which of the statements given above is/are **not** correct?

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

23. Which of the following statements is/are correct?

1. AlphaFold is a Deep Neural Network based protein structure prediction tool.
2. RoseTTaFold tool can predict the structure of protein complexes more accurately than AlphaFold.

Select the correct answer using the code given below:

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

24. Consider the following statements regarding ‘Salt Industry of India’:

1. The Vacuum Evaporation Method involves evaporation of salt brine by steam heat in large commercial evaporators, called vacuum pans.
2. India is the second largest salt producing country in the world after China.

Which of the statements given above is/are correct?

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

25. Consider the following statements regarding “Rabies”:

1. The germs which cause rabies live in the saliva of the sick (rabid) animal.
2. In up to 99% of cases, domestic dogs are responsible for rabies virus transmission to humans.

Which of the above statements is/are correct?

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

26. Consider the following statements regarding “Gaganyaan”:

1. The Gaganyaan system module, called the Orbital Module will have three Indian astronauts, including a woman.
2. It will be launched by GSLV Mk III.
3. It will circle Earth at a high-earth-orbit.

Which of the statements given above is/are correct?

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

