

[Time: 3 Hours]

- All questions are compulsory.
- Marks are mentioned on the right side of each question.

Group (A)

(1*20=20)

Q.1 Choose the most suitable answer the following options.

- i. Which part in auto piloting drones is act like its brain?
- ★ Microcontroller (b) Sensor (c) Receiver (d) Transmitter
- ii. Which type of drone have weight more than 150kg?
- (a) Nano (b) Micro (c) Medium ★ Large
- iii. Which drone has maximum weight upto 250 gm?
- ★ Nano (a) Micro (c) small (d) Medium
- iv. On Which principle drone's operation is depends?
- (a) Ohms Law (b) Kirchoff Law ★ Newton's Law - 3rd Law (d) Archimedes Law
- v. Elevator in an aircraft gives rise to motion in which axis?
- (a) Roll axis (b) Yaw axis ★ Pitch axis (d) Speed axis
- vi. Which is the strongest one directional antenna used in UAV?
- (a) Yagi ★ Omni directional (c) Disc (d) Satellite
- vii. What generates lift in an aircraft?
- ★ Main wing (b) Battery (c) Motor (d) ESCR
- viii. Who sets new rules and regulation for drones?
- ★ DGCA (b) AAI (c) DRDO (d) CAR
- ix. Upto which height a nano drone can be fly from ground level?
- ★ Upto 50 ft (b) Upto 200ft (c) Upto 400ft (d) Upto 1500ft
- x. What is used to analysis surrounding atmosphere?
- (a) Battery (b) Transmitter ★ Sensor (d) Antenna

- xi. Which Avionics is used for flight controller of flying drone?
 (a) Eses (b) Rx (c) TX **★** Fc
- xii. Which sensor is used in fly drone for speed up?
★ Air speed sensor (b) Thermo couple (c) Blow meter (d) Altimeter
- xiii. Which device use to provide geographic co- ordination in drone?
★ GPS module (b) Rx (c) Tx (d) Antenna
- xiv. Which device measures pressure and its change during flight?
★ Barometer (b) Thermometer (c) Sensor (d) Microcontroller
- xv. Which process the signal sent by GPS antenna?
★ GPS Receiver (b) Transponder (c) Flight recorder (d) Flight controller
- xvi. How Many rotors work in Hexa- copter?
 (a) 3 rotors (b) 4 rotors (c) 5 rotors **★** 6 rotors
- xvii. What is purpose to use propellers in flying drones?
★ Generate thrust (b) Generate gravity (c) Very Speed (d) Generate power
- xviii. What control pitch axis in an aircraft?
★ Elevator (b) Rudder (c) Roll (d) Ailerons
- xix. How many parts holds together with frame of air craft in drone?
 (a) Motor only (b) Propeller only (c) Battery only **★** All of these
- xx. How many motors are used in flying drone?
 (a) One (b) Two (c) Three **★** Four

Group (B)

- ~~Q.2~~ What is a drone? 4
- ~~Q.3~~ What are some common uses for drones? 4
- ~~Q.4~~ How are drones powered? 4
- ~~Q.5~~ What are the advantages of using drones? 4
- ~~Q.6~~ What are the disadvantages of using drones? 4

Group (C)

- ~~Q.7~~ How do drones navigate? 6
- ~~Q.8~~ What is a drone's range? 6
- ~~Q.9~~ What is the maximum altitude that a drone can reach? 6
- ~~Q.10~~ How do drones avoid collisions with other objects? 6
- ~~Q.11~~ What are some safety concerns associated with drone use? 6

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