

CBCS SCHEME

072F01

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Question Paper Version : A

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 Drone Pilot Training

Time: 1 hr.]

[Max. Marks: 50

INSTRUCTIONS TO THE CANDIDATES

1. Answer all the **fifty** questions, each question carries one mark.
2. Use only **Black ball point pen** for writing / darkening the circles.
3. **For each question, after selecting your answer, darken the appropriate circle corresponding to the same question number on the OMR sheet.**
4. Darkening two circles for the same question makes the answer invalid.
5. **Damaging/overwriting, using whiteners on the OMR sheets are strictly prohibited.**

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1. The draft of the Drone rules was proposed in the year
a) 2020 b) 2021 c) 2022 d) 2019
 2. The Drone Rules 2021 are applicable to
a) All persons owning or possessing on unmanned aircraft system in India
b) All unmanned aircraft system that are registered in India
c) All unmanned aircraft system that are being operated in and over India
d) All of these
 3. RPTO stands for
a) Regional Pilot Training Organization b) Remote Pilot Training Organization
c) Recessive Pilot Training Organization d) Race Pilot Training Organization
 4. The present Director General of civil Aviation is
a) Vikran Dev Dutt b) Sen Gupta c) Arun Kumar d) Sivarman
 5. _____ is the online platform hosted by DGCA for various activities related to UAS
a) Drone sky b) Champions c) Digital sky d) Yukti
 6. There are the various zones of Airspace
a) Green zone b) Yellow zone c) Red zone d) All of these
 7. The airspace of defined dimension above the land areas of India in the airspace map safe to fly drones to the _____ zone.
a) Red b) Yellow c) Green d) None of these

8. The unmanned aircraft system are categorised as
 - a) Aeroplane , Rotorcraft , Hybrid UAS
 - b) Glider , Sailern , Airplanes
 - c) UAV, MAV , ULAV
 - d) Sailern , Balloons , Gliderin
9. Following is the classification of UAS
 - a) Nano UAS
 - b) Micro UAS
 - c) Small UAS
 - d) All of these
10. _____ is the Unmanned Aircraft system weighing less than or equal to 250 gms.
 - a) Nano
 - b) Micro
 - c) Medium
 - d) Large
11. UAS weighing more than 150 kgs.
 - a) Small
 - b) Medium
 - c) Micro
 - d) Large
12. Any person, who intends to obtain a type certification , shall make an application in
 - a) Form D2
 - b) Form D1
 - c) Form D3
 - d) Form D4
13. The safety features to be installed on an Unmanned Aircraft system by persons owning it
 - a) 'No permission – No takeoff' hardware and firmware
 - b) Real time tracking beam
 - c) Geo – fencing capability
 - d) All of these
14. No type certificate is required for operating the UAS.
 - a) Nano UAS
 - b) Micro UAS
 - c) Medium UAS
 - d) Small UAS
15. Application for Registration or Deregistration of UAS
 - a) Form D1
 - b) Form D2
 - c) Form D3
 - d) Form D4
16. Eligibility to obtain a remote pilot license by an individual
 - a) not less than 18 and not more than 65 years of age
 - b) not less than 20 and not more than 60 years of age
 - c) not less than 22 and not more than 50 years of age
 - d) None of these
17. Validity of a remote pilot license is for a period of
 - a) 5 years
 - b) 10 years
 - c) 15 years
 - d) 20 years
18. Amendment to Drone rules 2021 was done in the year
 - a) 2022
 - b) 2023
 - c) 2024
 - d) Not amended
19. Major forces acting on a drone
 - a) Weight, Lift , Drag , Thrust
 - b) Weight and Lift
 - c) Drag and Thrust
 - d) Lift and Thrust
20. _____ , _____ and _____ of the propeller blade decides the amount of lift force
 - a) Speed , Side and Shape
 - b) Length , Width and diameter
 - c) Shape , Profile and length
 - d) Profile, length and shape
21. As weight of the drone increases, the flight time _____
 - a) increases
 - b) decreases
 - c) no change
 - d) remains same

22. A drone's weight affect its _____ and _____
 a) Power consumption and flight efficiency
 b) Lift and thrust
 c) Battery capacity and flight time
 d) Range and endurance
23. The spinning of the propellers creates a forward force known as _____.
 a) Lift b) Drag c) Thrust d) Weight
24. The UAV get its current position from _____.
 a) GPS Receiver b) Flight control system
 c) Electronic speed controller d) Receiver
25. A _____ measures the rate of rotation and helps keep the drone balanced.
 a) Remote control b) Flight control c) Gyroscope d) GPS
26. _____ allows the drone to know its heading and direction in space.
 a) Barometer b) Compass c) IMU d) Transmitter
27. IMU stands for
 a) India Measurement Unit b) Inertial Measurement Unit
 c) Inner Measurement Unit d) Inforce Measurement Unit
28. LOS stands for
 a) Line of sight b) Live of sight c) Lift of sight d) Length of sight
29. A navigation technique known as SLAM stands for
 a) Simultaneous Location and Mapping b) Simultaneous Lift and Mapping
 c) Simultaneous Length and Mapping d) None of these
30. Almost all UAV structures are made from
 a) Mild steel b) Plastic
 c) Carbon fiber composites d) Aluminum
31. VTOL stands for
 a) Vertical take Off and Landing b) Very long take Off and Landing
 c) Vehicle take Off and Landing d) None of these
32. The control of a fixed using UAV is comprised of three maneuvers
 a) Left , Right and Front b) Roll , Pitch and Yaw
 c) Bank , Yaw and Roll d) Bank , Anhedral and Dihedral
33. MALE stands for
 a) Medium Altitude and Long Endurance b) Gender Based UAV
 c) Medium Altitude and Length Endurance d) Medium Altitude and Lift Endurance
34. Fixed wing UAVs have the following advantages over other drones
 a) Excellent stability b) Power less recovery
 c) Longer flight time d) All of these

35. Meteorodrones are unmanned serial vehicles that record _____.
a) Weather conditions b) Crop survey
c) Meteorological forecasting d) Wind conditions
36. If an operator notices significant signs of damage through a visual or performance check, the drone should be sent for _____.
a) Predictive maintenance b) Corrective maintenance
c) Repair d) Overhaul
37. _____ maintenance detects component failures in time and reduces flight risks.
a) Corrective b) Predictive c) Regular d) Line
38. Components of UAS does not consists of
a) UAV b) Ground-based controller
c) Air strip for landing
d) A communication system between UAV and controller.
39. Civil Aviation Requirements (CAR) is published by
a) Direct General of Civil Aviation b) Airport Authority of India
c) India Airforce d) Central Public Works Department
40. Which of the following drone is mostly used by professionals and hobbyists?
a) Multirotor Drones b) Fixed Wing Drones
c) Single Rotor Drones d) Hybrid VTDL
41. Which of the following is not an application of Drones?
a) Photogrammetry b) Land survey
c) Population survey d) Under water survey
42. A process by which information is extracted from photographs to create accurate three dimensional maps is called as
a) Quantity survey b) Photogrammetry c) Under water survey d) Monitoring
43. Drones used in land survey produces :
a) Orthomosaics maps b) Contour lines
c) 2d Drawing d) Area charts
44. What is the full form of ROV?
a) Remotely Ordered Vehicle b) Randomly Operated Vehicle
c) Remotely Operated Vehicle d) Range Operated Vehicle
45. Which one of the following is not a primary component of Drone?
a) Electronic speed controller b) BLDC Motor
c) Transmitter d) Receiver
46. What is the full form of RF - Id?
a) Radio Frequency Identification b) Radio fire definition
c) Rare Frequency Identification d) Radio Frequency International

47. Which is the strongest one directional antenna used in UAV?
a) Yagi b) Omnidirectional c) Disc d) Satellite
48. What is abbreviated for Light Detection and Ranging?
a) LiDAR b) LDR c) LDER d) Ldr
49. Which materials are used in flying drone batteries?
a) Lithium b) Potassium c) Sulphuric d) Electrolytic
50. What is main safety tips to dispose a drone batteries?
a) Trash into dustbin b) Cut leads twist and wrap in paper
c) Left in drone d) Send to recycling center
