THE BRITISH GLIDING ASSOCIATION

BRONZE CERTIFICATE CONFUSER.

ISSUED JANUARY 1998.

DO NOT WRITE ON THIS BOOKLET.

ANSWERS

NAVIGATION PART 2 REQUIRES YOU TO BE IN POSSESSION OF A MARKER PEN, RULER AND PROTRACTOR, AND ONE OF THE FOLLOWING CURRENT 1:500 000 SCALE ICAO CHARTS

SOUTHERN ENGLAND AND WALES.
NORTHERN ENGLAND AND IRELAND.
SCOTLAND, SHETLAND AND ORKNEY.

DO NOT WRITE ON THIS BOOKLET.

AIR LAW AND BGA OPERATIONAL REGULATIONS.

QUESTION 1. What are the minimum requirements for flying in cloud in gliders?

A. The occupants must wear a serviceable parachute and have been instructed in its use.
B. The pilot must have received instruction in the use of blind flying instruments.
C. Before entering cloud, the pilot must transmit position and height (QNH) on 130.4 MHZ.
D. All the above.

QUESTION 2. What are the restrictions imposed on gliders flying within a MATZ.
(Military Air Traffic Zone)?

A. No entry during the hours eight AM to five PM.
B. No entry while the MATZ is active.
C. None, so long as the ATZ is not penetrated.
D. None.

QUESTION 3. You are approaching a strange airfield and receive red flashes from the ground, what should be your actions?

A. Give way to other aircraft and continue circling.
B. Land immediately.
C. Do not land as the airfield is not available for landing.
D. Move clear of the landing area.

QUESTION 4. Under what circumstances is a weak link not required in the winch / auto tow cable?

A. The launch is a hill top site where the conditions are likely to be rough and break the weak link on a regular basis.
B. The proven breaking strain of the launch cable is lower than that of the weak link strength required by the glider manufacturer.
C. The tow car is of low power.
D. The glider is a heavy two seater with a history of breaking weak links.

QUESTION 5. What are your actions if you suspect any defect or damage to a glider?

A. Report it to the duty pilot before the next flight.
B. Report it to the duty instructor before the next flight.

C. Note the defect or damage in the DI book before the next flight.
D. Ground the glider until an inspector can check for defects or damage.

QUESTION 6. What are the VMC rules when flying in class D airspace below 3000ft AMSL at 140 kts or less?

A. 1500 ft horizontally, 1000 ft vertically, clear of cloud and in a flight visibility of more than 8 Km.
B. 1500m horizontally, 1000 ft vertically, clear of cloud and in a flight visibility of more than 8 Km.
C. 1000m horizontally, 1500 ft vertically, clear of cloud and in a flight visibility of more than 8 Km.
D. Clear of cloud and in sight of the surface with an in flight visibility of more than 5 Km.

QUESTION 7. When aerotowing, the tug rocks its wings laterally. What does this mean?

A. Release, you're at 2000 ft.
B. Release immediately.
C. Your air brakes are open.
D. The tug can't release.

QUESTION 8. When two aircraft are approaching head on, each shall alter its course in which direction?

A. To the left.
B. Only the first to see the other need take avoiding action to the right.
C. Only one alters course to the right to save any confusion.
D. To the right.

QUESTION 9. When two aircraft are converging at approximately the same height, who has the right of way?

A. The aircraft which has the other on its right has right of way.
B. The aircraft on the left.
C. Neither. Both must take avoiding action.
D. The aircraft which has the other on its right shall give way.

QUESTION 10.Who has command of a tug / glider combination?

A. The tug pilot.
B. The glider pilot.
C. Neither, as there must be a captain of each aircraft.
D. The most senior of the two pilots.

QUESTION 11.A glider shall not fly over any congested area below a height which would enable it to land clear of the area, or below 1500ft above the highest fixed object within 2000ft., which ever is the higher. Nor shall it fly over or within 3000ft of any open air assembly of more than 1000 persons (without specific CAA permission). When is there an exemption to the 1500 foot rule?

A. Never, the rule is rigid and must be adhered to at all times.
B. During normal take-off and landing and for life saving.
C. Only when excellent soaring conditions exist.
D. Only during a field landing.

QUESTION 12.Which of the following statements is most correct?

A. Gliders shall give way to airships and balloons.
B. Gliders shall give way to balloons.
C. Balloons shall give way to gliders.
D. Gliders shall give way to aerotow combinations only.

QUESTION 13.Above what height should oxygen equipment be carried and what height is recommended for its use?

A. 10,000 ft amsl and use above 12,000 ft amsl.
B 12,000 ft amsl and use above 10,000 ft amsl.
C. 10,000 ft amsl and use above 10,000 ft amsl.
D. 12,000 ft amsl and use above 12,000 ft amsl.

QUESTION 14.What must all glider pilots carry on flights over 5 nautical miles from their gliding site?

A. A low level navigation chart.
B. Map(s) marked clearly with the controlled and regulated airspace.
C. A flight plan.
D. A serviceable parachute.

QUESTION 15.Any accident resulting in death, serious injury or substantial damage to an aircraft must be reported to whom?

A. The BGA within 24 hours.
B. The Department of Transport AAIB.
C. The Police.
D. The Police and the Department of Transport AAIB.

QUESTION 16.What is the maximum launch height allowed by the winch method without written permission from the CAA?

A. There is no limit.
B. 2000 ft.
C. 60 metres.
D. 2000 ft, but up to 3000 ft at a few notified sites.

QUESTION 17.A glider is defined as being in flight during what period?

A. From when it leaves the ground until it touches down again.
B. From the signal 'take up slack' until it comes to rest after landing.
C. From when it first moves to take-off until it comes to rest after landing.
D. From the signal 'all out' until it touches down again.

QUESTION 18.A continuous green light to an aircraft in flight means what?

A. Land immediately.
B. You may land.
C. Land when safe to do so.
D. Do not land.

QUESTION 19.Which of the following is not recommended for flight?

A. Rain on the wings when the air temperature is close to freezing.
B. Frost on the wings.
C. Snow on the wings.
D. All of the above.

QUESTION 20.What are the dimensions of an air traffic zone at an airfield where the longest runway is greater than 1850 metres?

A. 2000 feet above the airfield and 5 miles in diameter centred on the mid point of the longest runway.
B. 2500 feet above the airfield and 5 miles in diameter centred on the mid point of the longest runway.
C. 2000 feet above the airfield and 4 miles in diameter centred on the mid point of the longest runway.
D. 2500 feet above the airfield and 4 miles in diameter centred on the mid point of the longest runway.

QUESTION 21.An area on a 1:500,000 scale ICAO chart is annotated as being a Restricted area. What does this mean with regards to a glider in flight?

A. There is little relevance as the restrictions can not be complied with by a glider.
B. Flight within the published dimensions of the area must comply with the specified restrictions.
C. There shall be no thermalling within the restricted area.
D. Flight is restricted due to the density of traffic within the area.

QUESTION 22.When landing close behind other aircraft, and in particular power aircraft, what should be your actions?

A. Over fly them and land long.
B. Land clear to their left.
C. You can land on either side.
D. Land clear to their right.

QUESTION 23.Whilst approaching an airfield you notice a red flare fired from the control tower. What should your actions be?

A. Keep a good look out as there must be another aircraft near by.
B. Do not land, wait for permission.
C. Remain clear of the ATZ.
D. Continue with the circuit and watch for further instructions.

QUESTION 24.What are the signal requirements from a glider pilot who is unable to release from the aerotow?

A. Fly out to the left and rock his wings.
B. Fly out to the right and rock his wings.
C. Try to break the rope.
D. Call on the radio and inform the tug pilot of the problem.

QUESTION 25.If a solo glider pilot does not hold a CAA or equivalent medical or a current driving licence, what are the 'declaration of health' requirements?

A. Before first flying solo and on 50th, 60th and 65th birthdays.
B. Before first flying solo and every 10 years there after.
C. Before first flying solo and every 5 years there after.
D. Before first flying solo.

QUESTION 26.What does a white dumbbell displayed in the signal square signify?

A. Both gliders and powered aircraft are operating from the airfield.
B. Movements of aircraft on the ground are confined to paved surfaces.
C. Winch launching and aerotows are in progress at the same time.
D. Paved areas are only available for powered aircraft. Gliders must land on the grass.

QUESTION 27.Which statement is incorrect? You shall not fly -

A. Over or within 3000 ft of any open air assembly of more than 1000 people.
B. Below a height of 1500 ft above the highest fixed obstacle within 2000 ft.
C. Below a height of 2000 ft above any congested area of a city, town or settlement.
D. Below a height which would enable it to land clear of the area.

QUESTION 28.Your cross country route takes a line through East Midlands CTA. What must be your actions during the flight?

A. Maintain VMC whilst in the CTA and keep a good look out.
B. Cross at the lowest possible level to avoid conflict with other traffic.
C. Call the ATC unit to inform them of your presence. You must hold a CAA RT license.
D. Cross at right angles, maintaining VMC.

QUESTION 29.What is the tug pilot signalling when you see the rudder waggling whilst on tow?

A. Check your air brakes are not open or drag chute deployed and close or jettison as necessary.
B. You are to release immediately.
C. Wait until the tug tows you overhead the airfield and releases his end of the rope.
D. Expect the tug to slow down and continue at a slower speed.

QUESTION 30.Other than persons by parachute in an emergency, which is most correct statement with reference to items permitted to be dropped from a glider in flight?

A. Ballast in the form of water only.
B. Tow ropes at an approved airfield.
C. Ballast in the form of fine sand only.
D. Ballast in the form of fine sand or water.

QUESTION 31.What are the VMC minima required for gliders crossing airways?

A. Gliders are not allowed to cross airways at all except by local agreement.
B. 1000m horizontally, 1500ft vertically and 8km visibility.
C. 1500m horizontally, 1000ft vertically and 5km visibility.
D. 1500m horizontally, 1000ft vertically and 8km visibility.

QUESTION 32.An area on a 1:500,000 scale ICAO chart is annotated as being a Prohibited area. What does this mean with regards to gliders in flight?

A. There is little relevance as the area is only prohibited to powered aircraft.
B. Flight within the published dimensions of the area is prohibited.
C. Landing within the area is prohibited.
D. Flight is prohibited directly over head the area.

QUESTION 33.What are the requirements to fly a newly rigged club aircraft?

A. Any pilot with the type endorsement in their log book.
B. You must be an instructor authorised by the CFI or deputy for that purpose.
C. Any instructor who is self authorising may carry out the task.
D. You must be authorised by the CFI or deputy for that purpose.

QUESTION 34.What are the hours of day light (determined on the ground) as defined for flying purposes?

A. Street lights ‘off ’ to street lights ‘on’.
B. 30 minutes before sunrise until 30 minutes after sunset.
C. 30 minutes after sunrise until 30 minutes before sunset.
D. Sunrise until sunset.

QUESTION 35.What are the requirements for keeping an accurate and up to date personal flying log book?

A. All pilots up to silver C and all instructors to prove their renewal requirements have been met.
B. All pilots regardless of hours and qualifications.
C. There are no requirements.
D. All pilots flying club owned aircraft to prove their currency.

QUESTION 36.Whilst hill soaring which of the following statements is always true?

A. A glider wishing to overtake another should pass on its left side.
B. A glider wishing to overtake another should pass between it and the hill.
C. A glider wishing to overtake another should pass on its right side.
D. A glider wishing to overtake another should pass beneath it.

QUESTION 37.Who has the right of way when two aircraft are landing together?

A. The faster aircraft.
B. The lower aircraft. (unless the other is obviously in distress).
C. The aircraft with the lower performance, but only if it is a two seater.
D. The least experienced pilot.

QUESTION 38.What does a red and yellow striped arrow in the signal square of an airfield indicate?

A. The direction to follow the taxiway when recovering aircraft or gliders to park.
B. The direction of thermal turns for gliders.
C. The direction in which to vacate the runway after landing.
D. The direction of circuit in use.

QUESTION 39.You are joining below a glider in a thermal. What are your actions?

A. Leave the thermal and find another.
B. Turn either direction as long as there is sufficient separation.
C. Turn in the same direction.
D. Remain at a safe distance below the other glider.

QUESTION 40.Whilst planning a cross country flight you notice by reference to Notams that a purple airway has been established along your intended route during the period 1300 to 1500 Hrs. What should your actions be?

A. Continue as planned as it only applies to powered aircraft.
B. Change your route to remain clear of the airway during the notified period.
C. Continue as planned and cross the airway in VMC conditions at right angles.
D. Cross the airway as low as possible to avoid conflict with the royal aircraft.

QUESTION 41.An area on a 1:500,000 scale ICAO chart is annotated as being a Danger area. What does this mean with regards to a glider in flight?

A. Flight within the published dimensions is restricted to periods where no dangerous activities are taking place.
B. Flight within the published dimensions may encounter activities dangerous to the glider or it's occupants.
C. There is little relevance to gliders as they may enter the area at will.
D. Flight within the published dimensions is prohibited.

QUESTION 42.What does a double white cross (++) showing on a runway indicate?

A. An area where the runway is not available for landing.
B. Gliders and powered aircraft are using the same runway.
C. An area that shall only be used for the take off and landing of gliders.
D. An area that shall only be used for powered aircraft.

QUESTION 43.What are the knock-on effects of a glider pilots driving licence being revoked on medical grounds?

A. The pilot should inform his CFI within 30 days, who will make the appropriate decision.
B. The pilot should only fly solo. No passenger carrying allowed.
C. The pilot becomes unfit to fly gliders solo.
D. There are no problems and the pilot may continue as normal.

QUESTION 44.What does a white 'T' in the signal square of an airfield denote?

A. Aircraft landing and taking off will do so in a direction parallel with the shaft of the 'T' and towards the cross arm.
B. The location of the tea cabin.
C. Gliders will be landing at right angles to that of powered aircraft.
D. Two runways are simultaneously in use.

QUESTION 45.All BGA gliders must carry their approved identification markings. What are the requirements?

A. Displayed on the under side of the starboard wing.
B. Displayed on the fin and rudder and on the under side of the port wing.
C. Displayed on each side of the fin and rudder or on the fuselage in a substantially vertical plane. As large as practicable.
D. Displayed in the cockpit as a reminder when using the radio.

QUESTION 46.Nose of tug to tail of glider, what is the maximum length of a tug / glider combination?

A. 150 yards in total.
B. 150 metres in total.
C. 100 yards in total.
D. 100 meres in total.

QUESTION 47.What is the minimum number of aerotows required by the tug pilot and glider pilot combined before launching may take place?

A. 20.
B. 10.
C. 6.
D. There is no minimum requirement as both are trained for their respective roles.

QUESTION 48.What is the minimum equipment required in a glider used for aerobatic flying?

A. A five point harness and serviceable parachute.
B. An approved pitot tube extension to enable inverted flight.
C. An artificial horizon.
D. A serviceable G meter.

QUESTION 49.What is the minimum age required before flying a glider solo in the United Kingdom?

A. 16 years.
B. 14 years.
C. 17 years.
D. 15 years.

QUESTION 50.The captain of any aircraft must satisfy himself that the intended flight can be made safely. In order to achieve this, it is an operational requirement that all gliding clubs provide what facilities?

A. Navigational information concerning temporary hazards and permanent changes.
B. A telephone link to the nearest ATC unit to inform them of the days operation.
C. Meteorological forecasts for the use of club members.
D. Briefings for all cross country flights.

QUESTION 51.Certain areas of class 'B' airspace have been annotated as 'Gliding areas'. The controlling Air Traffic agency requires a request to utilise the areas prior to gliders flying in this airspace. What are the time periods required for notification by telephone to the Air Traffic agency?

A. Two hours before intended use and five minutes prior to entry.
B. Twenty four hours before intended use and two hours prior to launch.
C. Two hours before launch and five minutes prior to entry.
D. Twenty four hours before intended use and two hours prior to entry.

QUESTION 52.What are the rules for glider flights between FL 245 and FL 660?

A. There are no restrictions.
B. Only allowed in certain designated areas (windows) with prior permission.
C. No glider flights allowed due to the difficulties in controlling such airspace.
D. Only allowed during the hours of day light as determined on the ground.

AIRMANSHIP

QUESTION 1. You have just landed your glider heavily. What are the correct actions?

A. Place an entry in the log book advising the requirement for an inspection at the next convenient opportunity.
B. Inform the duty instructor before the aircraft flies again.
C. Inspect the aircraft in the workshop at flying cesation.
D. Inform the next pilot of a possible problem on the next flight.

QUESTION 2. What will happen to the eyes when a pilot is operating at altitude or above cloud with an empty field of view?

A. They will tend to focus at infinity.
B. They will naturally focus at the ideal point to detect other aircraft.
C. They will focus on the instruments only.
D. They will tend to focus at a point 1 to 2 metres away.

QUESTION 3. What will happen to the pilot who accepts a seating position that is too low in the cockpit?

A. They will lose from view a part of the approach area under the nose of the glider.
B. They will not suffer any dissadvantage.
C. They will have a tendancy to undershoot.
D. They will be able to see much further ahead of the glider.

QUESTION 4. On arrival at a strange airfield, you call on the notified frequency but get no reply. Your radio is serviceable, what should your actions be?

A. Land anyway, regardless of no radio contact.
B. Land outside the boundary as the airfield is probably closed.
C. Continue with intended landing, watch for other traffic and follow suit, make relevant 'blind calls' on the radio.
D. Try and soar back to your home site.

QUESTION 5. What are the correct actions on joining a thermal?

A. Turn the same direction as other gliders and keep a good lookout.
B. Keep a good lookout and centre in the lift, regardless of others.
C. Centre as quickly as possible to make most use of the lift.
D. Always turn left in the northern hemisphere.

QUESTION 6. While ridge soaring with the hill on your right, you have to overtake another glider. What should your actions be?

A. Descend underneath, but staying in the lift.
B. Overtake on the right.
C. Overtake on the left.
D. Pass on either side as it doesn't matter.

QUESTION 7. While watching a glider about to launch with a senior instructor on board, you notice the air brakes are open. What should you do?

A. Stay quiet so as not to look the fool.
B. Ask the advise of the duty pilot.
C. Stop the launch and bring it to the attention of the duty instructor.
D. Nothing, as the senior instructor probably knows about it.

QUESTION 8. You have flown every week-end for six months but missed the last four weekends. What should your actions be?

A. Continue as normal, lack of currency is not an issue.
B. Ask for a check flight or discuss your situation with the duty instructor.
C. Fly dual if there is a two seater available.
D. Fly the single seater to regain currency.

QUESTION 9. You notice on the daily inspection that the radio keeps blowing fuses. What should you do?

A. Tell the duty instructor before you fly the glider.
B. Replace with a larger fuse until the problem is solved.
C. Get a qualified person to check the radio or clearly mark the radio 'u/s'.
D. Sort the problem at flying cesation.

QUESTION 10.A glider on a head on collision course with a military aircraft could have a very high closing speed. In such a situation, how would the image of the military aircraft appear to grow in size with decreasing range?

A. It would grow at a constant rate.
B. Initial growth would be rapid and further growth at a constant rate.
C. Initial growth would be small until close to impact where growth would become rapid.
D. Initial growth would be rapid all the way to impact.

QUESTION 11.As the winch cable is being attached you notice that the weak link is damaged. What should you do?

A. Continue, as it launched the last glider alright.
B. Have the suspect item changed before launching.
C. Continue, as you are current on launch failures anyway.
D. Have the item changed at the end of the days flying.

QUESTION 12.You are commencing a launch on the winch when you notice a glider turning in early to land up the field. Is this a problem?

A. As the launch has commenced the decision lies with the launch marshall.
B. No, 'all clear' means the immediate vicinity.
C. No, even if you have a launch failure there should be no confliction.
D. Yes, if you have a launch failure you may have conflicting approaches.

QUESTION 13.You are converting to a new type. There is a cross wind and you are about to aerotow on the belly hook using an unusually short aerotow rope. What should you do?

A. Ask the wing tip holder to hold the into wind wing lower than normal so as to assist with keeping the wings level at slow speed.
B. Ask the wing tip holder to hold back on the down wind wing.
C. Refuse the launch as it is getting dangerous to continue under the circumstances.
D. Wire lock the back release mechanism to prevent inadvertant release.

QUESTION 14.A glider and a military aircraft could have a closing speed of 600 kts. If the visibility is 5 miles, but the pilots only see each other at 3 miles, how much time would the pilots have to avoid collision?

A. About 20 seconds.
B. About 35 seconds.
C. About 45 seconds.
D. About 55 seconds.

QUESTION 15.You are breathing abnormally and showing symptoms similar to hypoxia at a low altitude where hypoxia would not be a consideration. What are you likely to be suffering from?

A. Fatigue.
B. Hypoxia.
C. Anoxia.
D. Hyperventilation.

QUESTION 16.There are certain vital actions to be taken in the event of a launch failure. Which of the following is the most correct statement?

A. Release the cable, regain flying speed and land ahead.
B. Adopt a nose down attitude, regain a safe flying speed, release what is left of the cable and land according to your 'Eventualities' brief if possible.
C. Adopt a nose down attitude, release what is left of the cable, land ahead or choose an alternative landing area.
D. Return to the normal gliding attitude, check speed and land back at the launch point if possible.

QUESTION 17.On visiting a hill site, you read on the notice board a club rule stating a minimum height to leave the hill and return to site. Who does this apply to?

A. All pilots, regardless of experience and ability.
B. Only local pilots as this is a local rule.
C. Only non instructors.
D. Only visitors, as they are unlikely to be familiar with the site.

QUESTION 18.You are wire launching when you notice the parachute opening. What should be your immediate actions?

A. Pull back so as to tension the cable and close the chute.
B. Wait on the winch driver sorting out the power.
C. Treat the situation as a launch failure and take the appropriate actions.
D. Investigate the serviceability of the parachute once back on the ground.

QUESTION 19.Whilst flying downwind with a higher performance glider in front, and at about the same height as yourself, you notice he appears to be extending downwind further than you would like. What action should you take?

A. Follow the other glider and use less airbrake on the approach.
B. Ignore the other glider and fly your own circuit.
C. Follow the other glider and land in the undershoot if necessary.
D. Turn in early and be prepared to land up the field if necessary in order to avoid a potential conflict.

QUESTION 20.After getting low on a cross country and choosing a field, you notice there is a stream along one side of it. What might this signify?

A. The field slopes down towards the stream.
B. The field slopes up towards the stream.
C. The field will be very soft, therefor the landing run will be short.
D. There are probably cattle nearby, so land with caution.

QUESTION 21.Who is responsible for stopping a launch should anything be going wrong?

A. The launch point controller.
B. The duty instructor.
C. Anybody.
D. The pilot.

QUESTION 22.After Scuba diving, the guide lines are ‘do not fly within 12 hours of swimming using compressed air and avoid flying for 24 hours if a depth of 30 feet has been exceeded’. Which risk is being kept to a minimum?

A. Hyperventilation.
B. Hypoxia.
C. Decompression sickness.
D. Sensory loss.

QUESTION 23.What is the function of the eustachian tube?

A. To allow the middle ear to drain freely.
B. To allow the middle ear to equalize with ambient pressure.
C. To allow the inner ear to equalize with ambient pressure.
D. To allow the inner ear to drain freely.

QUESTION 24.You are P2, flying mutually with a more experienced pilot who you consider has chosen an incorrect course of action which may endanger the glider. What should your actions be?

A. Accept this course of action as the other pilot is P1.
B. Question the action of the pilot, only if you think the handling pilot will listen.
C. Take control from the handling pilot and rectify the situation.
D. Always express any doubts that you may have.

QUESTION 25.On a cross country flight in August you are faced with an out landing. Assuming no obstructions and fields of adequate size, which of the following would be the correct choice?

A. A field with cows in one corner.
B. A field of standing corn.
C. A field with sheep in one corner.
D. A stubble field that has a border ploughed around it.

QUESTION 26.In which direction should all turns be made when hill soaring?

A. Away from the hill.
B. Left.
C. Right.
D. Same as the glider in front.

QUESTION 27.You are about to land out. Which of the following is the best option, when the only suitable field has a slope in it, and the wind is up the slope?

A. Land down hill, into wind.
B. Land across the slope, and cross wind.
C. Land up hill, down wind.
D. Land diagonally down slope to give the longest ground run with an into wind component.

QUESTION 28.You are on aerotow when you notice the rudder of the tug waggling from side to side. What should your actions be?

A. Check air brakes are closed and jettison tail chute if it has deployed.
B. Check air brakes are closed.
C. Release immediately.
D. Fly out to the left and rock your wings in reply.

QUESTION 29.You are faced with a field landing. You know the 4000' wind is 240 degrees, 20 kts. What is the surface wind most likely to be?

A. 240 degrees, 10 kts.
B. Greater than 240 degrees, less than 20 kts.
C. Less than 240 degrees, greater than 20 kts.
D. Less than 240 degrees, less than 20 kts.

QUESTION 30.Which of the following is most correct when entering a turn?

A. Lookout first then turn.
B. Lookout, look over the nose, then turn.
C. Ensure it is clear in the direction of the turn, then turn.
D. Start the turn, then lookout in the same direction.

QUESTION 31.What actions should be taken when flying through an area of sink?

A. Slow down so as to reduce the rate of descent.
B. Increase speed so as to spend as little time in the sink as possible.
C. Continue as normal because the lift on the other side of the sink will compensate for the height loss.
D. Slow down and turn away from the sink.

QUESTION 32.What is the approximate time required to eliminate 1 unit of alcohol from the blood?

A. 30 minutes.
B. 60 minutes.
C. 90 minutes.
D. 120 minutes.

QUESTION 33.When keeping a good lookout, how is the most effective scanning achieved?

A. A series of short, regularly spaced eye movements, progressing across the field of view.
B. Rapidly and smoothly sweeping the entire field of view.
C. A random scan of the most likely areas of conflicting traffic.
D. Alternating between three or four different areas.

QUESTION 34.During a solo flight you notice the handling appears to be different from the last time you flew it. What action, if any, should you take after landing?

A. None.
B. Check the log book to see if any ballast weight has been added or removed.
C. Bring it to the attention of the duty instructor before it flies again.
D. Let the next person to fly the glider know of the problem.

QUESTION 35.While flying in cloud you notice the ASI reading slowly reduces to zero. What is the most likely cause?

A. You are fully stalled.
B. There is ice in the static system.
C. There is water in the pitot system.
D. There is ice in the pitot system.

QUESTION 36.You are down wind to land at your home site when you are overtaken by a higher performance glider with only one airbrake extended. Who has right of way?

A. The other glider, as there is an emergency.
B. You have right of way as the lower performing glider.
C. The other glider, due to its faster circuit speed.
D. You have right of way, even though there is an emergency in progress.

QUESTION 37.You are half way up the winch launch when the speed increases above max winch launch. What should be your immediate actions?

A. Lower the nose slightly and give the too fast signal. If, after a few seconds, you are still too fast, then abandon the launch.
B. Pull back so as to load the winch and reduce the speed.
C. Release immediately.
D. Maintain the climbing attitude and wave off.

QUESTION 38.You are soaring in a moderate westerly wind, a ridge which runs north west to south east when orographic cloud forms all around. Which compass heading and speed should you fly?

A. 180 degrees at best L/D.
B. 270 degrees at min sink.
C. 245 degrees at min sink.
D. 245 degrees at best L/D.

QUESTION 39.You are about to join a thermal with two gliders circling in opposite directions. Which way do you turn?

A. Same direction as the higher glider.
B. Same direction as the lower glider.
C. Either direction as the thermal would seem to be a free for all.
D. Same direction as the closer glider.

QUESTION 40.You are about to land as there is thunder storm activity from a Cb close by. What should you particularly be aware of?

A. Lightning flashes which may blind temporarily.
B. Rapid changes in wind strength and direction.
C. Reducing visibility due to low cloud base.
D. Reduction in performance due to wet wings.

QUESTION 41.While hill soaring with the hill on your left, you meet a higher performance glider coming the other way. Who has right of way and what actions should you take?

A. The other glider has right of way and you should turn right.
B. You have right of way being the lower performing glider but should be prepared to give way.
C. You have right of way but the rules of the ridge dictate that you should give way.
D. Neither has right of way and both should turn right.

QUESTION 42.Whilst in a straight glide you notice another glider on your right at about the same height. The bearing relative to you is remaining constant and the separation is reducing. What actions should you take?

A. None, as you have right of way.
B. Take avoiding action as the other glider has right of way.
C. Wait to see what develops but be prepared to take avoiding action.
D. Increase speed to try and out glide the other glider.

QUESTION 43.A pilot is faced with a field landing into a slightly down sloping field. What is most likely to happen?

A. A shallower approach than intended will be flown.
B. A normal approach will be flown, as intended.
C. A steeper approach than normal will be flown.
D. An under shoot will be flown.

QUESTION 44.What is the main cause of motion sickness?

A. Direct effect of movement on the stomach.
B. The mismatch between visual and vestibular sensory inputs.
C. Changes in blood pressure produced by motion.
D. Long periods of 'head inside the cockpit'.

QUESTION 45.After an aerobatic session in a semi-aerobatic glider, the accelerometer reads +4g and -2.5g. What action do you need to take, if any?

A. None, as the limit loads have not been exceeded.
B. Inform the duty instructor before it flies again, as the placard limits have been exceeded.
C. Make an entry in the DI book to record the applied loads.
D. Inform the CFI at the end of the day.

QUESTION 46.On returning to your home airfield after a long flight, the duty instructor alerts you on the radio, of a strong wind gradient. What should you do?

A. Watch for heavy sink on the approach.
B. Increase airspeed well above the normal and be prepared for a rapid reduction in airspeed close to the ground.
C. Be prepared to use less airbrake on the later part of the approach.
D. All of the above.

QUESTION 47.You are climbing in good wave lift, but your glider is not equipped with oxygen. At what height is it recommended you should abandon your climb?

A. 12,000 feet.
B. 10,000 feet.
C. 8,000 feet.
D. 17,000 feet.

QUESTION 48.While on a cross country, you are continually correcting your heading to the right in order to reach your goal. What might this signify?

A. The wind is from the right of track.
B. The wind is from the left of track.
C. There is probably a magnetic anomaly affecting the compass.
D. Magnetic variation is particularly strong at this time.

QUESTION 49.What disadvantages, if any, would there be in getting too close to cloud base?

A. You may loose sight of your next thermal.
B. You may inadvertently enter cloud and exit in the wrong direction.
C. You may inadvertently enter cloud and ice up sufficiently enough to lose out on performance, making the extra height gain worthless.
D. All of the above.

QUESTION 50.How would you check your chosen field for slope?

A. Look for a lack of crop.
B. Look for sheep where cattle would normally be..
C. Check the map for contours.
D. Fly around the field checking visually for slope.

QUESTION 51.What are the stall recovery actions?

A. Stick forward, regain flying speed, level the wings (if necessary) and return to the normal gliding attitude.
B. Regain flying speed and return to the normal gliding attitude.
C. Stick forward, wings level, regain flying speed and return to the normal gliding attitude.
D. Stick forward, regain flying speed and return to the normal gliding attitude.

QUESTION 52.What is the correct mnemonic for the glider pre manoeuvre checks?

A. HASL (height, area, security and lookout.)
B. HASSL (height, airframe, security, straps and lookout.)
C. HASSLL (height, airframe, straps, security, location and lookout.)
D. HASELL (height, airframe, security, engine, location and lookout.)

QUESTION 53.When carrying out the pre manoeuvre checks, what does the airframe part of the check call for?

A. Ensure that the airframe is cleared for the manoeuvres to be flown.
B. It acts as a reminder of the ‘g’ limits.
C. A check of placarded limiting speeds and loads and that the glider is cleared for the manoeuvres and that the correct configuration is used, i.e. flap settings etc.
D. A check of the limiting speeds such as Vne and Max Manoeuvre.

QUESTION 54.Why is it important to judge height without reference to an altimeter when flying a circuit?

A. Altimeter errors and pressure changes render the altimeter inaccurate and unreliable.
B. So as to be able to land safely, should the altimeter fail.
C. It is a requirement for the Bronze C flying check.
D. You may have forgotten to return the subscale to the correct setting.

QUESTION 55.When should a positive control check be carried out?

A. Before each flight.
B. Only after rigging the glider.
C. Before each days flying commences.
D. Before each days flying and immediately after rigging the glider.

QUESTION 56.What effect would 50 foot trees on the down wind boundary of your chosen field have on your landing run, assuming you would normally touch down just inside the field perimeter?

A. There will be no effect what so ever.
B. They will move the touch down point 500 feet further up the field.
C. They will move the touch down point 50 feet further up the field.
D. They will cause a wind shadow in the first 500 feet of the field.

QUESTION 57.A tobacco smoker, compared to a non-smoker, is subjected to altitudes at which the onset of hypoxia is likely. What will probably be the experience of the smoker?

A. Initial symptoms will be experienced at a lower cabin altitude.
B. Initial symptoms will be experienced at a higher cabin altitude.
C. Initial symptoms will be experienced at the same cabin altitude.
D. Initial symptoms will be experienced at the same cabin altitude, but worse.

QUESTION 58.You are suffering from a common cold. What is the most likely event whilst flying?

A. The reduced pressure whilst flying will ease any discomfort caused by the infection.
B. Changes in pressure are likely to cause discomfort.
C. There should be no effects whilst flying.
D. You may feel a little dizzy but may ignore the symptoms and continueto fly.

QUESTION 59.Is it important to read NOTAMs before flying cross country?

A. No, if there is any problems, the duty instructor will point them out.
B. Yes, it is the pilots responsibility to familiarise themselves with the notices.
C. No, they only apply to royal flights and the Red Arrows.
D. Yes, but only when planning to fly through controlled airspace.

QUESTION 60.You are final gliding back to your home airfield and wish to fly a competition type finish. You call on the radio for permission but get no reply, what should be your actions?

A. Continue as planned, flying must have stopped.
B. Continue as planned, but keep a lookout for other gliders.
C. Change to a more conservative type finish followed by a normal circuit.
D. Keep trying on the radio until you get a reply.

QUESTION 61.What are the correct actions when a glider on your left is converging on your flight path.

A. Although you have right of way, take avoiding action early if necessary.
B. No action required as you have right of way.
C. Take avoiding action, as the other glider has right of way.
D. Increase speed so as to out glide the other aircraft.

QUESTION 62.You are final gliding to your home airfield when you realise that you are unsure of reaching the airfield. What is the best course of action?

A. Continue as planned as you will be able to dolphin the last bit and get home.
B. Choose a field and land.
C. Change course and fly towards the nearest thermal.
D. Continue towards the airfield, but only if there is an alternative landing area available between you and the airfield.

QUESTION 63.You are in the process of winch launching when there is a delay at the winch. Your canopy has begun to mist up but you have the cable attached. What is the best course of action?

A. Continue, as the canopy will clear on the launch.
B. Release the cable and clear the canopy before launching, a launch failure could be disastrous with poor visibility.
C. Continue, making use of the DV panel as required.
D. Open the DV panel and all vents in order to clear the canopy once the launch begins.

QUESTION 64.Having consumed a small amount of alcohol, how long should you wait before flying?

A. 4 Hrs.
B. 6 Hrs.
C. 8 Hrs.
D. 10 Hrs.

QUESTION 65.You are on medication, the effects of which you are unsure. What is the correct thing to do?

A. Continue to fly.
B. Do not take the medication whilst airborne.
C. Wait a while after taking the medication to see if there is any reason not to fly.
D. Do not fly. If in doubt seek medical advice.

QUESTION 66.Who is responsible for stopping a launch?

A. The duty instructor.
B. Anybody.
C. The pilot.
D. The wing tip holder.

QUESTION 67.A Glider overtaking another in the UK shall follow which rule?

A. Always overtake from above.
B. Overtake on either side.
C. Always overtake on the right.
D. Always overtake on the left.

QUESTION 68.Which of the following is correct when 2 aircraft are on a converging course?

A. The aircraft which has the other on its right has the right of way.
B. The aircraft at the lower altitude has the right of way.
C. The aircraft which has the other on its right shall give way.
D. The slower aircraft must give way.

QUESTION 69.What does hyperventilation lead to?

A. A shortage of oxygen.
B. Blackouts.
C. Greyouts.
D. An excess of oxygen.

QUESTION 70.What effects will cigarette smoking have on a pilot?

A. It will reduce the amount of oxygen in the blood.
B. It will increase the amount of oxygen in the blood.
C. It will increase the pilots decision time.
D. It will increase the pilots awareness.

QUESTION 71.What name is given when the body is suffering from low temperatures?

A. Hypoxia.
B. Hypothermia.
C. Hypoglycaemic.
D. Anoxia.

QUESTION 72.What happens to the amount of oxygen that diffuses across the lung membranes when at high altitudes?

A. It remains the same.
B. It increases.
C. It reduces due to temperature reductions.
D. It reduces due to pressure reductions.

QUESTION 73.What happens to the percentage content of oxygen in the air as altitude increases?

A. It decreases due to decrease in temperature.
B. It increases.
C. It remains the same.
D. It decreases due to decrease in pressure.

QUESTION 74.The respiratory process is governed by chemical receptors in the brain which monitor the levels of oxygen and carbon dioxide. Which of the following is the most accurate statement with respect to a healthy body?

A. The body is more sensitive to changes in oxygen than carbon dioxide.
B. The body is more sensitive to changes in carbon dioxide than oxygen.
C. The body is more sensitive to changes in the gas registering the least amount.
D. The body is more sensitive to changes in the gas registering the largest amount.

QUESTION 75.Which of the following list of signs and symptoms are associated with hypoxia? 1. Personality changes. 2. Impaired judgement. 3. Muscular impairment. 4. Memory impairment. 5. Sensory loss. 6. Impairment of consciousness.

A. Items 1 and 2 only.
B. Items 1 to 3 only.
C. Items 1 to 4 only.
D. All of the above items.

QUESTION 76.Which of the following should be carried out before washing a glider

A. Ensure that the airbrakes are locked in.
B. Ensure that the control column is restrained by the harness.
C. Ensure that the wheelbrake is on.
D. Ensure that the aircraft is serviceable.

QUESTION 77.Which 2 conditions are particularly detrimental to GRP structure?

A. Polar Continental and polar maritime air masses.
B. Rain and strong winds.
C. Moisture and solar radiation.
D. Low humidity and light winds.

QUESTION 78.Why should care be taken when using a hose to rinse down a glider after washing?

A. Because there is a water shortage.
B. To ensure that water is not forced into orifices.
C. To minimise soap dilution.
D. To ensure personnel don't get wet.

QUESTION 79.In a motor glider, which type of poisoning may result due to a faulty exhaust system?

A. Carbon monoxide.
B. Carbon dioxide.
C. Hypoxia.
D. Blood.

QUESTION 80.What problems exist, if any, detecting carbon monoxide in the cockpit of a motor glider?

A. It is easily recognisable because of its peculiar odour.
B. It is easily recognisable because of its peculiar colour.
C. It is difficult to recognise because it is odourless and colourless.
D. It is impossible to detect.

QUESTION 81.What happens to the amount of oxygen available as altitude increases?

A. Decreases due to decrease in air density.
B. Remains the same.
C. Increases due to increase in density.
D. Becomes diluted.

QUESTION 82.Lack of oxygen may cause a particularly dramatic effect in a pilot. What is this known as?

A. Anoxia.
B. Hypoxia.
C. Suffocation.
D. Hyperventilation.

METEOROLOGY.

QUESTION 1. At the passage of a cold front, what will the wind do?

A. Veer and decrease.
B. Back and decrease.
C. Veer and increase.
D. Back and increase.

QUESTION 2. What type of cloud is associated with moist air flowing over a hill?

A. Anabatic cloud.
B. Radiation cloud.
C. Advection cloud.
D. Orographic cloud.

QUESTION 3. What does 'Buys Ballots' law state of the northern hemisphere?

A. If you stand with your back to the wind the low is on your left.
B. If you stand with your back to the wind the low is on your right.
C. Low pressure systems rotate clockwise when viewed from above.
D. Temperature decreases with height at a rate of 1.7 degrees per 1000 ft.

QUESTION 4. What is usually the first sign of an approaching warm front in the summer months?

A. Cumulo nimbus rapidly approaching from the west.
B. High layer cloud slowly approaching, with weakening soaring conditions.
C. Rain, heavy at first, slowly dying out as the front approaches.
D. Increasing winds, but little prospect of rain.

QUESTION 5. What weather associated with cumulo nimbus is considered to be the worst hazard when landing a glider?

A. Lightning, blinding pilots and damaging gliders.
B. Heavy rain leaving the wings performance seriously degraded.
C. Icing, degrading performance and making vision through the canopy difficult.
D. Increased wind strength together with rapid direction changes, making landing in particular, very difficult.

QUESTION 6. What is the cause of radiation fog?

A. Warm dry air flowing over cold wet ground.
B. Warm moist air flowing over cold dry ground, being cooled from beneath.
C. The sun warming cold moist ground.
D. Moist air cooling over night to below the dew point with light winds.

QUESTION 7. In the lower atmosphere, what is regarded as being the accepted reduction of pressure with increase in height?

A. 30 mb per 1000 feet.
B. 1 mb per 30 feet.
C. 1mb per 1000 feet.
D. 30 mb per 10,000 feet.

QUESTION 8. What is wind gradient?

A. Rapid changes in wind direction with height.
B. Turbulence, due to the fast flow close to the ground.
C. The difference in pressure between a high and a low.
D. Rapid reduction in wind strength close to the ground.

QUESTION 9. A high pressure inversion in summer will have what effects on soaring?

A. Prevention of the formation of thermals.
B. Prevention of the formation of cumulus, once the inversion is below the dew point.
C. Increase the overall average thermal strength due to lack of cloud shadow.
D. Allow thermals to continue later into the evening.

QUESTION 10.What is the overlapping of a warm and cold front called?

A. An occlusion.
B. A col.
C. A depression.
D. An inversion.

QUESTION 11.What is the name given to a line drawn on a map joining places of equal pressure?

A. An Isobar.
B. A millibar.
C. A pressure gradient.
D. An Isogonal.

QUESTION 12.Whilst flying cross country you notice that the cumulus are getting larger and some have developed an anvil shape at the top. What weather is most likely to follow?

A. Rapidly improving soaring conditions.
B. Deteriorating soaring conditions due to the increase in cloud shadow.
C. Thunder storms or rain showers leading to unsoarable areas.
D. Wide spread rain.

QUESTION 13.What effect in general, does a building high pressure system have on the level of an inversion?

A. The level rises as the high pressure system approaches.
B. The level remains the same, however, the dew point does rise above it.
C. The level falls slowly as the high pressure system approaches.
D. There is no effect on the inversion, however, the cloud base will lower.

QUESTION 14.Where might you find rotor cloud?

A. Over hill tops and in the lee of hills in association with wave systems.
B. Along a sea breeze front in association with strong lift and sink.
C. In front of orographic cloud.
D. Underneath cumulus nimbus clouds in association with down draughts.

QUESTION 15.What happens to visibility and temperature at the passage of a cold front?

A. Visibility increases and temperature decreases.
B. Visibility decreases and temperature decreases.
C. Visibility increases and temperature increases.
D. Visibility decreases and temperature increases.

QUESTION 16.What are the effects of diurnal variation on the soaring day?

A. The wind increases at the start of the day and decreases at the end of the day.
B. The wind veers and increases at the start of the day and backs and decreases at the end of the day.
C. The wind backs and increases at the start of the day and veers and decreases at the end of the day.
D. The wind veers and decreases at the start of the day and backs and increases at the end of the day.

QUESTION 17.The forecast wind is due to veer by 30 degrees during the morning. If the wind direction is a north easterly at the start, what will be the wind direction after it has veered, assuming the forecast is correct?

A. 015 degrees.
B. 045 degrees.
C. 075 degrees.
D. 225 degrees.

QUESTION 18.Due to a high pressure system the prevailing wind across the UK is from the south west on a summers day. What name best describes this wind?

A. Tropical maritime.
B. Tropical continental.
C. Polar maritime.
D. Polar continental.

QUESTION 19.What is the cause of advection fog?

A. Warm dry air, flowing over cold wet ground.
B. Warm moist air, flowing over a cold surface, being cooled from beneath.
C. The sun, warming cold moist ground.
D. Warm moist air, flowing over a hill or ridge.

QUESTION 20.In the atmosphere, air flows from high pressure to low pressure in an attempt to reach equilibrium. Why then, does the wind flow anti clockwise round a low pressure when viewed from above?

A. Due to the Earths rotation and the coriander effect.
B. Due to the Earths rotation and the Coriolis effect.
C. Due to the jet stream in association with the low.
D. Due to temperature gradients within the low creating friction between layers

QUESTION 21.In May a deep trough is forecast to pass through the local area during the day. What would be the most likely associated weather?

A. Excellent soaring, particularly after the trough has passed.
B. Poor soaring due to slowly deteriorating weather.
C. Particularly violent weather at the passage of the trough, including strong winds, heavy rain and Cb activity.
D. Better soaring during the passage of the trough, but otherwise a poor day.

QUESTION 22.In August, a weak ridge is forecast across the country the day after a cold front has passed through. What would be the most likely weather?

A. Poor soaring as the ridge will reduce the instability from the cold front.
B. Good soaring as a ridge reduces the instability behind the cold front preventing over convevtion.
C. Poor soaring due to over convection.
D. Deteriorating soaring conditions due to the lowering inversion.

QUESTION 23.What is the area, like a saddle on a mountain ridge, bounded by two high pressure systems and two low pressure systems called?

A. An occlusion.
B. A trough.
C. A ridge.
D. A Col.

QUESTION 24.What is a cause of temperature inversion?

A. Descending air warming due to compression and resting on the cooler airmass beneath.
B. Pollution in the lower atmosphere reflecting the suns energy.
C. Uneven heating of the atmosphere due to instability.
D. Uneven heating of the atmosphere due to stability.

QUESTION 25.You are flying from a site in the UK where the ridge faces south west. A depression is forecast to track close to the area over the next few days. Where would the centre of the depression need to be, in relation to the ridge site, for the ridge to work best?

A. Due south.
B. North east.
C. South west.
D. North west.

QUESTION 26.What is a visibility of more than 1000 metres but less than 2000 metres known as?

A. Fog.
B. Mist.
C. Haze.
D. Poor visibility.

QUESTION 27.A sea breeze front has been forecast to penetrate inland beyond one of your chosen turning points. Assuming this takes place before you get there, what would be the expected weather conditions as you approach the TP?

A. Improving soaring conditions until the TP has been rounded.
B. Deteriorating through the front, but much better round the TP.
C. Improved at the front, but weak soaring, if any, around the TP.
D. There will be little change to soaring conditions as most fronts of this type are weak.

QUESTION 28.What is the approximate rate of change of temperature with height for the dry adiabatic lapse rate?

A. 3 degrees Celsius loss per 1000 feet height gain.
B. 2 degrees Celsius loss per 1000 feet height gain.
C. 1.5 degrees Celsius loss per 1000 feet height gain.
D. 1 degree Celsius loss per 1000 feet height gain.

QUESTION 29.When an air mass rises it cools at a given rate. Cooler air cannot hold as much water vapour as warmer air and therefor eventually becomes saturated. What is this point called, and what happens there?

A. The saturated lapse point, and cloud vertical development starts here.
B. The dew point, and cloud vertical development stops here.
C. The saturated lapse point, and cloud vertical development stops here.
D. The dew point, and cloud vertical development starts here.

QUESTION 30.What are the three main stages called in the life cycle of a thunderstorm?

A. The cumulus stage, the mature stage and the dissipating stage.
B. The cumulus stage, the mature stage and the precipitation stage.
C. The cumulus stage, the precipitation stage and the dissipating stage.
D. The precipitation stage, the gust front stage and the dissipating stage.

QUESTION 31.What is meant by the term ‘stable air mass’?

A. The pressure is high, and therefore no thermal activity will be present.
B. The environmental lapse rate is less than the dry adiabatic lapse rate.
C. The airmass is dry, therefore no thermals or cumulus cloud will form.
D. The environmental lapse rate is greater than the dry adiabatic lapse rate.

QUESTION 32.What is the name given to the wind effect that increases temperature and raises cloud base in the lee of a hill?

A. The orographic wind effect.
B. The foehn wind effect.
C. The geostrophic wind effect.
D. The lee wave rotor wind effect.

QUESTION 33.What is the official definition of fog?

A. Visibility reduced to below 5000 metres.
B. Visibility reduced to below 1000 metres.
C. Visibility reduced to below 2000 metres.
D. Visibility reduced to below 3000 metres.

QUESTION 34.Icing effects, in particular, aerodynamics. What other effects does icing have on a glider?

A. Pitot tubes & static vents may become blocked.
B. Weight is increased which may alter the C of G position.
C. Weight is increased which may alter the C of G position and pitot tubes & statics may become blocked.
D. Weight is increased which may alter the C of G position, pitot tubes & statics may become blocked and radio communications may be degraded.

QUESTION 35.A large depression is centred over the north of Scotland. What will be the wind direction over central & southern England?

A. From the North.
B. From the East.
C. From the South.
D. From the West.

QUESTION 36.Three conditions are necessary for a thunderstorm to develop. If deep instability is forecast with a high moisture content, what is the third condition required?

A. Light winds and little cloud shadow.
B. Light winds aloft so as to allow vertical development of the cumulus.
C. An already high cloud base with large cumulus developing.
D. A trigger action such as a front forcing the air aloft, a mountain forcing the air aloft or strong heating of the lower air mass.

QUESTION 37.What is the approximate rate of change of temperature with height for the saturated adiabatic lapse rate?

A. 3 degrees Celsius loss per 1000 feet height gain.
B. 2 degrees Celsius loss per 1000 feet height gain.
C. 1.5 degrees Celsius loss per 1000 feet height gain.
D. 1 degree Celsius loss per 1000 feet height gain.

QUESTION 38.What causes hail to form?

A. Rain freezing as it falls through a cold atmosphere.
B. Rain falling through a temperature inversion.
C. Water molecules freezing in the up draughts of a Cb, growing with each cycle until too heavy to be sustained by the rising air.
D. Ice crystals in the upper cloud falling to the ground before they have time to melt.

QUESTION 39.Is it possible for thermals to develop under an extensive layer of strato-cumulus?

A. Yes, if there is sufficient instability in the atmosphere.
B. No, there will be insufficient energy from the sun reaching the ground.
C. No, strato-cumulus normally forms in stable conditions.
D. No, even where the layer cloud in broken or thin enough to allow the sun's energy through, insufficient energy will reach the ground.

QUESTION 40.What is the cause of a sea breeze front?

A. Sea heating more quickly than the land which causes the air to rise over the sea. This in turn leads to advection and the sea breeze.
B. Cooler sea air mixing with an offshore breeze creates the frontal system.
C. Land heating more quickly than the sea which causes the air to rise overland which in turn leads to advection and the sea breeze.
D. Warm air over the sea against cooler land air creates the frontal system.

QUESTION 41.What is the cause of katabatic winds?

A. Cooling air becomes more dense and therefore sinks. At night this sinking air will flow down hills and through valleys creating the wind.
B. Warm air becomes less dense and rises. With the sun on a slope during the day, warm air flows up hill creating the wind.
C. Exhaust air descending in a high pressure system leads to the creation of the wind.
D. The wind blowing over a ridge creates a low pressure on the leeward slope which in turn sucks air out of the leeward valley creating the wind.

QUESTION 42.What is the name given to the point at which water vapour condenses, and what is the required humidity?

A. The dew point and can occur at any percentage saturation.
B. The saturation level and can occur above 90% saturation.
C. The dew point and requires 100% saturation.
D. The evaporation point and requires 100% saturation.

QUESTION 43.What is the ICAO standard altimeter setting?

A. What ever the regional QNH is on the flight.
B. What ever the forecast QNH is on the day.
C. 1013.2 millibars, (hectopascals), regardless of local conditions.
D. 1013.2 millibars, (hectopascals), unless the regional QNH is lower.

QUESTION 44.When an altimeter scale is set to QNH, what does it indicate?

A. Height above the ground.
B. Altitude above the ground.
C. Altitude, which is height above 1013.2 millibars, (hectopascals).
D. Altitude, which is height above mean sea level.

QUESTION 45.What conditions are usually associated with warm dry air from the continent flowing over the UK in the summer?

A. Convective cloud, showers and thunderstorms.
B. Stratus, sea fog and drizzle.
C. Warm with clear skies.
D. Warm with hazy weather.

QUESTION 46.Which of the following is the most accurate definition of the adiabatic lapse rate?

A. The rate of change of temperature due to expansion with increasing height, taking into account the moisture content, i.e. dry or saturated.
B. The rate of change of temperature with increasing height.
C. The rate of change of pressure with height, taking into account the moisture content, i.e. dry or saturated.
D. The rate of change of pressure with height, taking into account air temperature.

QUESTION 47.The surface temperature is 20 degrees and the trigger temperature is 24 degrees centigrade. Assuming the environmental lapse rate 2 degrees, the dry adiabatic lapse rate is 3 degrees, what height will the thermal go to?

A. 2000 feet.
B. 3000 feet.
C. 4000 feet.
D. 5000 feet.

QUESTION 48.At what height is the surface wind measured?

A. 20 metres. (60 feet).
B. 10 metres. (30 feet).
C. 5 metres. (15 feet).
D. 3 metres. (10 feet).

QUESTION 49.An anticyclone may be described as the atmosphere at rest. What does the air mass consists of?

A. Slowly subsiding air flowing anticlockwise in the northern hemisphere.
B. Slowly rising air flowing clockwise in the northern hemisphere.
C. Rapidly subsiding air flowing anticlockwise in the northern hemisphere.
D. Slowly subsiding air flowing clockwise in the northern hemisphere.

QUESTION 50.What would be an indication of a strong wind on a weather Chart?

A. Isobars close together indicating a slack pressure gradient .
B. Isobars close together indicating a steep pressure gradient.
C. Contours close together indicating a steep wind gradient.
D. Isobars far apart indicating a steep pressure gradient.

QUESTION 51.What is the cause of the Coriolis effect?

A. Rotation of the earth.
B. Vertical air movements within a high.
C. Pressure differences.
D. Vertical air movements within a low.

QUESTION 52.Which direction does air flow around a high pressure in the northern hemisphere?

A. Anticlockwise.
B. Clockwise.
C. From low pressure to high pressure.
D. South.

QUESTION 53.What is the name given to lines depicting points of equal pressure on a synoptic chart?

A. Isogonals.
B. Isobars.
C. Contours.
D. Isometrics.

QUESTION 54.What is the cause of anabatic winds.

A. Cooling air becomes more dense and therefore sinks. At night this sinking air will flow down hills and through valleys creating the wind.
B. Warm air becomes less dense and rises. With the sun on a slope during the day, warm air flows up hill creating the wind.
C. Exhaust air descending in a high pressure system leads to the creation of the wind.
D. The wind blowing over a ridge creates a low pressure on the leeward slope which in turn sucks air out of the leeward valley creating the wind.

QUESTION 55. What is the cause of Hoar frost?

A. Dry air in contact with the ground being cooled below freezing.
B. Dry air in contact with the ground being saturated.
C. Moist air in contact with any surface being cooled below freezing.
D. Moist air in contact with the sea being cooled below freezing.

QUESTION 56.What is the cause of hill Fog?

A. Moist air forced uphill and its temperature reduced to below the dew point.
B. Dry air forced up hill and its temperature increased to the saturation point.
C. Moist air forced down hill and its temperature increased to the saturation point.
D. Moist air forced up hill and its temperature increased above the dew point.

QUESTION 57.What are the values of the dry adiabatic lapse rate (DALR) and saturated adiabatic laps rate (SALR).

A. DALR = 3 C per 1000 ft, SALR = 2 C per 1000 ft.
B. DALR = 3 F per 1000 ft, SALR = 2 F per 1000 ft.
C. DALR = 3 C per 100 ft, SALR = 1.5 C per 100 ft.
D. DALR = 3 C per 1000 ft, SALR = 1.5 C per 1000 ft.

QUESTION 58.What is the cause of wind?

A. The coriolis force.
B. Pressure differences trying to reach equilibrium.
C. The rotation of the earth.
D. Air mass modification.

QUESTION 59.Cloud amounts are reported in Oktas. Clouds are also divided into 10 main classifications. What does the information 3/8 SC, 6/8 CS, 4/8 AC indicate?

A. 3/8 Stratocumulus, 3/4 cover Cirrostratus, 1/2 cover Altocumulus.
B. 3/8 Stratus, 3/4 cover Cirrostratus, 4/8 cover Altocirrus.
C. 3/8 Cumulostratus, 6/8 Stratocumulus, 4/8 Altocumulosaltus.
D. 3/8 Stratocumulus, 6/8 cirrostratus, 4/8 Altrocirrolus.

QUESTION 60.What are the most severe weather conditions causing destructive winds, squalls, heavy rain and hail, generally associated with?

A. Thunderstorms and line squalls over land.
B. Slow moving cold fronts over the sea.
C. Fast moving warm fronts over the land.
D. Fast moving cold fronts over the sea.

QUESTION 61.What is a squall line usually associated with?

A. A fast moving warm front.
B. An occluded front.
C. A fast moving cold front.
D. A stationary front.

QUESTION 62.What is an Isobar?

A. A line drawn on a synoptic chart joining points of equal height above mean sea level.
B. A line drawn on a synoptic chart joining points of equal pressure at mean sea level.
C. A line drawn on a synoptic chart joining points of equal pressure at 1013.2 Mb.
D. A line drawn on a synoptic chart joining points of equal temperature corrected to a standard atmosphere.

QUESTION 63.What would be a typical characteristic of a Tropical Continental airmass in winter?

A. Warm and fairly dry.
B. Warm and moist with low cloud, rain/drizzle.
C. Cool and moist perhaps with hail and thunder.
D. Very cold and dry.

QUESTION 64.What is a surface visibility of less than 1000 metres classed as?

A. Fog.
B. Haze.
C. Mist.
D. VMC.

QUESTION 65.Which condition is most likely to effect gliding within a stable air mass?

A. Good visibility at the surface, poor at height.
B. Moderate turbulence at low level with good visibility.
C. Smoke, haze and dust concentrated in lower levels resulting in poor visibility.
D. Steady drizzle with very poor visibility.

QUESTION 66.What is the name given to the ratio of existing water vapour in the air, as compared to the maximum amount that could exist at a given temperature?

A. The condensation level.
B. The saturation level.
C. The relative humidity.
D. The dew point.

QUESTION 67.What causes the wind to increase and veer with increase in height?

A. Geostationary forces and decreasing air pressure.
B. Geostrophic forces and surface friction.
C. Geostrophic forces and increasing air pressure.
D. Geostationary forces and surface tension.

QUESTION 68.What is the correct name given to a weather map?

A. Isobar Chart.
B. Ordinance Chart.
C. Synoptic Chart.
D. Astro Chart.

QUESTION 69.What name is given to an airmass that originated from Greenland?

A. Polar Continental.
B. Tropical Maritime.
C. Tropical Continental.
D. Polar Maritime.

QUESTION 70.What name is given to an airmass that originated from Africa?

A. Polar Continental.
B. Polar Maritime.
C. Tropical Maritime.
D. Tropical Continental.

NAVIGATION part 1.

QUESTION 1. What is the approximation when using a 1:250 000 scale chart?

A. 2.5 statute miles or 3 nautical miles to the inch.
B. 4 statute miles or 3.5 nautical miles to the inch.
C. 6 statute miles or 5 nautical miles to the inch.
D. 8 statute miles or 6.5 nautical miles to the inch.

QUESTION 2. The forecast wind is 230/10. You are on a 50km flight where the desired track is 178 degrees true. What effect will the wind have on the glider?

A. Drift to left of track with low ground speed.
B. Drift to right of track with low ground speed.
C. Drift to left of track with high ground speed.
D. Drift to right of track with high ground speed.

QUESTION 3. What is the difference between track and heading?

A. Track is the way the glider points / heading is the route over the ground.
B. Heading is the way the glider points / track is the route over the ground.
C. Due to the low speeds involved with gliding they are assumed to be the same.
D. Track takes into account wind direction and strength. Heading doesn't.

QUESTION 4. Your airfield is 270 feet above mean sea level (amsl). If the airfield pressure (QFE) is 998 millibars (hectopascals), what height above the airfield is flight level 55? (Assume 1 millibar = 30 feet).

A. 5500 feet.
B. 5950 feet.
C. 5450 feet.
D. 5050 feet.

QUESTION 5. During a final glide, the GPS gives a ground speed of 90 kts and you are flying with an IAS of 75 kts. There is 15 NM to your goal airfield. How long will the glide take and what is the wind component?

A. 15 minutes and 15 kts tail wind.
B. 15 minutes and 15 kts head wind.
C. 10 minutes and 15 kts tail wind.
D. 10 minutes and 15 kts head wind.

QUESTION 6. In a glider, which of the following defines visual flight rules below 3000 feet?

A. 1000 feet vertically and 5 nautical miles horizontally from cloud and in sight of the ground.
B. 1500 feet vertically and 1000 feet horizontally from cloud and in sight of the ground.
C. 1000 feet vertically and 1500 feet horizontally from cloud and in sight of the ground.
D. Clear of cloud, and in sight of the surface, in a flight visibility of 1500 metres when airspeed is 140 kts or less.

QUESTION 7. What is your average cross country speed if you cover 30 Kms in the first 40 minutes of a flight?

A. 35 Kph.
B. 40 Kph.
C. 45 Kph.
D. 50 Kph.

QUESTION 8. After a long busy period in a weak thermal, you are unaware of your exact location. What are the correct actions?

A. Check your GPS for an accurate fix.
B. Carry on with the original heading as you shouldn't have drifted too far.
C. Find three features on the ground and look for them on the map to identify your exact position.
D. Find three features on the map and look for them on the ground to identify your exact position.

QUESTION 9. When is the E2B or Airpath compass most reliable for gliding?

A. On an east or west heading.
B. On a north or south heading.
C. Flying straight and level at a constant speed.
D. Stationary at the equator.

QUESTION 10.The time is 1600 hrs UTC. You are on the second leg of a 300 kilometre triangle and the track for the leg is 275 degrees. Where should the sun be?

A. Behind.
B. On your right side.
C. Left of straight ahead.
D. In your five O'clock position.

QUESTION 11.You note on a chart that an airway extends upwards from FL 45. What does this mean with reference to the base of the airway?

A. The base is 4500 ft above mean sea level.
B. The base is 4500 ft indicated with the pressure setting on the subscale that made the altimeter read zero before take off.
C. The base is 4500 ft above the ground at all times.
D. The base is 4500 ft indicated with 1013 millibars set on the altimeter subscale.

QUESTION 12.You contact a thermal immediately under neath an airway, the base of which is FL 35. The in flight visibility is less than 2 Km. Your altimeter is set to QNH at an airfield which is 200 ft AMSL. Given that the sea level pressure is 1013 mb, how high can you legally climb as indicated on your altimeter?

A. 3500 ft which is the base of the airway.
B. 3000 ft to comply with visual flight rules.
C. 3300 ft which is the base of the airway.
D. 2800 ft to comply with visual flight rules.

QUESTION 13.Whilst flying cross country you stray several miles into a large control zone from which gliders are prohibited. What should be your actions on discovering your error?

A. Continue soaring and leave the zone as quick as possible.
B. Land at once and contact the controlling authorities to inform them of your actions.
C. Try to climb above the airspace if possible.
D. Continue as planned but inform the CFI after you land.

QUESTION 14.The first leg of an out and return cross country flight is 045 degrees true. Magnetic variation is 5 degrees west. What will the reciprocal heading be?

A. 230 Magnetic.
B. 225 Magnetic.
C. 220 Magnetic.
D. 235 True.

QUESTION 15.On a 1 : 500 000 scale chart, what length of line would represent 50 Kms?

A. 4 inches or 10 centimetres.
B. 7 inches or 18 centimetres.
C. 9 inches or 23 centimetres.
D. 13 inches or 33 centimetres.

QUESTION 16.What does the annotation D124/2 refer to when next to an area bounded by a solid red line on the 1:500 000 scale aeronautical chart?

A. It is a permanent danger area up to 2000 ft amsl.
B. The area is prohibited to all types of aviators below 12 400 ft.
C. It is a danger area activated by NOTAM.
D. It is an area you should pass through expeditiously.

QUESTION 17.What is the main limitation when using a 1:250 000 scale aeronautical chart?

A. The scale is not large enough.
B. Many key ground features are not shown.
C. Airspace above 3000 ft is not shown.
D. Too much information is shown, leading to confusion.

QUESTION 18.What is the importance of reading TNW's (Temporary Navigation Warnings) before flying cross country?

A. They contain useful information about air shows.
B. They serve as a reminder of restricted air space.
C. They contain information on royal flights.
D. They list important information about notified activities that may effect flight safety.

QUESTION 19.What does the annotation P106/2.5 refer to when next to a shaded area on the 1:500 000 scale aeronautical chart?

A. Gliders are prohibited from landing in this area.
B. All aircraft are prohibited from entering this area below a height of 2500 ft.
C. All aircraft are prohibited from entering this area below an altitude of 2500 ft.
D. Gliders are prohibited from thermaling in this area.

QUESTION 20.What are the legal requirements required to fly a glider cross country?

A. You carry a current edition 1:250 000 scale map.
B. The glider has a serviceable radio.
C. The glider has a serviceable navigational aid.
D. You carry map(s) clearly marked with controlled and regulated airspace.

QUESTION 21.Which ground features are most useful for navigation?

A. Church spires and radio masts.
B. Villages and ponds.
C. Motorways and large towns.
D. Hills and crossroads.

QUESTION 22.Your airfield is 330 feet above mean sea level (amsl). If the airfield pressure (QFE) is 996 millibars (hectopascals), what height above the airfield is flight level 55? (Assume 1 millibar = 30 feet).

A. 4980 feet.
B. 6010 feet.
C. 5450 feet.
D. 5500 feet.

QUESTION 23.Which of the following is correct for maintaining VMC in class D airspace whilst above 3000ft amsl but below FL100?

A. The glider must remain clear of cloud and in sight of the surface.
B. The glider must remain 1500 metres horizontally and 1000 ft vertically away from cloud in a flight visibility of 5Km or greater.
C. The flight visibility must be 5 Km or greater.
D. The glider must remain clear of cloud only.

QUESTION 24.What is the approximation when using a 1:500 000 scale chart?

A. 12 statute miles or 10 nautical miles to the inch.
B. 10 statute miles or 8.5 nautical miles to the inch.
C. 8 statute miles or 7 nautical miles to the inch.
D. 4 statute miles or 3.5 nautical miles to the inch.

QUESTION 25.How often are TNW information bulletins published?

A. As necessary.
B. Twice annually.
C. Fortnightly.
D. Twice weekly.

QUESTION 26.What does the annotation R14/2.5 refer to when next to an area bounded by a solid red line on a 1:500 000 scale aeronautical chart?

A. Entry is restricted to this area below 2500 ft AMSL.
B. Entry is restricted to this area below 2500 ft AGL.
C. This is an area of high intensity radio transmissions and may be ignored for the purposes of gliding.
D. This is a royal residence and there for must be avoided.

QUESTION 27.What does the annotation *D130/1 refer to when next to an area bounded by a solid red line on a 1:500 000 scale aeronautical chart.

A. The danger area is prohibited to all types of aviator below 1000ft.
B. Entry is prohibited to this danger area during the NOTAM'd period of the activity.
C. It is a danger area activated by NOTAM.
D. It is a danger area you should pass through expeditiously.

QUESTION 28.What is the relevance of a purple airway to gliding?

A. There is no relevance to gliders.
B. The airway is for information only on royal flights.
C. The airway marks prohibited airspace during a royal flight.
D. The airway marks restricted airspace dairying a royal flight.

QUESTION 29.What do isogonal lines indicate on aeronautical charts?

A. They are a line joining places of equal temperature.
B. They are a line joining places of equal magnetic variation.
C. They are a line joining places of equal pressure.
D. They are a line joining places of equal altitude.

QUESTION 30.On a 40 nm final glide at 50 Kts indicated airspeed you notice there is a 10 Kt tail wind. How long will the last 20 nms take?

A. 15 minutes.
B. 20 minutes.
C. 25 minutes.
D. 30 minutes.

QUESTION 31.What will be the effect of a steel object being placed close to an aircraft compass?

A. The compass will seem sluggish.
B. The compass variation will be effected.
C. The compass deviation will be effected.
D. There will be little or no effect on a modern compass.

QUESTION 32.With 15 nm to go and a glide angle of 30:1 at 60 Kts, what height is required to arrive at the goal with 1000 ft to spare?

A. 3000 ft.
B. 2500 ft.
C. 5000 ft.
D. 4000 ft.

QUESTION 33.What it your estimated heading on a long final glide where the track is 050 degrees and there is a cross wind of 15 Kts from the right.

A. 050 degrees.
B. More than 050 degrees.
C. Less than 050 degrees.
D. Not possible to predict.

QUESTION 34.Assuming nil wind, after the first leg of a 200 Km flight you notice that your average speed is 50 Kph. If conditions remain the same, approximately how long will the flight take?

A. 2 hours.
B. 3 hours.
C. 3 hours 30 mins.
D. 4 hours.

QUESTION 35.How can the magnetic variation be determined for any given point?

A. Look it up in the UK Air Pilot.
B. Check in Laws and Rules for glider pilots.
C. Check the latest edition of TNW's.
D. Check on a 1:500 000 scale aeronautical chart where the magnetic variation is shown at 1 degree intervals.

QUESTION 36.While on a task in the UK you notice the compass appears to be a bit erratic. The time is 1300 UTC and the desired track is 090 degrees. Where should the sun be?

A. Ahead.
B. On the right.
C. On the left.
D. Behind.

QUESTION 37.Your cross country track takes you through a MATZ. What should your actions be?

A. Fly through the MATZ but be aware of the ATZ and possible traffic on extended centre lines.
B. Call the controlling authority and ask for permission to penetrate the MATZ.
C. Put in a 'dog leg' to avoid the MATZ.
D. Remain VMC whilst in the MATZ.

QUESTION 38.The airfield from which you are flying is 600 ft AMSL. With the altimeter set to zero before flight, the subscale reads 1007 millibars. What will the altimeter read at the base of an airway extending from FL 45 upwards. (Assume 30 ft per millibar).

A. 4320 feet.
B. 4680 feet.
C. 3900 feet.
D. 4500 feet.

QUESTION 39.Each individual entry in TNW's has a 4 digit code as part of the prefix. What does this code relate to?

A. The CAA serial number.
B. The Ordinance Survey grid reference.
C. The most northerly co-ordinate or latitude.
D. The nearest identifying feature as a latitude and longitude.

QUESTION 40.What is the purpose of a compass card in a glider?

A. To take into account the errors present after the compass has been swung.
B. To act as a reminder of bearings versus cardinal headings.
C. To act as a reminder of task leg directions when flying cross country.
D. To take into account any errors due to wind drift.

QUESTION 41.The first leg of an out and return cross country flight is 135 degrees true. Magnetic variation is 5 degrees west. What will the reciprocal heading be?

A. 320 Magnetic.
B. 330 Magnetic.
C. 335 Magnetic.
D. 320 True.

QUESTION 42.The forecast wind is 230/10. You are on a 50km flight where the desired track is 078 degrees true. What effect will the wind have on the glider?

A. Drift to left of track with low ground speed.
B. Drift to right of track with low ground speed.
C. Drift to left of track with high ground speed.
D. Drift to right of track with high ground speed.

PRINCIPLES OF FLIGHT.

QUESTION 1. When is total drag at a minimum?

A. At the stall.
B. At best glide (best L/D) for still air.
C. When lift dependant drag is equal to zero lift drag.
D. At minimum sink.

QUESTION 2. What will be the reading on the ASI if the Dynamic source of the ASI is blocked?

A. It will over read.
B. It will under read.
C. It will not respond.
D. It will read normally.

QUESTION 3. What is meant by the aspect ratio of a glider?

A. The ratio of wing span to mean chord.
B. The ratio of wing span to surface area.
C. The ratio of weight to wing area.
D. The ratio of total lift to weight.

QUESTION 4. Which two quantities are required to be present for a glider to spin?

A. Roll and yaw.
B. High angle of attack and yaw.
C. Nose high attitude and yaw.
D. High angle of attack and roll.

QUESTION 5. Below what maximum speed is it safe to use full deflection of any one control, regardless of the situation?

A. Vd. Maximum dive speed, by design.
B. Vne. Velocity never exceed.
C. Vb. Maximum rough air speed (design gust speed).
D. Va. Design manoeuvring speed.

QUESTION 6. What is the purpose of the gliders fin?

A. To provide a stable platform for the rudder to be mounted upon.
B. To provide directional stability.
C. To provide lateral stability.
D. To provide longitudinal stability.

QUESTION 7. On a silver duration flight, soarable conditions stop after four and a half hours. You are at 5000 ft. What is the best speed to fly in order to complete the flight?

A. Minimum sink.
B. Best glide (best L/D).
C. Just above the stall.
D. It is irrelevant, as the weather will cause the flight to be terminated early.

QUESTION 8. With regard to any glider, what is the standard spin recovery for minimum height loss?

A. Stick forward, full opposite rudder, centralise the rudder when the spinning stops and recover from the dive.
B. Full opposite rudder, with ailerons neutral move stick progressively forward until the spinning stops, centralise the rudder and recover from the dive.
C. Let go the controls as the aircraft will exit the spin on its own.
D. Full opposite rudder, stick centrally forward until the spinning stops and recover from the dive.

QUESTION 9. While maintaining the normal gliding attitude you notice that the air speed indicator is reading low and erratic. What is the most likely cause?

A. Water in the static system.
B. Water in the Pitot system.
C. Ice in the static system.
D. Ice in the Pitot system.

QUESTION 10.‘Wash out’ is a term used to describe a particular design feature of a glider. What does it describe?

A. A twist in the wing, such that the inboard part of the wing stalls before the outboard, hence preventing wing drop at the stall.
B. The angle that the top and bottom surfaces make at the trailing edge, thus reducing induced drag.
C. The amount of airflow deflected over the ailerons due to the air brakes being open.
D. The angle that the wings sweep forward from the root to tip, as in the ASK 13.

QUESTION 11.What is the approximate distribution of production of lift on a glider wing?

A. 50% from above and 50% from below.
B. 60% from above and 40% from below.
C. 70% from above and 30% from below.
D. 90% from above and 10% from below.

QUESTION 12.What happens to induced drag as airspeed is increased from the stall towards Vne?

A. Induced drag increases approximately as the square of the IAS.
B. Induced drag reduces towards best L/D then increases again.
C. Induced drag remains constant.
D. Induced drag reduces inversely as the square of the IAS.

QUESTION 13.Three forces act on a glider in flight. Which force, or part of a force, causes a glider to turn?

A. Unequal amounts of lift from the wings only results in the turn.
B. Part of total lift acting in the direction of the turn.
C. Unequal amounts of lift combined with induced drag result in the turn.
D. Part of total lift combined with induced drag result in the turn.

QUESTION 14.What is the importance of indicated airspeed (IAS) and true airspeed (TAS), when flying at altitude?

A. IAS is always less than TAS and the ASI under reads the true airspeed.
B. TAS is always less than IAS and the ASI under reads the true airspeed.
C. IAS is always less than TAS and the ASI over reads the true airspeed.
D. TAS is always less than IAS and the ASI over reads the true airspeed.

QUESTION 15.If the 1 ‘g’ stalling speed is 34 knots, what will be the stalling speed in a steep turn with the accelerometer reading 4 ‘g’?

A. 34 knots.
B. 51 knots.
C. 57 knots.
D. 68 knots.

QUESTION 16.Which of the following is the most correct with regards to the amount of lift being produced by a wing as the angle of attack is increased from 0 degrees?

A. It increases with respect to increasing angle of attack.
B. It increases with respect to increasing angle of attack, then remains constant above the stalling angle.
C. It increases until the stalling angle, then reduces rapidly towards zero.
D. It remains the same until the stalling angle, then reduces rapidly towards zero.

QUESTION 17.What is the aerodynamic purpose of the gliders tailplane?

A. To provide a stable platform for the elevator to be mounted upon.
B. To provide directional stability.
C. To provide lateral stability.
D. To provide longitudinal stability.

QUESTION 18.What effect do air brakes have on a glider?

A. Increase drag only.
B. Reduce lift only.
C. Increase stability, reduce lift and increase drag.
D. Reduce airspeed.

QUESTION 19.What is the definition of a Mean Camber line?

A. A line joining the centres of curvature between the Leading and Trailing edges and equidistant from the upper and lower surfaces.
B. The distance between the Leading and Trailing edges.
C. A straight line joining the Leading and Trailing edges.
D. The path traced by particles in steady flow.

QUESTION 20.What happens to the amounts of lift and drag being produced by the left wing when the control column is moved to the left?

A. Less lift and less drag.
B. Less lift and more drag.
C. More lift and less drag.
D. More lift and more drag.

QUESTION 21.How does a change of weight affect the stalling speed of a glider?

A. The stall speed only changes if the weight alters the C of G position.
B. There is no change to the 1‘g’ stalling speed.
C. The stall speed increases with increasing weight.
D. The stall speed increases with reducing weight.

QUESTION 22.Vne is calculated by taking the maximum design dive speed (Vd), and multiplying it by 0.9. Is it therefore safe to exceed Vne, and if so, why?

A. Yes, there should be no risk up to Vd.
B. Yes, but this is normally only done during test flights.
C. Yes, but only to 0.95 Vd as this is as fast as the test pilot proves the glider.
D. No, Vne means Velocity never exceed.

QUESTION 23.What happens to the centre of gravity and glider stability if the cockpit load is reduced?

A. C of G moves rearwards and longitudinal stability reduces.
B. C of G moves rearwards and longitudinal stability increases.
C. C of G moves forwards and longitudinal stability reduces.
D. C of G moves forwards and longitudinal stability increases.

QUESTION 24.What happens to profile drag as airspeed is increased from the stall towards Vne?

A. Profile drag increases approximately as the square of the IAS.
B. Profile drag reduces towards best L/D then increases again.
C. Profile drag remains constant.
D. Profile drag reduces inversely as the square of the IAS.

QUESTION 25.A glider with a glide angle of 30:1 is at 3000 feet. Assuming still air and allowing 800 feet for a circuit, how far can the glider travel before commencing a circuit to land?

A. 12.5 nautical miles.
B. 11 nautical miles.
C. 10.85 nautical miles.
D. 9 nautical miles.

QUESTION 26.In which direction does lift developed by the wing of an aircraft in flight act?

A. Perpendicular to the chord line.
B. Perpendicular to the longitudinal axis.
C. Perpendicular to the relative air flow.
D. Parallel to the normal axis.

QUESTION 27.It is vital that the weights and positions of cockpit loads are within limits. What could be affected when flying with loads outside those limits?

A. Lift coefficient.
B. Total reaction.
C. Lift dependent drag.
D. Stability.

QUESTION 28.What is the main advantage of adding water ballast to the tail of a glider?

A. To increase the over all weight.
B. The centre of gravity may be adjusted to place the trimmed elevator in the position for minimum drag.
C. Allow the glider to achieve the same glide angle at a higher speed.
D. To increase longitudinal stability and therefor increase performance.

QUESTION 29.What does the Barometric Pressure Scale enable the pilot to achieve?

A. To reset the altimeter datum.
B. To reset the ASI datum.
C. To move the needles on the ASI.
D. To reset the electric vario.

QUESTION 30.Why is the capacity flask insulated?

A. To prevent temperature changes affecting the variometer readings.
B. To prevent temperature changes affecting the ASI readings.
C. To prevent temperature changes affecting the altimeter readings.
D. To allow for acceleration errors in the compass.

QUESTION 31.In order to reduce the likelihood of wing tip stalling, a wing can be designed incorporating wash out. What does this involve?

A. The use of Frise ailerons.
B. A reduction in the angle of incidence towards the wing tip.
C. A reduction in the chord length towards the wing tip.
D. A reduction in the angle of attack towards the wing tip.

QUESTION 32.In flight when no pitch is present, the tailplane and elevator provide no pitching moment. What happens when the control column is moved forward?

A. The elevator moves down and produces lift at the tail in an upward sense thus pitching the nose down.
B. The elevator moves down and produces lift at the tail in a downward sense thus pitching the nose down.
C. The elevator moves down and reduces lift, pitching the aircraft nose down.
D. The elevator moves down and reduces lift on the wing thus pitching the nose down .

QUESTION 33.What is the purpose of wing sealing tape?

A. Helps to reduce form drag.
B. Helps to reduce interference drag.
C. Helps to reduce surface friction.
D. Helps prevent the inboard from stalling before the tip.

QUESTION 34.What happens to total drag as airspeed is increased from the stall towards Vne?

A. Total drag increases approximately as the square of the IAS.
B. Total drag reduces towards best L/D then increases again.
C. Total drag remains constant.
D. Total drag reduces inversely as the square of the IAS.

QUESTION 35.The airspeed indicator has a yellow band. What does the start of the yellow band indicate?

A. The maximum manoeuvring speed, above which inputs of more than control deflection of any one control must not be used.
B. The maximum manoeuvring speed, above which inputs of more than 1/3 control deflection of any one control must not be used.
C. The minimum speed to use full control deflections.
D. The minimum approach speed in strong winds.

QUESTION 36.What happens to the stalling speed in a turn?

A. The stalling speed increases in the turn due to a component of total lift now acting in the direction of the turn..
B. The stalling speed increases in the turn due to the extra speed required to make the turn.
C. The stalling speed remains the same as long as the load remains at 1'g'.
D. The stalling speed increases in the turn due to extra drag from maneouvering.

QUESTION 37.Why is there a relationship between flap movement and pitch?

A. Flaps down and glider will pitch nose up due to increased drag.
B. Flaps down and glider will pitch nose down due to centre of pressure moving rearwards.
C. Flaps down and glider will pitch nose up due to centre of pressure moving forwards.
D. Flaps down and glider will pitch nose down due to increased drag.

QUESTION 38.What is meant by the term 'angle of attack'?

A. The angle at which the wings are fixed onto the glider.
B. The angle at which the airflow meets the leading edge.
C. The angle between the wing and the relative airflow.
D. The angle between the chord line and the relative airflow.

QUESTION 39.What are the two main types of airflow over a wing?

A. Smooth and laminar.
B. Smooth and rough.
C. Laminar and turbulent.
D. Smooth and turbulated.

QUESTION 40.What causes adverse yaw or aileron drag?

A. An increase in lift dependent drag on the up going wing.
B. An increase in profile drag on the up going wing.
C. A decrease in profile drag on the down going wing.
D. Too coarse an application of aileron.

QUESTION 41.What is the definition of a Chord Line?

A. A line joining the centres of curvature between the Leading and Trailing edges and equidistant from the upper and lower surfaces.
B. The distance between the Leading and Trailing edges.
C. A straight line joining the Leading and Trailing edges.
D. The path traced by particles in a steady flow.

QUESTION 42.What is the purpose of a gliders dihedral?

A. To help reduce aileron drag.
B. To help increase directional stability.
C. To help increase lateral stability.
D. To help increase longitudinal stability.

QUESTION 43.How is the Aspect Ratio of a wing calculated?

A. Multiplying span by chord.
B. Dividing span by chord.
C. Dividing wing area by span.
D. Dividing chord by wing loading.

QUESTION 44.What does stagnation point refer to?

A. The point on a wing where laminar flow becomes turbulent flow.
B. The point on a wing leading edge where air is brought to rest.
C. The area behind the wing where turbulent flow becomes streamlined.
D. The layer of air next to the wings surface.

QUESTION 45.What is the definition of Centre of Pressure?

A. The point on a wing where the aircraft should be weighed.
B. The point on a wings leading edge where air is brought to rest.
C. The point on a wing where laminar flow becomes turbulent flow.
D. The point on the chord line through which total reaction acts.

QUESTION 46.Streamlining a flat plate section reduces which type of drag?

A. Surface friction drag.
B. Vortex drag.
C. Lift dependent drag.
D. Form drag.

QUESTION 47.Airflow meeting at the junctions of wing and fuselage create which type of drag?

A. Interference drag.
B. Interactive drag.
C. Surface friction.
D. Vortex drag.

QUESTION 48.The ASI on Gliders is colour coded. What does the Green Arc represent?

A. From Stalling speed to Minimum Manoeuvring speed.
B. From Minimum sink to Maximum Manoeuvring speed.
C. From 1.1 times Stalling speed to Maximum Manoeuvring speed.
D. From 1.1 times Stalling speed to Minimum Manoeuvring speed.

QUESTION 49.What is the layer of air next to a surface of an aircraft in flight called?

A. Stagnation layer.
B. Boundary layer.
C. Surface layer.
D. Drag layer.

QUESTION 50.A small frontal area will reduce which type of drag?

A. Vortex drag.
B. Lift dependent drag.
C. Surface friction.
D. Form drag.

QUESTION 51.Which of the following is the best combination to reduce Vortex drag?

A. High aspect ratio/high speed/high all up weight.
B. High aspect ratio/low speed/high all up weight.
C. High aspect ratio/high speed/low all up weight.
D. Low aspect ratio/low speed/high all up weight.

QUESTION 52.What is the primary purpose of flaps?

A. To improve glide ratio over a wider range of airspeeds.
B. To make take off and landing easier by improving forward visibility.
C. To reduce the stalling speed.
D. To reduce airspeed.

QUESTION 53.What will be the effect on a gliders induced drag if water ballast is added to the wings?

A. There will be no change.
B. It will reduce, as the glider has to fly faster to achieve the same glide angle.
C. It will reduce, as the glider may now fly at a reduced AoA.
D. It will increase due to the greater lift required to equal the increase in weight.

QUESTION 54.As angle of attack increases, what direction will the Centre of pressure move?

A. Forward until the stalling angle, then rapidly further forward.
B. Rearward until the stalling angle, then slowly forward.
C. Forward until the stalling angle, then remains constant.
D. Forward until the stalling angle, then rapidly back.

QUESTION 55.What is the centre of pressure?

A. It is the same point as the centre of gravity.
B. The point on the fuselage through which the force of lift is said to act.
C. The point on the chord line where the average lift strength may be found.
D. The point on the chord line through which the force of lift is said to act.

QUESTION 56.What happens to the centre of pressure as the AoA is increased from zero degrees?

A. It moves forward until the stall, then moves rapidly rearwards.
B. It moves slowly forward then stagnates at the stall.
C. It increases in intensity until the stall then reduces again.
D. It move slowly rearwards until the stall then moves rapidly forward.

QUESTION 57.When using flaps, what is the basic rule when making significant changes in speed whilst flying cross country?

A. Increase speed with flaps then stick, reduce speed with stick then flaps.
B. Increase speed with flaps then stick, reduce speed with flaps then stick.
C. Increase speed with stick then flaps, reduce speed with flaps then stick.
D. Increase speed with stick then flaps, reduce speed with stick then flaps.

QUESTION 58.In which direction does the resultant line of all drag forces acting on an aircraft in flight act?

A. Parallel to the longitudinal axis.
B. Parallel to the chord line.
C. Parallel to the relative airflow.
D. Horizontal and opposite to the direction of flight.

QUESTION 59.What is the first action as part of the standard stall recovery?

A. Control column neutral.
B. Control column forward.
C. Control column centrally neutral.
D. Control column centrally forward.

QUESTION 60.Recovery from autorotation can be effected by which immediate action?

A. Reduction in angle of attack.
B. Levelling of the wings.
C. Application of opposite rudder.
D. Neutralising the ailerons.

QUESTION 61.Which of the following is correct when refering to an aircraft's 3 axis?

A. They are fixed relative to the airflow.
B. The are independent of the aircraft's attitude.
C. They are fixed relative to the aircraft irrespective of attitude.
D. They are fixed relative to the horizon irrespective of attitude.

QUESTION 62.From which source does the Variometer takes static pressure in order to compensate for changes in airspeed?

A. The Irving tube.
B. The Pitot head.
C. Static Vents.
D. The Brunswick tube.

QUESTION 63.What causes induced drag?

A. Wing tip vortices.
B. The frontal area resisting the airflow.
C. The generation of lift, leading to chord and span wise airflow, trailing edge and wing tip vortices.
D. Rough surfaces on the glider.

QUESTION 64.Which type of drag is reduced by polishing?

A. Lift dependent drag.
B. Surface friction.
C. Interference drag.
D. Form drag.

QUESTION 65.What will happen to the Altimeter if the Static source is blocked?

A. It will over read.
B. It will under read.
C. It will read normally.
D. It will not respond.

QUESTION 66.What is the main advantage of adding water ballast to the wings of a glider?

A. Lateral stability is increased.
B. Due to increased weight, the glider can fly faster achieving the same performance.
C. The gliders performance is increased.
D. The glider may now alter its performance by jettisoning the ballast.

QUESTION 67.What happens to lift and drag when flaps are moved from a cruise setting to a thermalling setting?

A. Lift reduces and drag reduces.
B. Lift reduces and drag increases.
C. Lift increases and drag reduces.
D. Lift increases and drag increases.

QUESTION 68.When a glider is on the ground, what is the pressure in the capacity flask equal to?

A. Zero.
B. Static pressure.
C. Static and dynamic pressure.
D. Dynamic pressure.

QUESTION 69.In the Northern Hemisphere, when will a magnetic compass change its reading without the aircraft changing its heading?

A. The aircraft is flying North or South and changes direction.
B. The aircraft is flying East or West and is yawed.
C. The aircraft is heading North or South and accelerates or decelerates.
D. The aircraft is heading East or West and accelerates or decelerates.

QUESTION 70.In the Northern Hemisphere, if the aircraft is in a constant rate turn, when will the greatest effect on the magnetic compass be seen?

A. East / West headings.
B. North / South headings.
C. All headings as there is no effect.
D. All headings as there is a constant effect.

QUESTION 71.Which method of reducing dip error in the magnetic compass is the correct one?

A. Increase the strength of the magnets.
B. Reduce the strength of the magnets.
C. Suspend the magnets below the needle.
D. Suspend the needle below the magnets.

QUESTION 72.Which of the following is correct when turning onto north in the northern hemisphere?

A. Roll out of the turn about 25° - 30° before the compass reads north.
B. Roll out of the turn about 25° - 30° after the compass reads north.
C. Roll out of the turn when the compass reads north.
D. Roll out or the turn about 45° - 50° after the compass reads north.

QUESTION 73.If the battery source powering the turn indicator becomes discharged and the rotor speed is reduced, what will be the effect on the indicator readings?

A. A lower angle of bank is indicated than the aircraft is flying.
B. A higher rate of turn will be indicated on the instrument than is actually achieved.
C. A lower rate of turn will be indicated on the instrument than is actually achieved.
D. It is difficult for the pilot to see any effect.

QUESTION 74.What is the principle of the gyroscope in the turn indicator?

A. If a turning force is applied to the gyro, the resultant movement will be 90° from the initial force and in the direction of rotation.
B. If a turning force is applied to the gyro, the resultant movement will be 180° from the initial force and in the direction of rotation.
C. If a turning force is applied to the gyro, the resultant movement will be 90° from the initial force and in the opposite direction of rotation.
D. If a turning force is applied to the gyro, the resultant movement will be 180° from the initial force and in the opposite direction of rotation.

QUESTION 75.What does the term Total Reaction mean?

A. The resultant of all Aerodynamic Forces acting on an aerofoil.
B. The resultant of all Drag Forces acting on an aerofoil.
C. The resultant of all Lift Forces acting on an aerofoil.
D. The result of a Weight and Balance calculation.

QUESTION 76.What is the point called at which laminar flow becomes turbulent?

A. Transition point.
B. Stagnation point.
C. Separation point.
D. Boundary point.

QUESTION 77.As angle of attack increases, what happens to the Centre of pressure?

A. Forward until the stalling angle, then rapidly further forward.
B. Rearward until the stalling angle, then slowly forward.
C. Forward until the stalling angle, then remains constant.
D. Forward until the stalling angle, then rapidly back.

QUESTION 78.The centre of pressure is the point through which the total reaction is said to act. At normal angles of attack, where does it lie?

A. Forward of the centre of gravity.
B. One third of the chord aft of the leading edge.
C. Aft of the centre of gravity.
D. Aft of the normal axis.

QUESTION 79.How can the effect of aileron drag can be reduced?

A. Fitting Fowler ailerons.
B. Fitting Differential ailerons.
C. Fitting Independent ailerons.
D. Introducing Wash in.

QUESTION 80.What will be the effect on an altimeter, when flying from a high pressure region to a low pressure region?

A. There will be no effect.
B. The altimeter will under read the true height, if left on the original pressure setting.
C. The altimeter will over read the true height, if left on the original pressure setting.
D. The effect cannot be determined unless the pressure setting is corrected.

QUESTION 81.Ice forms over the pitot head during a wave flight. What indications will there be that this has occurred?

A. The indicated airspeed will remain constant as the pressure in the pitot can no longer change.
B. The indicated airspeed will rapidly reduce to zero.
C. The indicated airspeed will remain constant but fluctuate slightly as the static vents are still unblocked.
D. The indicated airspeed will slowly reduce to zero.

QUESTION 82.Since pressure decreases with height, what is the effect on glider instruments above 10,000 feet?

A. Little or no effect on the altimeter, however, the airspeed indicator will under read the true airspeed.
B. Little or no effect on the altimeter, however, the airspeed indicator will over read the true airspeed.
C. The altimeter will grossly over read, and the airspeed indicator will under read the true airspeed.
D. The altimeter will grossly over read, and the airspeed indicator will over read the true airspeed.

QUESTION 83.The static source of the ASI is blocked during descent. What will the instrument read?

A. Over read.
B. Under read.
C. Read normally.
D. Fail to operate.

QUESTION 84.The ASI is colour coded on most gliders. What does the yellow arc represent?

A. Maximum Manoeuvring speed to VNE.
B. Minimum Manoeuvring speed to Stalling speed.
C. Stalling speed to Maximum Manoeuvring speed.
D. Minimum Manoeuvring speed to VNE.

QUESTION 85.The Pitot source is blocked on the Altimeter. What will the instrument read?

A. Over read.
B. Under read.
C. Read normally.
D. Fail to operate.

QUESTION 86.What does the variometer measure?

A. Rising air currents.
B. Rate of change of pressure.
C. Lift.
D. Height change.

QUESTION 87.What does the Barometric Pressure Scale enable the pilot to do?

A. To reset the altimeter datum.
B. To reset the ASI datum.
C. To move the needles on the ASI.
D. To reset the electric vario.

RADIO TELEPHONY.

QUESTION 1. The frequency 130.4 MHZ is allocated for what purpose?

A. Competition only.
B. Ground to ground only.
C. Training purposes only.
D. Cloud flying and related cross country messages only.

QUESTION 2. What are the requirements with which you must comply to operate a radio in a glider where only the gliding frequencies are available?

A. A licence for the radio and an RT licence for the pilot.
B. A licence for the radio only.
C. An RT licence for the pilot only.
D. A citizens band radio licence.

QUESTION 3. What are the requirements for a glider pilot to transmit in the aeronautical VHF band?

A. A radio operators licence is required if any frequencies other than BGA gliding frequencies are available on the radio.
B. No radio operators licence required regardless of frequency used.
C. No radio operators licence required regardless of frequency used, so long as the set complies with the CAA regulations.
D. A radio operators licence is required regardless of frequency used.

QUESTION 4. A radio installed in a motor vehicle for the purpose of communication with gliders must have a Radio communications licence. To whom do you apply for this licence?

A. The Civil Aviation Authority.
B. National Air Traffic Service.
C. The Post Office.
D. The Radio Communications Agency.

QUESTION 5. What is the purpose of a ‘blind transmission’?

A. To pass information to a station you believe can hear you although you cannot hear them.
B. To pass information when flying ‘blind’ in cloud.
C. To pass information on a frequency in the hope that the intended recipient will get the message.
D. To pass information when no reply is required.

QUESTION 6. When operating in class ‘B’ airspace, at what flight levels do you call entering and leaving the ‘Gliding area’?

A. Establish contact at FL 200 in the climb and call entering at FL245. No call required when leaving.
B. Establish contact at FL 200 in the climb and call leaving at FL 245 in the descent.
C. Establish contact at FL 245 in the climb and call leaving at FL 200 in the descent.
D. Establish contact at FL 245 in the climb and call leaving at FL 245 in the descent.

QUESTION 7. Which of the following is correct for a gliders initial transmission to a ground station? (Glider call sign = Alpha Charlie Zulu. Ground station = Bicester base)

A. Alpha Charlie Zulu to Bicester base.
B. Bicester base this is Alpha Charlie Zulu.
C. Bicester this is Charlie Zulu.
D. Alpha Charlie Zulu calling Bicester.

QUESTION 8. Before entering cloud, the pilot of a glider should make a general announcement of height and position. Which frequency should be used?

A. 130.125 MHZ or 130.4 MHZ which ever is available.
B. 121.5 MHZ .
C. 129.9 MHZ .
D. 130.4 MHZ.

QUESTION 9. Which of the following frequencies is shared with other non gliding users?

A. 129.975 MHZ .
B. 130.125 MHZ .
C. 129.9 MHZ .
D. 130.1 MHZ .

QUESTION 10.Which of the following frequencies is solely for gliding use?

A. 129.9 MHZ .
B. 130.125 MHZ .
C. 121.5 MHZ .
D. 131.4 MHZ .

QUESTION 11.A glider radio must meet certain standards. Which of the following is a true statement?

A. A glider radio must be of a design registered with the BGA.
B. A glider radio must be of a design registered with the CAA.
C. A glider radio must meet only electrical safety standards.
D. A glider radio must comply with CAA specifications.

QUESTION 12.Which of the following is a ground to ground frequency only?

A. 129.975 MHZ.
B. 130.125 MHZ.
C. 129.9 MHZ.
D. 130.4 MHZ.

QUESTION 13.Competition gliding relies heavily on the use of radio. What are the frequencies allocated to competitions?

A. Primary 130.1 MHZ and secondary 130.125 MHZ.
B. Primary 130.1 MHZ and secondary 129.9 MHZ.
C. Primary 130.125 MHZ and secondary 130.4 MHZ.
D. Primary 130.4 MHZ and secondary 129.975 MHZ.

QUESTION 14.Which frequency is allocated for the purpose of lead and follow training?

A. 129.975 MHZ.
B. 130.1 MHZ.
C. 130.4 MHZ.
D. 130.125 MHZ.

QUESTION 15.What is the main use of the frequency 129.975 MHZ?

A. Control purposes with in 10 NM radius and up to 3000' at approved sites only.
B. Control purposes with in 10 NM radius and up to 3000'.
C. Control purposes at approved sites only.
D. Control purposes with no restrictions and at all sites.

QUESTION 16.Which of the following call signs does not comply with the ICAO phonetic alphabet?

A. Bravo..... Delta.....Foxtrot.
B. Echo.....Golf.....Papa.
C. Oscar.....Quebec.....Sugar.
D. Romeo.....Tango.....Victor.

QUESTION 17.Which of the following frequencies will help with navigational assistance in the event that you become lost?

A. 130.1 MHZ.
B. 129.975 MHZ.
C. 134.3 MHZ.
D. 121.5 MHZ.

QUESTION 18.What should your actions be on hearing a distress or urgency transmission intended for a ground station?

A. Maintain radio silence.
B. Maintain radio silence, but note all the details in case you should have to relay the message.
C. Leave the frequency immediately.
D. Continue with normal transmissions.

QUESTION 19.Which of the following call signs complies with the ICAO phonetic alphabet?

A. Alpha.....Charlie.....Hotel.
B. Indigo.....Kilo.....Juliet.
C. Foxtrot.....Mark.....November.
D. Delta.....Noddy.....Uniform.

QUESTION 20.You are unfortunate enough to require urgent medical assistance after a field landing accident. Your radio has remained serviceable. Which frequency should be used to make your Mayday call?

A. That of the nearest airfield.
B. 119.0 MHZ.
C. 121.5 MHZ but in the event of no reply, any gliding frequency.
D. 129.9 MHZ.

QUESTION 21.You have made contact with a ground station to pass the details of a distress message. Which of the following should you transmit?

A. Your call sign and nature of the emergency.
B. Your intentions.
C. Your position, heading and altitude.
D. All of the above.

QUESTION 22.What are the requirements for a radio transmitting set installed in a retrieve car?

A. Need not be licenced if operated on the BGA frequencies only.
B. Need not be licenced so long as it complies with CAA regulations.
C. Must be licenced with the Civil Aviation Authority.
D. Must be licenced with the Ministry of Transport.

QUESTION 23.A station you are calling complains of poor reception. What should your actions be?

A. Keep trying until they get your message.
B. Wait and try again when lower down.
C. Wait and try again when higher up.
D. Shout into the microphone.

QUESTION 24.The following is a list of frequencies giving continuously updated meteorological reports. A 128.6MHz, B 126.6MHz, C 135.375MHz and D 125.725. What is the name given to this service?

A. Metcast UK.
B. Metservice.
C. Volmet.
D. Metfax UK.

QUESTION 25.Which of the following is a true characteristic of aeronautical VHF radio

A. Range to the ground station increases with aircraft height.
B. Volume increases with range.
C. Volume must be increased when transmitting over greater distances.
D. Multiple transmissions on the same frequency may be heard simultaneously.

QUESTION 26.Your cross country route takes you through class D airspace. Which of the following is the most true statement?

A. You may legally cross without the use of radio.
B. You may legally cross without the use of radio but are advised to call the controlling agency.
C. You must call the controlling agency and hold a current RT licence.
D. You must seek the permission of the controlling agency before entering.

QUESTION 27.While flying you note that the previously busy gliding frequency you have been monitoring is completely silent. What should your actions be?

A. Enjoy the peace and quiet.
B. Check that your transmit button is not jammed in the transmit position.
C. Conclude that you are out of range of other gliders.
D. Presume that everyone is busy due to the deteriorating weather.

QUESTION 28.Aviators use a system of 'Q' codes to speed communications. Which of the following codes denotes atmospheric pressure at aerodrome level?

A. QNE.
B. QFH.
C. QFE.
D. QDM.

QUESTION 29.Aviators use a system of 'Q' codes to speed communications. Which of the following codes denotes the sea level pressure setting on the altimeter sub-scale?

A. QFE.
B. QNH.
C. QNE.
D. QTE.

NAVIGATION part 2.

Assume through out that magnetic variation is 5 degrees west and 1mb = 30 ft. You require a pen, ruler, protractor and a copy of the ICAO 1:500 000 scale aeronautical chart ***SOUTHERN ENGLAND AND WALES.***

1. The task is an out and return from Lasham. Draw a line on your map from Lasham (N 51-11.359. W 001-01.899) to Didcot power station (N 51-37.297. W 001-15.658).

QUESTION 1. What is the out bound true track and the return magnetic track?

A. 342 T and 167 M.
B. 337 T and 162 M.
C. 347 T and 167 M.
D. 347 T and 162 M.

QUESTION 2. Just south of Didcot is an area marked P106/2.5. What rules apply to a glider when flying in the vicinity of this area?

A. The glider may fly overhead at greater than FL 2.5.
B. The glider may fly overhead at greater than 2500 ft above mean sea level.
C. The glider may fly overhead at greater than 2500 ft above ground level.
D. The glider is prohibited from overflying the area.

QUESTION 3. What is the approximate distance of each leg?

A. 32 nautical miles or 50 kilometres.
B. 32 nautical miles or 40 kilometres.
C. 27 nautical miles or 40 kilometres.
D. 27 nautical miles or 50 kilometres.

QUESTION 4. How high above the ground is the tallest part of Didcot power station?

A. 654 ft.
B. 832 ft.
C. 178 ft.
D. 1486 ft.

QUESTION 5. How will the M4 be of assistance as a navigational aid?

A. Assuming you are on track, it will help with assessing progress along track.
B. It will help with drift assessment.
C. It will confirm the right direction is being followed.
D. Assuming you are on track, it will be of limited use as a navigational feature.

QUESTION 6. Approximately half way along the first leg the chart shows an area annotated LTMA 4500' ALT +. What indication would you expect on your altimeter, assuming it was set to zero before take off, at the base of the airspace?

A. 5120 ft.
B. 4500 ft.
C. 3880 ft.
D. 3500 ft.

QUESTION 7. With the altimeter set to 618 ft before take off, how high can you climb before commencing the task?

A. 6118 ft.
B. FL 55.
C. 4882 ft.
D. 5500 ft.

QUESTION 8. Assuming the altimeter is set to the Lasham QNH, what is the lowest indicated height allowed when crossing R101/2.4?

A. 2400 ft.
B. 1780 ft.
C. 3000 ft.
D. 240 ft.

QUESTION 9. What will be the duration of the task if the average speed is 50 Kph?

A. 1 hour 30 minutes.
B. 2 hours.
C. 2 hours 30 minutes.
D. 3 hours.

QUESTION 10.If the glide ratio is 1:30, and assuming there is nil wind, what height will be needed for a 4 Nm final glide when crossing the M3 at Basingstoke to arrive at 800 ft?

A. 1350 ft above Lasham.
B. 1450 ft above Lasham.
C. 1600 ft above Lasham.
D. 1800 ft above Lasham.

NAVIGATION part 2.
Assume through out that magnetic variation is 5 degrees west and 1mb = 30ft. You require a pen, ruler, protractor and a copy of the ICAO 1:500 000 scale aeronautical chart ***NORTHERN ENGLAND AND NORTHERN IRELAND.***

1. The task is an out and return from Camphill. Draw a line on your map from Camphill (N 53-18.303. W 001-43.746) to Rufforth (N 53-57.100. W 001-11.332).

QUESTION 1. What is the out bound true track and the return magnetic track?

A. 027 T and 212 M.
B. 032 T and 212 M.
C. 027 T and 207 M.
D. 032 T and 207 M.

QUESTION 2. Just south of Rufforth is an area marked MATZ. What rules apply to a glider when flying in the vicinity of this area?

A. The glider may fly overhead at greater than FL 3.0.
B. The glider may fly within the MATZ but must not penetrate the ATZ.
C. The glider may fly overhead at greater than 3000 ft above ground level.
D. The glider is prohibited from flying within the area.

QUESTION 3. What is the approximate distance of each leg?

A. 43.3 nautical miles or 86.6 kilometres.
B. 34.3 nautical miles or 43.3 kilometres.
C. 34.3 nautical miles or 80.2 kilometres.
D. 43.3 nautical miles or 80.2 kilometres.

QUESTION 4. How high above the ground is the tallest part of the mast between Castleford and Knottingley?

A. 654 ft.
B. 684 ft.
C. 710 ft.
D 624 ft.

QUESTION 5. How will the M1 be of assistance as a navigational aid?

A. Assuming you are on track, it will help with assessing progress along track.
B. It will help with drift assessment.
C. It will confirm that the right direction is being followed.
D. Assuming you are on track, it will be of limited use as a navigational feature.

QUESTION 6. Approximately half way along the first leg the chart shows an area annotated CTA 3000' - FL85. What indication would you expect on your altimeter, assuming it was set to zero before take off, at the base of the airspace?

A. 1350 ft.
B. 2730 ft.
C. 1650 ft.
D. 3000 ft.

QUESTION 7. With the altimeter set to 1013.2 millibars before take off, how high can you climb overhead Camphill before commencing the task?

A. 6350 ft.
B. 5150 ft.
C. 5500 ft.
D. 6500 ft.

QUESTION 8. Assuming the altimeter is set to the Camphill QNH, what is the lowest indicated height allowed if crossing the Church Fenton ATZ?

A. 2029 ft.
B. 2000 ft.
C. 3000 ft.
D. 679 ft.

QUESTION 9. What will be the duration of the task if the average speed is 50 Kph?

A. 1 hour 36 minutes.
B. 3 hours 12 minutes.
C. 3 hours.
D. 3 hours 36 minutes.

QUESTION 10.If the glide ratio is 1:30, and assuming there is nil wind, what height will be needed for a 16.5 Nm final glide when crossing the M1 at Barnsley to arrive at 800 ft?

A. 3344 ft above Camphill.
B. 3200 ft above Camphill.
C. 4144 ft above Camphill.
D. 4000 ft above Camphill.

NAVIGATION part 2.
Assume through out that magnetic variation is 6 degrees west and 1mb = 30ft. You require a pen, ruler, protractor and a copy of the ICAO 1:500 000 scale aeronautical chart ***SCOTLAND, ORKNEY AND SHETLAND.***

1. The task is an out and return from Portmoak. Draw a line on your map from Portmoak (N 56-11.328. W 003-19.311) to Aboyne (N 57-04.515. W 002-50.571).

QUESTION 1. What is the out bound true track and the return magnetic track?

A. 016 T and 202 M.
B. 010 T and 196 M.
C. 022 T and 202 M.
D. 022 T and 196 M.

QUESTION 2. Just south of Dundee is an area marked MATZ. What rules apply to a glider when flying in the vicinity of this area?

A. The glider may fly overhead at greater than FL 3.0.
B. The glider may fly within the MATZ but must not penetrate the ATZ.
C. The glider may fly overhead at greater than 3000 ft above ground level.
D. The glider is prohibited from flying within the area.

QUESTION 3. What is the approximate distance of each leg?

A. 50.4 nautical miles or 95 kilometres.
B. 56.5 nautical miles or 100 kilometres.
C. 60.2 nautical miles or 110 kilometres.
D. 55.5 nautical miles or 103 kilometres.

QUESTION 4. How high above the ground is the tallest part of the mast approximately 5 nm due north of Dundee?

A. 784 ft.
B. 1811 ft.
C. 1493 ft.
D 1116 ft.

QUESTION 5. How will the river Tay be of assistance as a navigational aid?

A. Assuming you are on track, it will help with assessing progress along track.
B. It will help with drift assessment.
C. It will confirm that the right direction is being followed.
D. Assuming you are on track, it will be of limited use as a navigational feature.

QUESTION 6. At the end of the first leg the chart shows an area annotated Aberdeen CTA 3000' to FL115. What indication would you expect on your altimeter, assuming it was set to zero before take off, at the base of the airspace?

A. 2460 ft.
B. 3360 ft.
C. 2640 ft.
D. 3000 ft.

QUESTION 7. With the altimeter set to 1013.2 millibars before take off, how high can you climb before commencing the task?

A. 6350 ft.
B. 5150 ft.
C. 5500 ft.
D. 6500 ft.

QUESTION 8. Assuming the altimeter is set to the Portmoak QNH, what is the lowest indicated height allowed if crossing the Perth ATZ?

A. 2397 ft.
B. 2000 ft.
C. 3000 ft.
D. 1612 ft.

QUESTION 9. What will be the duration of the task if the average speed is 50 Kph?

A. 2 hour 4 minutes.
B. 4 hours 7 minutes.
C. 4 hours.
D. 4 hours 20 minutes.

QUESTION 10.If the glide ratio is 1:30, and assuming there is nil wind, what height will be needed for a 14 Nm final glide when passing abeam Errol to arrive at 800 ft?

A. 2840 ft above Portmoak.
B. 3844 ft above Portmoak.
C. 3640 ft above Portmoak.
D. 4000 ft above Portmoak.