

## Not for General Distribution



## ADAPT On-line Candidate Handbook

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## Introduction

Symbiotics Ltd has developed ADAPT Online as a unique assessment tool that can support various training systems. The purpose of this tool is to find out if you are right for a job and then to offer guidance to help you develop your skills to match those that are needed. Our aims are to get the best from you and make sure that you get the most out of your training.

There a number of elements that can make up the ADAPT Online package and you will be required to complete a combination of the following elements:

ADAPT Personality Questionnaire (APQ)	
Maths	
Physics	
Cognitive	
Physical Assessment Stage (FAST)	
Coordination and Control	
Flight Simulation	

Please contact the organization that has requested you complete the assessment for any further details.



## Data Protection

Symbiotics Ltd will only collect and store personnel information relating to and pertaining to you for 24 months, as requested by Symbiotics Ltd. At the end of this period Symbiotics Ltd will delete all record of you and either delete the data you supplied or will anonymise it. Either way no data in our system will be attributable to you after the retention period defined other than a copy of this introduction and your response.

The reason Symbiotics Ltd keeps data in an anonymised form is for verification purposes. Firstly, it allows Symbiotics Ltd to verify that the assessments are fair to all groups of people, and this is why we ask some questions about your background. This information is not used in the assessment but allows us to determine that the assessment is not prejudicial to a particular group of people. Secondly, it allows Symbiotics Ltd to confirm that the comparisons made within the system against the general population remain up to date.

The data you provide through the assessment process will be stored on Symbiotics Ltd secure computers located on our premises in the UK. The data will be used via determinist algorithms to provide Symbiotics Ltd with a report on how you have performed in the assessment tests

No other third party (other than if demanded by a UK court of law order) will have access to this report or the raw data you supply. Additionally, within Symbiotics Ltd only staff with a valid reason to process will have access to your data and this will be kept to a minimum number of people.

### **Updating and removal of your information**

You have the right for incorrect, out of date or misleading information relating to you to be corrected.

You should email [DataController@SymbioticsLtd.co.uk](mailto:DataController@SymbioticsLtd.co.uk) with your request and it will be actioned provided it is a legitimate request.

### **Right to be forgotten**

You have the right to "be forgotten", the right to request that we stop processing your data and the right to object to the method by which we are processing your data.

All these requests should be made to [DataController@SymbioticsLtd.co.uk](mailto:DataController@SymbioticsLtd.co.uk) who will inform Symbiotics Ltd of the request. These requests will be actioned provided a) we do not have a legal requirement to retain your data or b) Symbiotics Ltd has a contractual agreement with you that requires that we retain the data for the specified retention period.

If either of these are the case you will be notified of the reason why we cannot remove your data at this time.



## 1. Assessment: What Should I Expect?

### 1.1 Link to the ADAPT On-line Website

If you are to complete any element of the ADAPT On-line Assessment at home, you will be provided, by email, with your link to the ADAPT Website and a series of instructions that will enable you to access the ADAPT Login Screen.

### 1.2 Log In Screen

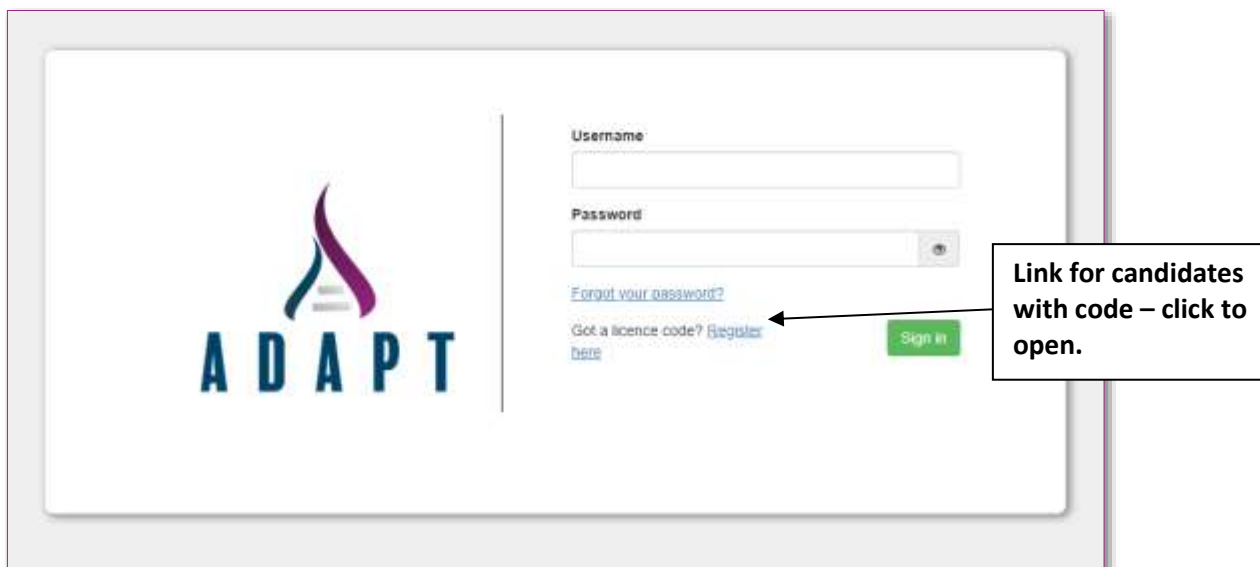
You will also be provided with a 20 digit alpha numeric licence number; this will either be provided to you directly or will be given to the Organisation to input on your behalf, depending on whether you are completing any elements at home prior to further invigilated tests. If you are provided with the code, please keep a note of this licence in case you should need to log in again.

To log in to the Assessment Tool, please click the link below or paste it into your browser:

<https://adapt2.symbioticsltd.co.uk/login>

**For PCs and laptops, we recommend you use Google Chrome to access the assessment.**

The link will take you to the below screen. Please click on the “Got a licence code? [Register here](#)” link shown in below screenshot.



**Figure 1: Adapt 2 Login Screen**

Once you enter the registration area you will be required to enter you Licence code which we recommend you copy and paste in if possible and then follow the instructions as provided on each page.

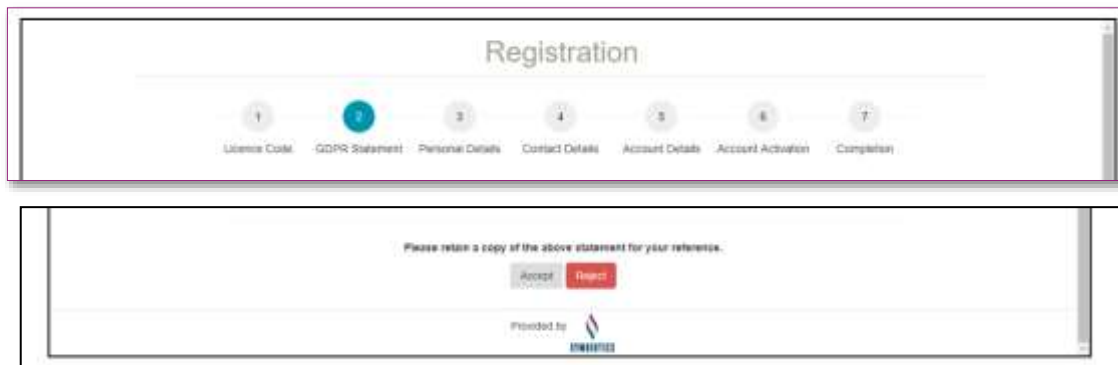
As part of the process when you enter your e-mail address you may separately be mailed with an additional activation code that you will need to enter at step 6 to confirm your acceptance of our data

protection policy or you will just be asked to confirm acceptance via a check box. If you are required to have an activation code to do this, you will require access to your e-mail to retrieve this additional code.



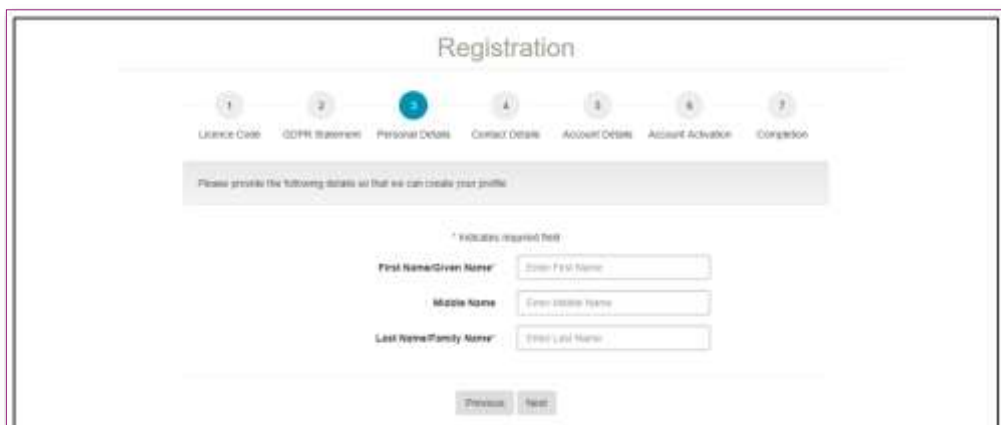
**Figure 2: Opening Online Registration Screen**

You will then proceed to a screen where you will read our General Data Protection policy and have to accept it.



**Figure 3: GDPR Acceptance**

This will follow on to you needing to enter your personal details



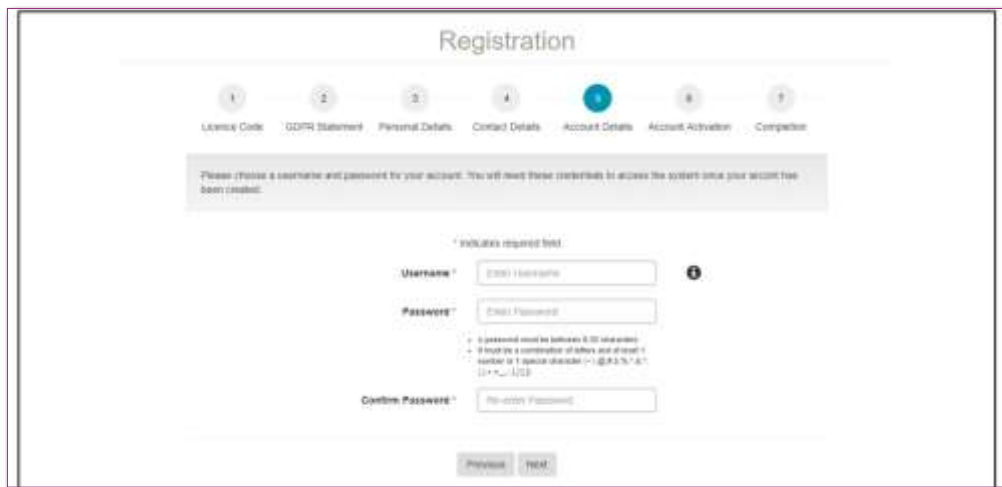
**Figure 4: Personal Details Entry**

Which will lead on to a screen for you to enter your contact details



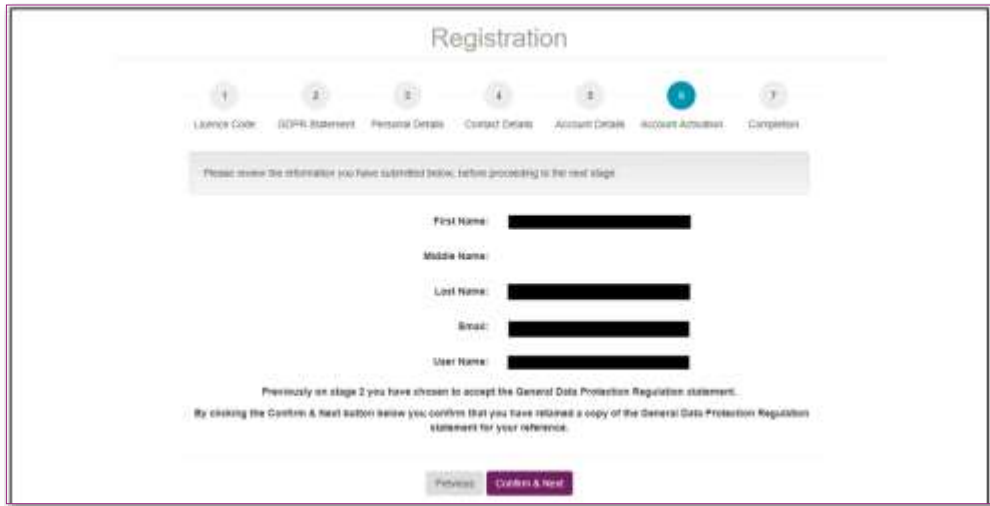
**Figure 5: Contact Details Entry**

This will lead on to a screen where you set your account login information



**Figure 6: Your Account Details Entry**

Then on to the account activation screen



**Figure 7: Activation of Your Account**

When you have completed all details click 'Submit' to continue.



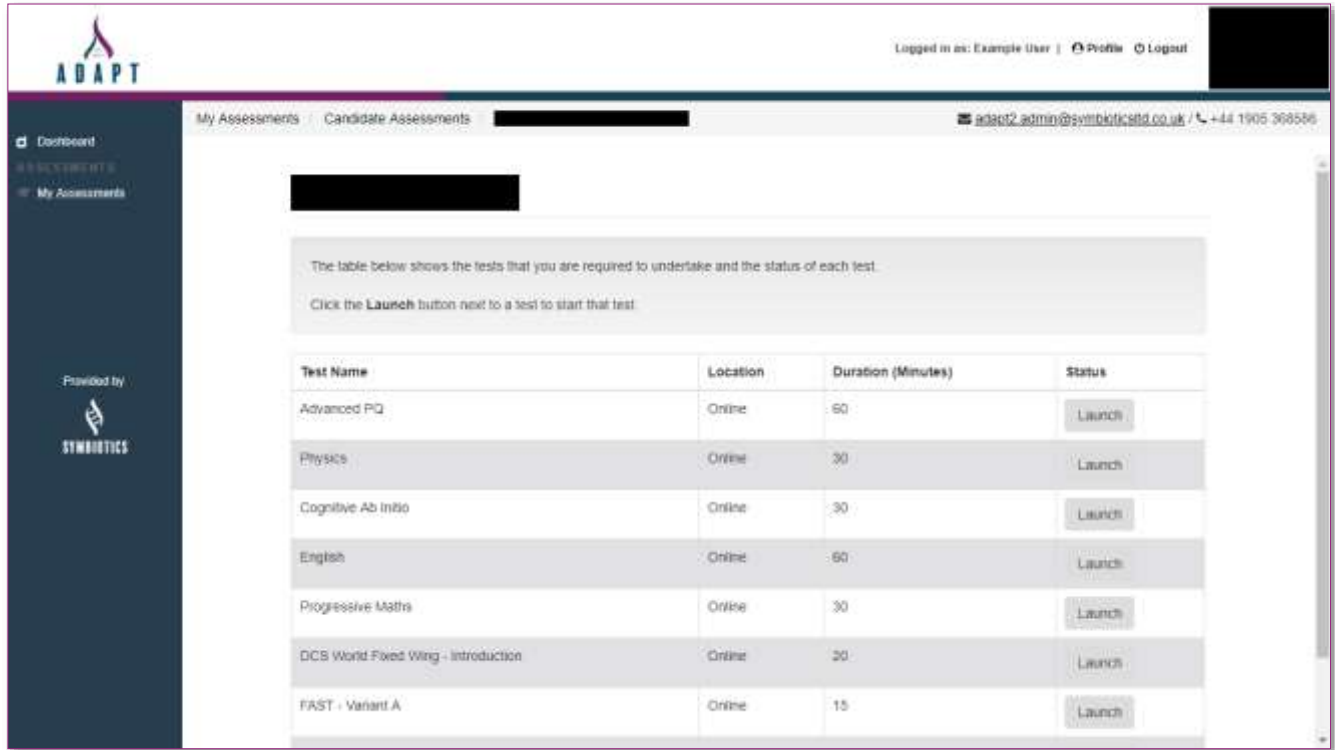
**Figure 8: Registration Completion**

A candidate assessment menu will appear.



**Figure 9: Candidate Assessments Menu**

The tests that you have been allocated will load. Click 'Launch' to receive the instructions for your first test.



The screenshot shows the ADAPT Candidate Assessments Menu. The page header includes the ADAPT logo, the user's name (Example User), and a Logout button. The breadcrumb trail shows 'My Assessments' > 'Candidate Assessments'. The main content area contains a table of allocated tests with columns for Test Name, Location, Duration (Minutes), and Status. Each row has a 'Launch' button next to it.

Test Name	Location	Duration (Minutes)	Status
Advanced PQ	Online	60	Launch
Physics	Online	30	Launch
Cognitive Ab Intro	Online	30	Launch
English	Online	60	Launch
Progressive Maths	Online	30	Launch
DCS World Fixed Wing - Introduction	Online	30	Launch
FAST - Variant A	Online	15	Launch

**Figure 10: List of Allocated Tests**

## 2. ADAPT Personality Questionnaire (APQ)

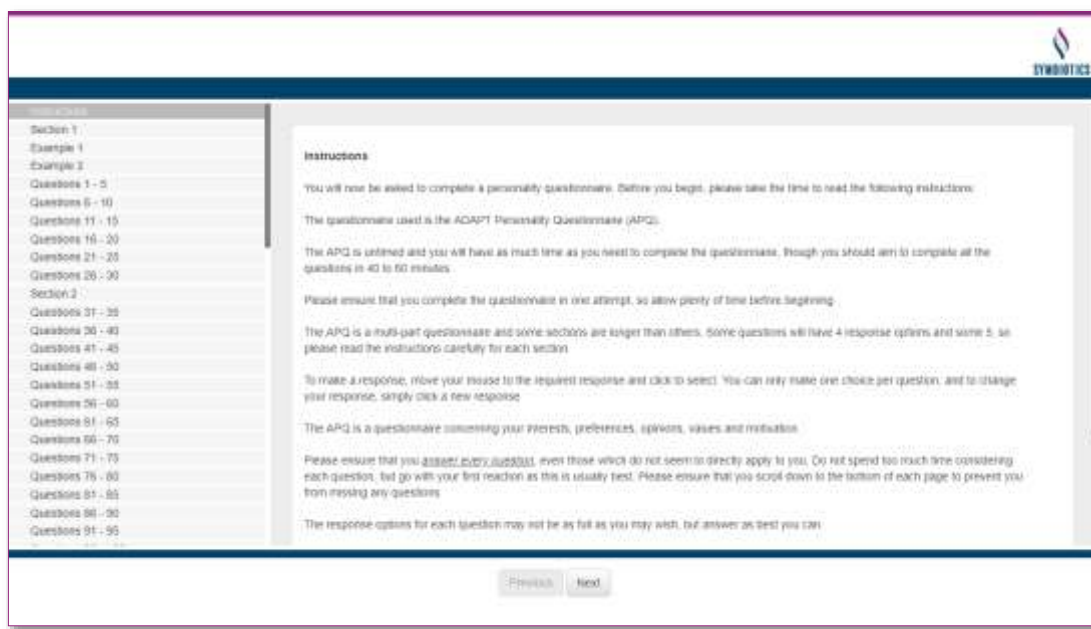
### 2.1 Instructions

There is 1 personality questionnaire that must be completed – the ADAPT Personality Questionnaire (APQ). This looks at your personality, values, behaviour and attitude. The questionnaire can either be completed at the test centre, or before/after you attend the test centre. If you are not at the assessment centre you should do the APQ in a comfortable, quiet area with no distractions or interruptions. This stage has no time limit, but you should try to finish within 40-60 minutes, in 1 attempt.



**Figure 11: Conditions of use**

A declaration is presented at the beginning of every test. Upon reading the conditions of use, click ‘start test’ to progress.



**Figure 12: APQ Instruction Screen**

The questionnaire is split in to 11 sections. The questions will change in length and there are 3 different question types, all of which have 4 multiple choice options:

2.1.1 Question Type 1

Read the question carefully and decide which of the two options most closely describes your opinion or preference - i.e. which option is 'more like me'. Then select the option that most accurately describes how strong this preference is - a moderate preference or a strong preference.



**Figure 13: APQ Question Type 1**

2.1.2 Question Type 2

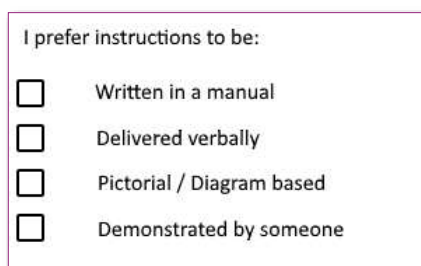
Read the question carefully and then select the option that most accurately describes your opinion or preference – strongly agree, agree, disagree or strongly disagree:



**Figure 14: APQ Question Type 2**

2.1.3 Question Type 3

Read the question carefully and then select the one option that most accurately describes your opinion or preference:



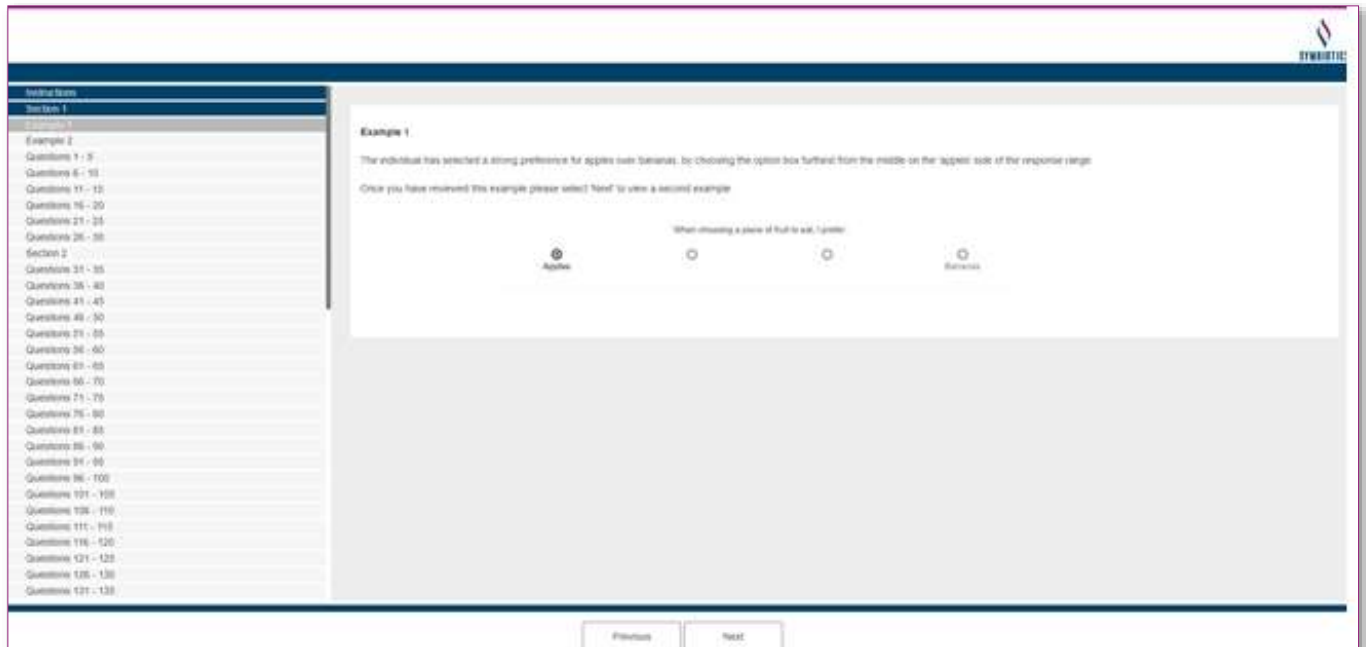
**Figure 15: APQ Question Type 3**

You will answer questions on a range of topics, including your interests, preferences and opinions. There are no right or wrong answers. To assess your personality to the highest standard, we need to get the correct information about you. Therefore, you should be totally honest when answering the questionnaire.

Do not spend too long thinking about each question – your first reaction is usually the best. The information given may not be as detailed as you want, but answer the best you can. Be as honest and truthful as you can. Do not give an answer just because it seems like the right thing to say.

**Please ask the assessor or examiner if you do not understand any of the words used in the questions.**

An example of the layout of the APQ questions is shown below:



**Figure 16: Example of APQ Question Layout**

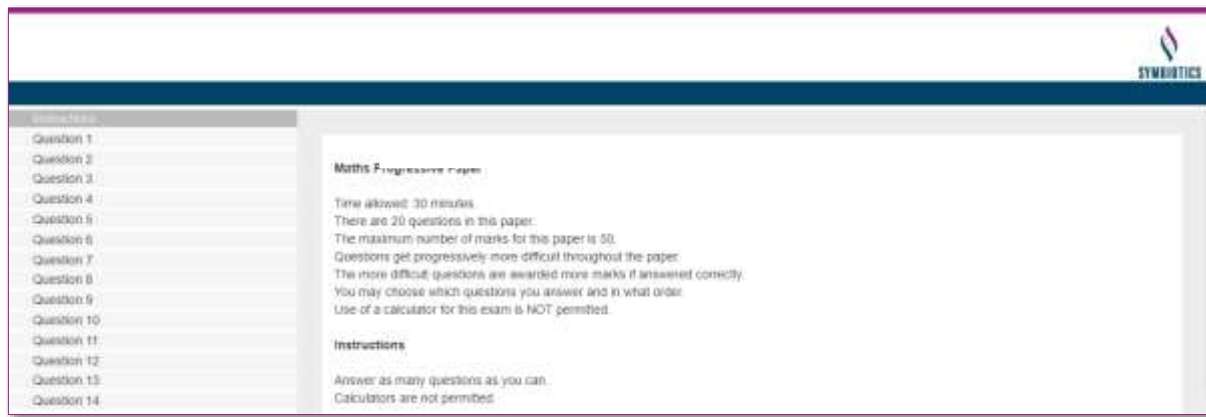
Your answers will be saved at the end of each page, so you can come back and carry on with the questionnaire if you get disconnected. You can go back and change any answers once you have pressed 'next'. You need to answer all questions in all sections. You will not be allowed to finish the questionnaire until all the questions are answered. The left hand bar on the screen will show you how many questions are still to be answered on the page and how many pages are left to complete as well as the number of answers required to complete the page.

The 'finish' button will **only** activate once all questions on all pages have been answered.



### 3. Mathematics Stage

#### 3.1 Instructions



**Figure 17: Mathematics Instructions Screen**

Read the instructions carefully before you click 'next' to start the test. The test is 30 minutes long and the timer will commence when you start the test. Click 'next' to move on to the next page of the test. You may use the 'next' and 'previous' buttons to scroll through the pages of the test.

The test will automatically finish after 30 minutes whether or not you have answered all the questions. You will be logged out of the test and your data uploaded. If you finish the assessment within 30 minutes you may click 'finish' to exit the test. Your data will be uploaded – you will not be able to return to the assessment.

##### 3.1.1 Progressive

If you are taking the 'Progressive Maths Paper' the questions get progressively more difficult throughout the paper:

- Questions 1-5 are at foundation level and worth 1 mark each
- Questions 6-15 are at intermediate level and worth 2 marks each
- Questions 16-20 are at advanced level and worth 5 marks each

You may choose which questions you answer and in what order.

## 3.2 Topics Covered

### 3.2.1 Progressive

- (a) Speed/Distance/Time
- (b) Calculating Fuel Rate
- (c) Basic Pythagoras

## 3.3 Formulas

Below is not an all-inclusive list; familiarising yourself with the topics outlined above should ensure you are aware of all the relevant formulas, including:

- (a) Speed = Distance / Time
- (b) Cosine and Sine rules
- (c) Pythagoras's theorem:  $c^2 = a^2 + b^2$
- (d) Angles in a triangle add up to  $180^\circ$
- (e) Trigonometry ratios

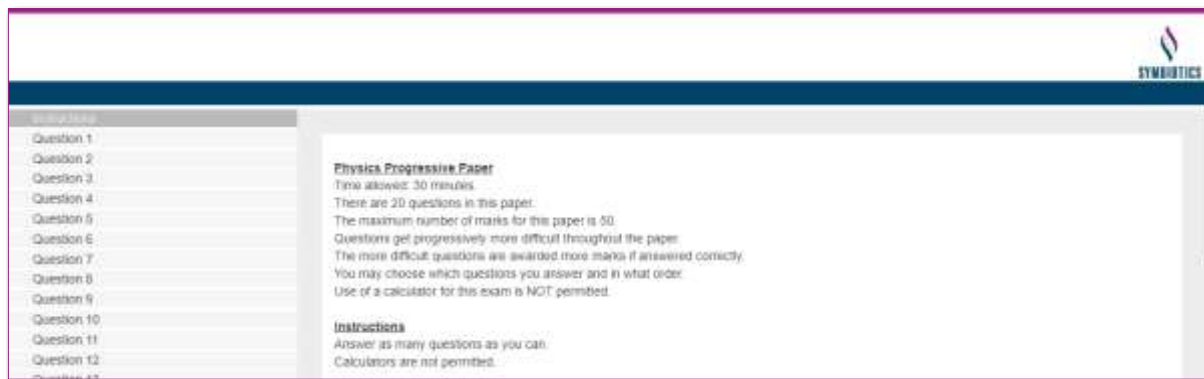
## 4 Physics Stage

### 3.4 Instructions

Read the instructions carefully before you click 'next' to start the test. The test is 30 minutes long and the timer will commence when you start the test. Click 'next' to move on to the next page of the test. You may use the 'next' and 'previous' buttons to scroll through the pages of the test.

The test will automatically finish after 30 minutes whether or not you have answered all the questions. You will be logged out of the test and your data uploaded.

If you finish the assessment within 30 minutes you may click 'finish' to exit the test. Your data will be uploaded – you will not be able to return to the assessment.



**Figure 18: Physics Instructions Screen**

### 3.4.1 Progressive

You will be informed if you are taking the 'Progressive Physics Paper'. In this case the questions get progressively more difficult throughout the paper:

- Questions 1-5 are at foundation level and worth 1 mark each
- Questions 6-15 are at intermediate level and worth 2 marks each
- Questions 16-20 are at advanced level and worth 5 marks each

You may choose which questions you answer and in what order.

## 3.5 Topics Covered

### 3.5.1 Progressive

- (a) Properties of solids, liquids and gases
- (b) Magnets
- (c) Energy
- (d) Mass and weight
- (e) Waves – mechanical and electromagnetic
- (f) Basic circuitry
- (g) Units of measurement
- (h) The universe
- (i) Pressure
- (j) Acceleration
- (k) Force
- (l) Circuitry – current and resistors
- (m) Velocity
- (n) Levers
- (o) Springs
- (p) Balancing weights

## 3.6 Formulas

Below is not an all-inclusive list; familiarising yourself with the topics outlined above should ensure you are aware of all the relevant formulas, including:

- (a)
- (b) Speed = Distance/Time
- (c) Gas laws – Boyle-Mariotte law, Gay-Lussac law, Dalton's law
- (d) Newton's equations of motion
- (e) Hooke's Law
- (f) Bernoulli's Theorem
- (g) Ohm's Law

#### 4. FAST



**Figure 19: FAST Assessment Screen**

The FAST assessment stage is an online screening tool that takes approximately 15 minutes to complete. You will be required to:

- Follow verbal and written instructions
  - Monitor a cockpit view and flight path
  - Fly a 'crash' course
  - Answer cognitive questions. The types of cognitive questions you will be asked are:
    - (a) Numerical Reasoning
    - (b) Verbal Reasoning
    - (c) Abstract Reasoning
    - (d) Perceptual Speed and Accuracy
    - (e) Spatial Relationship Reasoning
    - (f) Working Memory
- ( Note: Examples of these types of questions can be found online)

- Provide self-analysis in the form of a mini-debrief

## 4.2 Step by Step Guide to FAST

### 4.2.1 Information on System Configuration and Requirements

Before you get started you must ensure that you have the necessary hardware to complete the assessment. Close down all other web and desktop applications. Find a quiet location free from distractions.



Figure 20: FAST Welcome Screen



Figure 21: Explanation of Audio Requirements



Figure 22: FAST What to expect



Figure 23: FAST What we expect



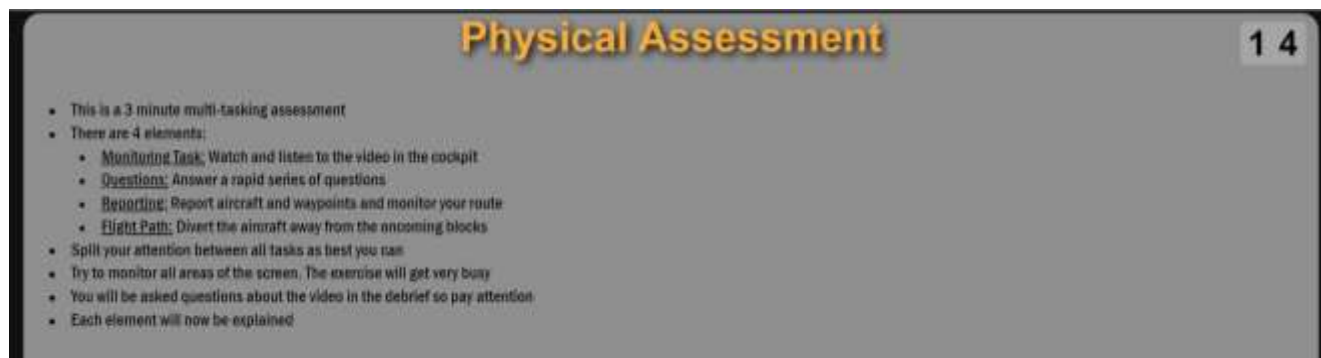
**Figure 24: FAST What we expect**

4.2.2 Information on the FAST System

Look out for the timer on some pages. They will push you through the assessment. When this expires the assessment will progress to the next page.

You will be briefed on all stages of the assessment as you progress. We will help you configure your computer appropriately and ensure that you are ready for take-off.

4.2.3 Information on the FAST Assessment



**Figure 25: Information on Physical Assessment**



Figure 26: Information on Cockpit Monitoring

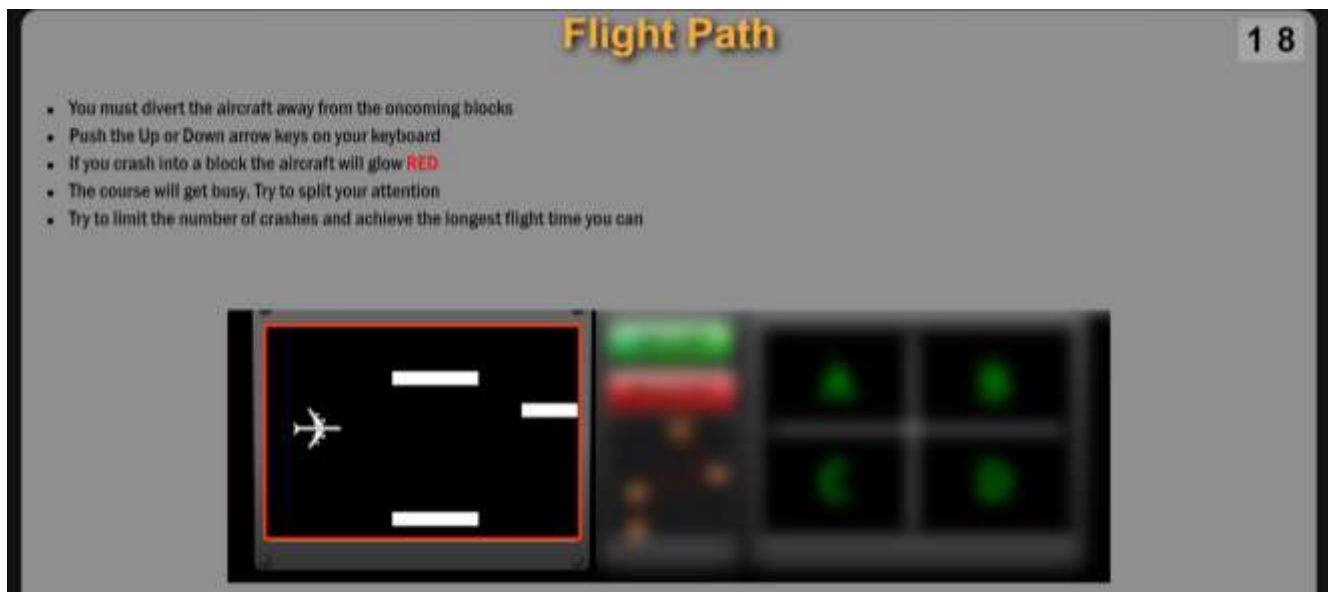
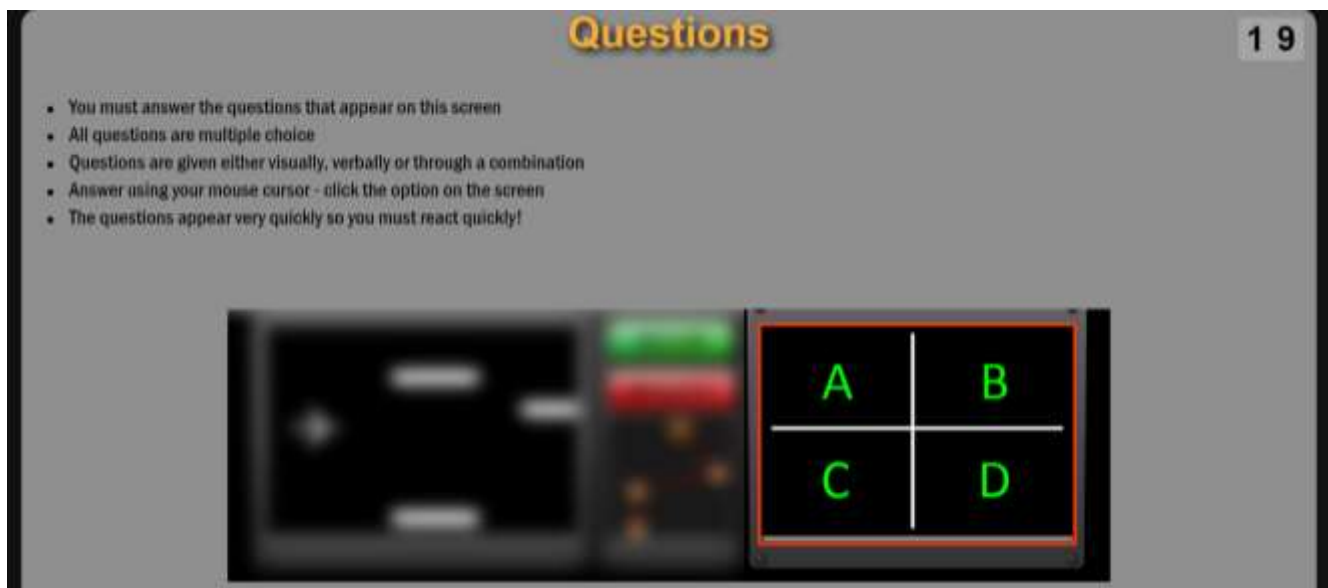


Figure 27: Information on Flight Path





**Figure 28: Information on Reporting**



**Figure 29: Information on Questions**

The final part of the test is a debrief section.

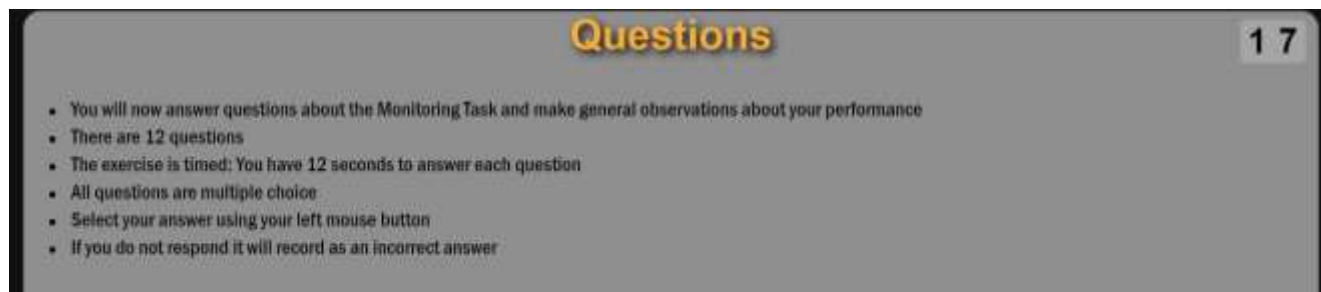


Figure 30: FAST Test Debrief Instructions

## 5. Cognitive Testing

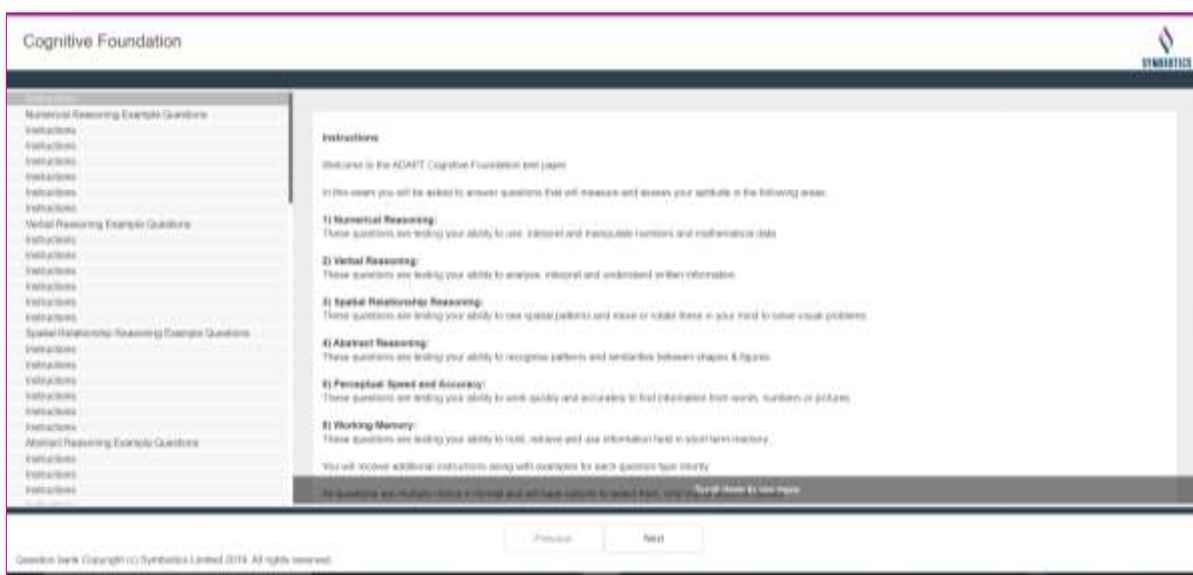


Figure 31: Cognitive Reasoning Instruction Page

### 5.1 Information on Topics Tested

This exam will measure and assess your aptitude some or all of the following areas, and last approximately 30 minutes:

- Numerical Reasoning** These questions are testing your ability to use, interpret and manipulate numbers and mathematical data.
- Verbal Reasoning** These questions are testing your ability to analyse, interpret and understand written information.
- Spatial Relationship Reasoning** These questions are testing your ability to see spatial patterns and move or rotate these in your mind to solve visual problems.

<b>Abstract Reasoning</b>	These questions are testing your ability to recognise patterns and similarities between shapes and figures.
<b>Perceptual Speed and Accuracy</b>	These questions are testing your ability to work quickly and accurately to find information from numbers or images.
<b>Working Memory</b>	These questions are testing your ability to hold, retrieve and use information held in short term memory.
<b>Mechanical Reasoning</b>	These questions measure your knowledge and understanding of key mechanical and physical concepts and principles, such as machinery and motion. It includes understanding the function of mechanisms and knowledge of how to achieve desired outputs. Concepts include levers, pulleys, gears, springs, simple electrical circuits and fault diagnosis.

You will receive specific instructions along with example questions for each question type shortly. All questions are multiple choice in format and will either have three or four answer options to select from, only one of which is correct.

You will need to read each question carefully before responding. You will not be able to go back to change your answers: you will need to work accurately but quickly in order to complete the test within the time limit.

Each question set will have 6 questions, making a maximum total of 42 questions in the paper.

## 5.2 Levels of Cognitive Tests

Currently there are 2 levels of cognitive test –

- Foundation is for Ab-initio candidates
- Intermediate is a more advanced level for candidates with aviation knowledge and experience

Although the tests are based on similar themes and subjects, the more advanced questions are either set at a higher level of difficulty or assume a high level of aviation knowledge or understanding.

## 5.3 Foundation Cognitive Test Examples

### 5.3.1 Numerical Reasoning

All questions will be multiple choice in format and will have 4 answer options available, only 1 of which is correct. Question types include:

- 1) Basic Algebra
- 2) Sequences
- 3) Fractions, Decimals and Percentages
- 4) Arithmetic
- 5) Conversions
- 6) Speed / Distance / Time calculations

**For example:**

Calculate how many miles there are in 64 km.

- a) 40 miles
- b) 48 miles
- c) 45 miles
- d) 50 miles

Answer = A

### 5.3.2 Verbal Reasoning

All questions will be multiple choice in format and will have 3 answer options available, only 1 of which is correct. Question types include:

- 1) Anagrams
- 2) Aviation Acronyms
- 3) Connections
- 4) Synonyms
- 5) Antonyms
- 6) Logic

**For example:**

Select the word most opposite in meaning to regular.

- a) Normal
- b) Usual
- c) Unusual

Answer = C

### 5.3.3 Spatial Relationship Reasoning

For these questions, a question image will be displayed for 5 seconds only.

This image will then be replaced with 4 answer option images.

Only 1 of these 4 images correctly answers the question.

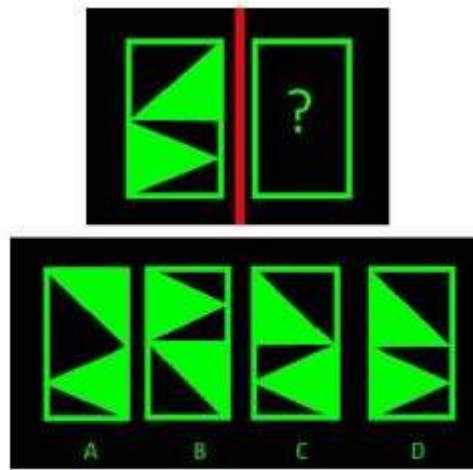
You will not be able to view the original question image after the initial 5 seconds.

Question types include:

- 1) Reflection
- 2) Rotation
- 3) Cubes
- 4) Directions
- 5) Map
- 6) Radars meet

**For example:**

Select the option that shows a reflection of this image in the red line:



Answer = C

5.3.4 Abstract Reasoning

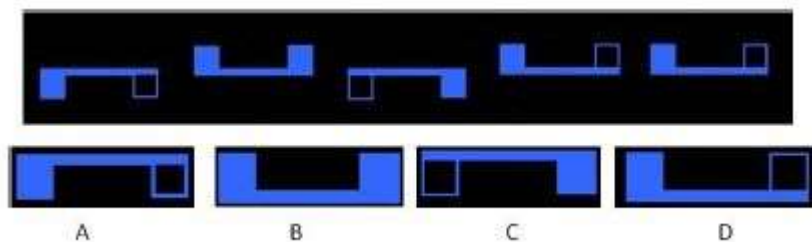
All questions will be multiple choice and will have 4 answer options available, only 1 of which is correct.

Question types include:

- 1) Select the odd image
- 2) Complete the sequence
- 3) Complete the statement
- 4) Complete the grid

**For example:**

Select the odd image that does not fit with the other images:



Answer = B

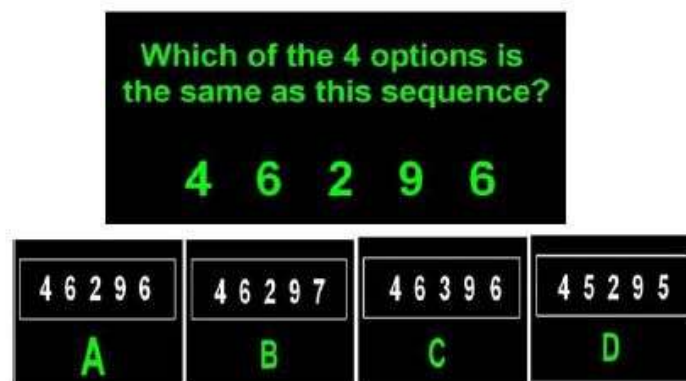
### 5.3.5 Perceptual Speed and Accuracy

For these questions, you need to respond as quickly as possible – your reaction times to complete each question will be recorded by the system. Question types include:

- 1) Match sequence - numbers
- 2) Match sequence - letters
- 3) Cockpit dials
- 4) Sorting data
- 5) Scanning
- 6) Matrix

**For example:**

Select the sequence that exactly matches the one below:



Answer = A

### 5.3.6 Working Memory

For these questions, a question image will be displayed for 5 seconds only.

This image will then be replaced with 4 answer option images.

Only 1 of these 4 images correctly answers the question.

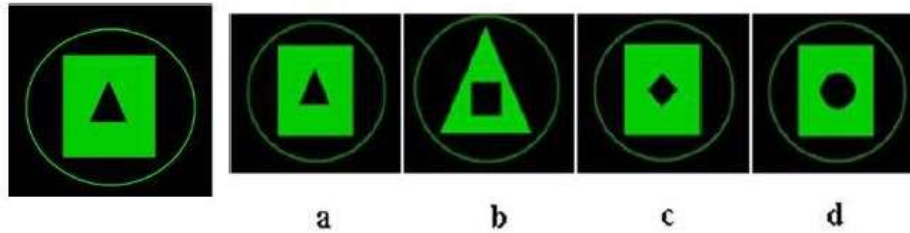
You will not be able to view the original question image after the initial 5 seconds.

Question types include:

- 1) Counting task
- 2) Memory span
- 3) Dot memory
- 4) Match sequence
- 5) Match image
- 6) Radar location

**For example:**

Select the sequence that exactly matches the one below:



Answer = A

## 6. Co-ordination and Control



**Figure 32: Co-Ordination Assessment**

The purpose of the assessment is to measure your control and coordination. The aim is to hold the ball in the centre of the target for as long as possible.

Throughout the assessment the ball will try to move away from the centre of the target and your task is to use the joystick to guide the ball back on target.

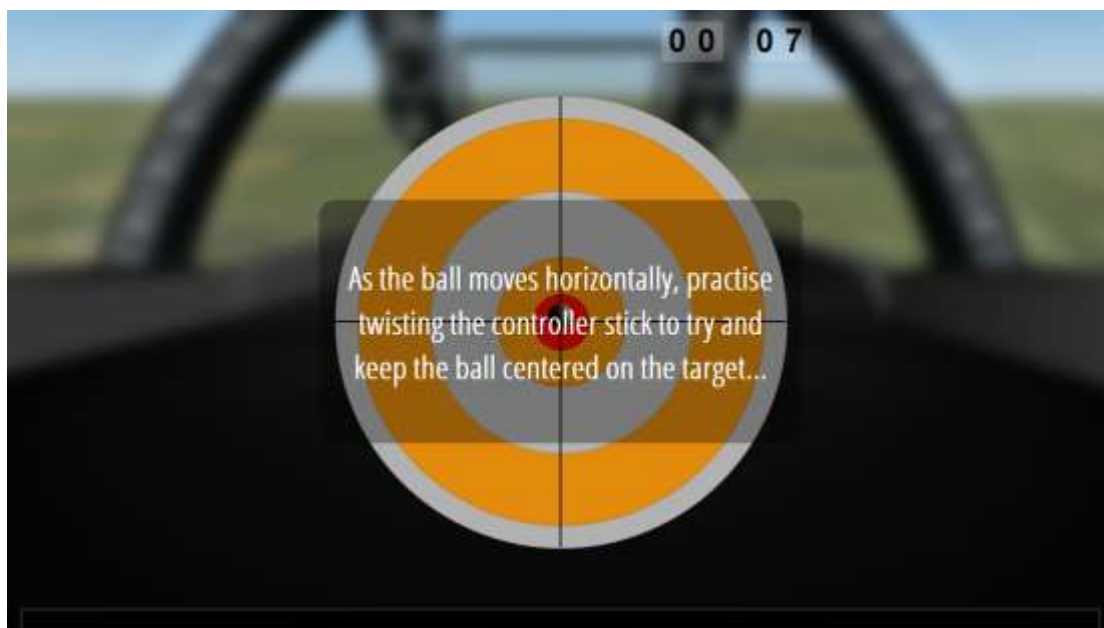
Moving the joystick forward and backward will control the vertical position of the ball, twisting the joystick left and right will control the horizontal position of the ball.

As the assessment goes on the action will change speed and direction and test how quickly you react to the movement of the ball.

The assessment will last for 3 minutes, preceded by two 20 second practices.

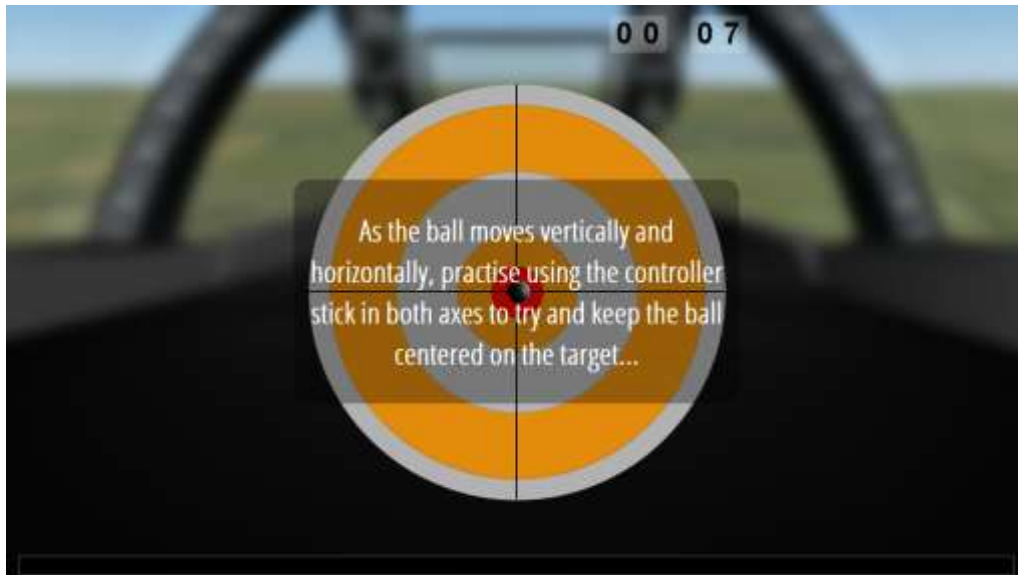


**Figure 33: Co-Ordination Assessment Screen (a)**

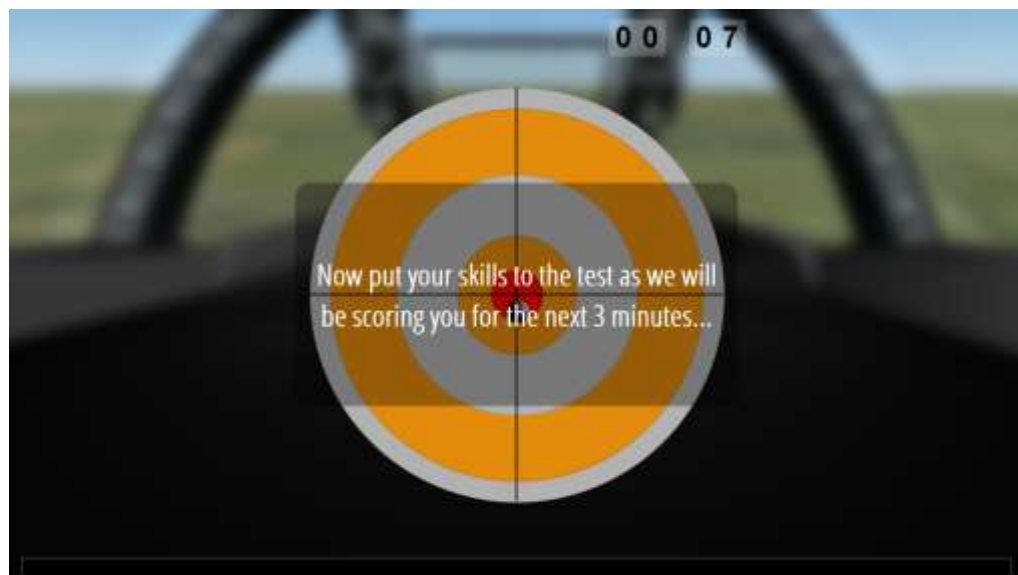


**Figure 34: Co-Ordination Assessment Screen (b)**





**Figure 35: Co-Ordination Assessment Screen (c)**



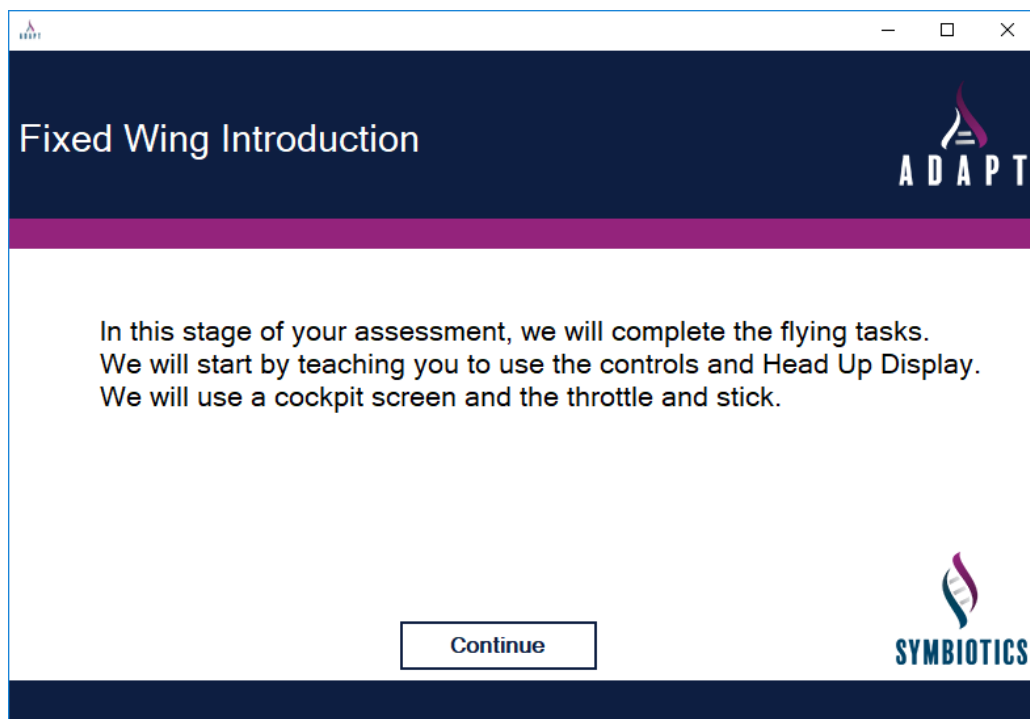
**Figure 36: Co-Ordination Assessment Screen (d)**

## 7. Flight Simulation

### 7.1 Fixed Wing Assessment 1

This stage uses a flight simulator that is based on a simple computer game. It is controlled using a set of flight controls.

You will first be presented with the introductory instructions, both auditorally and on screen. Once these have completed, the flight simulator will load. Pay attention to these instructions, as they will explain how to control the flight simulation.



**Figure 37: Example of Fixed Wing Instruction**

The first task will help you practice using the controls and screen. You will be looking at the cockpit screen and using the throttle and stick. The aim is for you to get experience using the controls and get used to the head up display.

The head up display will be on the screen. Speed is displayed on the left side, altitude is on the right side and heading is at the bottom of the screen.



**Figure 38: Fixed Wing HUD**

To help you fly at a steady speed put the throttle in the middle position. To find this push the throttle all the way forward, then all the back and find the middle point. The stick will be very quick to respond so your movements need to be gentle. If there are any buttons on the stick do not use them, as they will not help you.

#### 7.1.1 Changing Height

To increase altitude, pull the stick towards you. Move the aircraft symbol to no more than 5 degrees above zero and the altitude will start to increase. To stop ascending, gently pull the stick back to the upright position. Bring the aircraft symbol back in line with the zero degrees bar.

The stick will be very quick to respond so your movements need to be gentle. Do not use the buttons on the stick as they will not help you.

To decrease altitude, gently push the stick forward. Lower the aircraft symbol to no more than 5 degrees below zero the altitude will start to decrease. To stop descending, gently pull the stick back to the upright position. Bring the aircraft symbol back in line with the zero degrees bar.

#### 7.1.2 Changing Speed

To help you fly at a steady speed put the throttle in the middle position. To find this push the throttle all the way forward, then all the back and find the middle point.

To go faster, move the throttle forward and your speed will increase. To stay at your new speed, bring the throttle back to the middle position. To slow down, move the throttle backwards. Your speed will then decrease. To fly at your new speed, again move the throttle back to the middle position. Airspeed is shown on the left side of the head up display.

### 7.1.3 Changing Heading

Heading is shown at the bottom centre of the head up display.

To turn left, move the stick very gently to the left. The natural horizon should cut from the top left corner to the middle of the right side of the head up display. Bring it back in line with the zero degrees bar and heading will decrease.

To level out, start moving the stick gently to the right about 5 to 10 degrees before you reach your new heading.

To turn right, move the stick gently to the right. Make sure that the horizon cuts from the top right corner to the middle of the left hand side of the head up display. On reaching a new heading, start to straighten out by turning gently to the left.

## 7.2 Fixed Wing Assessment 2

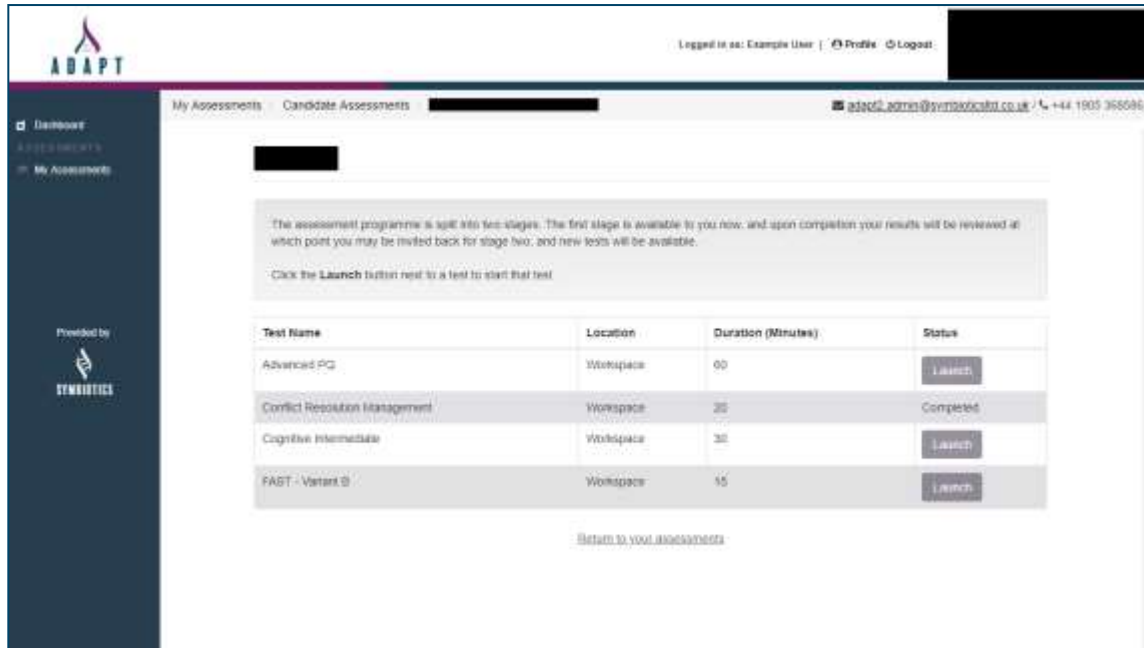
### 7.2.1 Route

During this phase you will be required to fly at an accurate height and speed using features that you will be able to see on the head up display.

You will be given instructions that you should follow accurately to help you find the points that you are looking to fly over. Only when you assess that you are over the top of the points should you change heading to fly towards the next feature.

## 8. Finishing the Assessment

When you have finished each of the tests you will see a screen displaying the specific list of tests that you are undertaking, highlighting which ones are complete:



**Figure 39: Central Screen.**

Once a test has been completed click on the "Return to your assessments" link to access your next test. When you have completed all the tests please click on "Logout" at the top of the web page. This will upload your results to Symbiotics Ltd. Your results report will be generated and sent to the Academy.