

IRELAND COMPLETE STUDY MATERIALS AND CORRECT QUESTIONS AND ANSWERS FOR THE A2 EXAM

*Includes all study materials and a sample list of original exam questions
with correct answers – exactly like in the official test.*

***If you want to prepare optimally for the A2 drone exam in
Ireland, get the complete collection with 150 exam questions –
including detailed explanations of why these specific answers
are correct.***

Now available at

<https://dronellicence.ie/product/a2-drone-license-exam-luxembourg-official-questions-answers-with-full-study-materials/>

Contents

A1/A3 Open Category	4
Provisions of law	5
Provisions of law and institutions which a UAV remote pilot must know.....	5
Flight categories – what are they for and how do they relate to me?.....	5
Drone classes and subcategories in the OPEN CATEGORY.....	7
What to do when your drone does not have the C designation? Are you allowed to fly it?.....	9
Geographical zones – basic information	10
Geographical zones – types and rules.....	12
Controlled and uncontrolled airspace	14
Before the first flight.....	15
UAS operator – responsibilities, certificates, formalities.....	15
UAS operator – responsibilities, certificates, formalities 2.....	15
Third party liability insurance – do I need it?	17

GDPR – do I need to care?	18
Remote pilot preparation prior to the flight	18
UAV instruction manual – do not ignore it!.....	19
Mission planning.....	20
Want to fly? Read the weather forecast!	21
Check your UAV before the flight!	22
Let's fly!	24
Training and test flights.....	24
Basic principles of flying drones safely in the Open category	24
Automatic modes	27
Remote pilot checks and penalties	28
After the flight – tips	29
Photo and video.....	29
A1/A3 Course Conclusion.....	31
Summary	31
Glossary of UAV-related terms.....	32
A2 Category	36
Meteorology	37
The effect of weather on UAV operations	37
Wind.....	37
Temperature.....	39
Visibility	40
Air density.....	41
Obtaining weather forecasts	43
UAV performance in flight.....	44
Types of UAV designs	44
Mass and balance and centre of gravity.....	45
Securing the cargo	47
Electricity supply sources	47
Information on electricity in a nutshell	48
LiPo battery structure	51

Combining direct current sources	52
Charging LiPo batteries	54
LiPo batteries – inspection principles.....	55
Nickel-cadmium (NiCd) batteries.....	57
Nickel-metal hydride (NiMH) batteries.....	58
Technical and operational mitigations for ground risk.....	59
Low speed mode.....	59
Assessment of the distance to persons and the 1:1 rule	59
Emergency procedures (Fail Safe), as well as Geofence and Geocage	60
A2 Course Conclusion	62
Summary	62
Questions and answers for A2 Exam	63
The End	100

Sample chapter

Want to fly? Read the weather forecast!

Check the weather forecast in two independent sources, at three days and one before the flight and on the day of the flight. The final decision regarding the start of your UAV should be made immediately prior to the air operation, based on the weather situation at the location of the planned flight.

Things that you need to take into account:



Wind speed and direction



Temperature



KP index



Probability of precipitation / fog



Possibility of thunderstorms with lightning

Remember that flying with a deactivated GPS/GNSS system requires higher piloting skills. You can acquire these by training under the supervision of a professional instructor.

Never fully trust your equipment – it is just a machine and can always fail.



Remember!

If a storm is forecast – postpone your flight to a different date if possible.

Check your UAV before the flight!

Prior to flying you must absolutely check the following:



Visibility of the operator's number on your drone.



Charging the control device and additional devices (tablet, phone).



Charging, temperature, and condition of the drone's batteries.



Propeller attachment and their proper rotation.



Condition of the airframe - no cracks, dents.



Engine condition - no backlash, free rotation, in line with the engine's characteristics



Fuselage condition - completeness, lack of damage, screw tightening.



Fuselage condition - completeness, lack of damage, screw tightening.



Operation of the green position light - for flights before dawn and after dusk.



Quality of remote control link - ensure no interference at the takeoff location.



Compass calibration - wait for the drone to position itself and check for any interference.



Video transmission quality - especially during FPV flights.

Fail-safe function programming - system behavior in case of signal loss.

Go Home function programming - automatic return to the takeoff location.

A2 exam questions and answers

1. What is the nominal voltage of a LiPol battery?

- a. 4.2 V
- b. 3.7 V**
- c. 5 V
- d. 3.2 V

Explanation: The nominal voltage of a single lithium-polymer (LiPol) battery cell is typically 3.7 V. This is the voltage at which the battery normally operates and is also often listed as its standard working voltage. The value 4.2 V is usually the maximum charging voltage for a LiPol battery.

2. What is the min distance from an uninvolved person in A2 (UA without a C label)?

- a. 30 m
- b. 40 m
- c. 50 m**
- d. 60 m

Explanation: For operating a drone without a C-class label in category A2, a minimum distance of 50 meters from uninvolved persons is usually set. This rule may vary depending on the specific legislation of the country. For drones with a label, it is 30 meters, and 50 meters without a label.

3. What effect does temperature have on a battery?

- a. The higher the temperature, the higher the performance
- b. The higher the temperature, the lower the performance, shorter flight time**
- c. Temperature has no effect on the battery
- d. Batteries work best in freezing environments

Explanation: Batteries are chemical devices, and their performance varies with temperature. Higher temperatures can accelerate chemical reactions inside the battery, which can lead to an increased discharge rate and reduced total flight time. Extreme temperatures, whether high or low, can also reduce battery life.

4. Which of the following frequency bands can also be used for FPV (First Person View) transmission?
- a. 400 MHz
 - b. 5.8 GHz
 - c. 9 GHz
 - d. 11 GHz

Explanation: The 5.8 GHz frequency band is often used for FPV (First Person View) transmission in unmanned aircraft (UAVs). This band provides sufficient bandwidth for real-time video and control transmission and is commonly used by FPV pilots to view images from the UAV camera in real-time during flight.

5. What does the letter "P" on a battery pack indicate:
- a. Maximum charging current coefficient.
 - b. Series connection of the battery/cells.
 - c. Higher performance class.
 - d. Parallel connection of the battery/cells.

Explanation: The letter "P" on a battery pack indicates "Parallel connection of the battery/cells". This means that the cells in the battery are connected in parallel, which serves to increase the battery's capacity while maintaining the same voltage.

If you want to prepare optimally for the A2 drone exam in Ireland, get the complete collection with 150 exam questions – including detailed explanations of why these specific answers are correct.

Now available at

<https://dronellicence.ie/product/a2-drone-license-exam-luxembourg-official-questions-answers-with-full-study-materials/>