

DAY #56 of Mission CDSE of Vision Defence Institute

Current Affairs January 2020

1. 11-day long “Dhanu Jatra” is celebrated in which state of India?

- a) West Bengal
- b) Orissa
- c) Andhra Pradesh
- d) Tamil Nadu

2. Which state government has planned to deliver sand at doorsteps?

- a) Tamil Nadu
- b) Uttar Pradesh
- c) New Delhi
- d) Andhra Pradesh

3. China has started a joint naval drill with which among the following countries in the Gulf of Oman?

- a) Iran and India
- b) Iran and Oman
- c) Iran and Russia
- d) Oman and India

4. What is the theme of 28th edition of annual World Book Fair 2020?

- a) Suryodaya: Emerging voices from North East India
- b) Manushi – Books Written on and by Women
- c) Environmental issues
- d) Gandhi: The Writers' Writer

5. The Union Home Minister Amit Shah has released a book “Karmayoddha Granth” on the life of _____.

- a) Narendra Modi
- b) Arun Jaitley
- c) Yogi Adityanath
- d) Mohan Bhagwat

6. Who won the 55th Jnanpith Award 2019?

- a) Itigi Eranna
- b) Akkitham Achuthan Namboodri
- c) P.T. Narasimhachar
- d) Jayant Kaikini

7. India’s first maritime museum coming up at which one of the following?

- a) Marina, Chennai
- b) Arossim, Goa
- c) Juhu, Mumbai
- d) Lothal, Gujarat

8. Who received the 100th Nobel Peace Prize?

- a) Abiy Ahmed
- b) Greta Thunberg
- c) Isaias Afwerki
- d) Nadia Murad

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9. UNICEF has announced Danny Kaye Humanitarian award 2019, who among the following is the winner of this award?

- a) Sonam Kapoor
- b) Diane von Furstenberg
- c) Priyanka Chopra
- d) Hima Das

10. Which State Government has approved the creation of fast-track courts in the state to curb crimes against women and children that is also known as "DISHA ACT"?

- a) Andhra Pradesh
- b) Telangana
- c) Karnataka
- d) Kerala

VISION DEFENCE

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Physics

1. A planet in a distant solar system is 10 times more massive than the earth and its radius is 10 times smaller. Given that the escape velocity from the earth is 11 kms⁻¹, the escape velocity from the surface of the planet would be

- a) 1.1 kms⁻¹
- b) 11 kms⁻¹
- c) 110 kms⁻¹
- d) 0.11 kms⁻¹

2. The dimension of magnetic field in M, L, T and C (Coulomb) is given as

- a) MLT⁻¹C⁻¹
- b) MT²C⁻²
- c) MT⁻¹C⁻¹
- d) MT⁻²C⁻¹

3. Consider a uniform square plate of side 'a' and mass 'm'. The moment of inertia of this plate about an axis perpendicular to its plane and passing through one of its corners is

- a) $\frac{4}{6} ma^2$
- b) $\frac{3}{4} ma^2$
- c) $\frac{2}{3} ma^2$
- d) $\frac{1}{5} ma^2$

4. A body of mass $m = 3.513$ kg is moving along the x-axis with a speed of 5.00 ms⁻¹. The magnitude of its momentum is recorded as

- a) 17.6 kg ms⁻¹
- b) 17.565 kg ms⁻¹
- c) 17.56 kg ms⁻¹
- d) 17.57 kg ms⁻¹

5. A block of mass 0.50 kg is moving with a speed of 2.00 m/s on a smooth surface. It strikes another mass of 1.00 kg and then they move together as a single body. The energy loss during the collision is

- a) 0.16 J
- b) 1.00 J
- c) 0.67 J
- d) 0.34 J

6. An experiment is performed to find the refractive index of glass using a travelling microscope. In this experiment distance are measured by

- a) a vernier scale provided on the microscope
- b) a standard laboratory scale
- c) a meter scale provided on the microscope
- d) a screw gauge provided on the microscope

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7. Two full turns of the circular scale of a screw gauge cover a distance of 1 mm on its main scale. The total number of divisions on the circular scale is 50. Further, it is found that the screw gauge has a zero error of -0.03 mm while measuring the diameter of a thin wire, a student notes the main scale reading of 3 mm and the number of circular scale divisions in line with the main scale as 35. The diameter of the wire is

- a) 3.32 mm
- b) 3.73 mm
- c) 3.67 mm
- d) 3.38 mm

8. A bomb of mass 16 kg at rest explodes into two pieces of masses of 4 kg and 12 kg. The velocity of the 12 kg mass is 4 ms^{-1} . The kinetic energy of the other mass is

- a) 96 J
- b) 144 J
- c) 288 J
- d) 192 J

9. A particle of mass 100 g is thrown vertically upwards with a speed of 5 m/s. the work done by the force of gravity during the time the particle goes up is

- a) 0.5 J
- b) -0.5 J
- c) -1.25 J
- d) 1.25 J

10. A electric dipole is placed at an angle of 30° to a non-uniform electric field. The dipole will experience

- a) a torque only
- b) a translational force only in the direction of the field
- c) a translational force only in a direction normal to the direction of the field
- d) a torque as well as a translational force