

Reader's Guide to The Ultimate EU Test Book

*Essential books for
European Personnel
Selection Office (EPSO)
competitions and EU careers*

Reader's Guide to The Ultimate EU Test Book

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András Baneth, founding author of The Ultimate EU Test Book

Welcome to this quick guide to the 1426 pages of The Ultimate EU Test Book range of titles!

The first version of The Ultimate EU Test Book was published in 2005. Since then it has established itself as Europe's No. 1 bestselling resource for candidates for EU selection competitions, unique in the authority and range of its coverage. The Test Book now exists in four specialist editions, three of them covering the EPSO exams and one for onward career development.

We also introduce our new book Working for the EU: How to Get In, which makes an excellent introductory companion to The Ultimate EU Test Book series.

The "Family Tree"



There are 150 verbal reasoning questions like these in the Assistant Edition and 180 in the Administrator.

You have to choose the correct answer based solely on the information in the text.

Q1. Beethoven first joined Prince Lichnowsky's household and studied under Haydn, Albrechtsberger, and possibly Salieri. His music is usually divided into three periods. In the first (1792–1802), which includes the first two symphonies, the first six quartets, and the 'Pathétique' and 'Moonlight' sonatas, his style gradually develops its own individuality. His second period (1803–12) begins with the 'Eroica' symphony (1803), and includes his next five symphonies, the difficult 'Kreutzer' sonata (1803), the Violin Concerto, the 'Archduke' trio (1811), and the 'Razumovsky' quartets. His third great period begins in 1813, and includes the Mass, the 'Choral' symphony (1823), and the last five quartets. (*Biography.com*)

- A. Beethoven was born in 1770.
- B. The second period of Beethoven's music began with the Kreutzer sonata.
- C. Salieri had most probably died before Beethoven was born.
- D. Beethoven composed the Moonlight sonata in the first period of his musical life.

Q2. A tsunami is a series of ocean waves that sends surges of water onto land and can reach heights over 30.5 meters. The waves are typically caused by large, undersea earthquakes at tectonic plate boundaries where the ocean floor rises or falls suddenly and displaces the water above it, launching the waves that become a tsunami. They are also caused by underwater landslides, volcanic

eruptions, and have been caused by the impacts of large meteorites plunging into the ocean in Earth's ancient past. Tsunamis race across the sea at up to 805 kilometers an hour, about as fast as a jet airplane, and can cross the entire Pacific Ocean in less than a day as their long wavelengths make them lose very little energy along the way. In deep ocean, their waves may appear only 30-50 cm or so high, but as they approach shoreline and enter shallower water, they slow down and begin to grow in energy and height. About 80 percent of them happen within a geologically active area in the Pacific Ocean. (*environment.nationalgeographic.com*)

- A. Tsunamis increase in velocity as they near landfall and force swells of water onto the shoreline.
- B. Volcanoes cause more tsunamis than do subaquatic avalanches.
- C. A tsunami appears smaller at larger depths but increases in strength as it gets closer to land.
- D. The higher the height of the tsunami, the faster it moves across the ocean

ANSWERS

1. D

- A. Insufficient information. The text gives no indication of when he was born.
- B. Incorrect. His second period started with Eroica not Kreutzer.
- C. Incorrect. As Beethoven possibly studied under Salieri then Salieri could not have died before Beethoven was born.
- D. Correct.

2. C

- A. Incorrect. Tsunamis slow down as they approach the shoreline and enter shallower water.
- B. Insufficient information. The passage does not discuss their relative proportions.
- C. Correct. Tsunami waves appear only 30–50 cm or so high in deep ocean, but as they approach the shoreline, they grow in energy.
- D. Insufficient information. We are told that tsunamis can cross the sea at up to 805 km per hour but not what the relationship is between speed and height.

Each set of test questions is preceded by a chapter explaining the methodology for tackling the questions.

All questions come with full answer explanations as in this numerical reasoning example.

Power Station	Country	Annual Electricity Production (TWh)
Itaipu Dam	Brazil	98.30
Three Gorges Dam	China	98.50
Krasnoyarsk	Russia	20.40
Grand Coulee	USA	20.00
Guri	Venezuela	53.41

Country Annual Electricity Consumption Statistics (MWh)	
Brazil	455 700 000
China	5 322 300 000
Russia	1 016 500 000
USA	3 886 400 000
Venezuela	85 850 000
	1 TWh = 1 000 000 MWh

- If they are ranked by the percentage that a power station generates of the total electricity consumption of the given country, which station would be in the middle?

A. Three Gorges Dam
 B. Itaipu Dam
 C. Guri
 D. Grand Coulee
 E. Krasnoyarsk
- Venezuela plans to build another power station of the same production capacity as that of Guri. If existing power stations produce 78% of the electricity consumed in Venezuela, how much electricity will Venezuela have available for export after completion of the new power station?

A. 20.97 TWh
 B. 34.523 MWh
 C. 34 523 MWh
 D. 20 970 000 MWh
 E. 34 523 000 MWh
- If the electricity produced by the Three Gorges Dam would be enough to cover 3.24% of the electricity consumed in the EU, and the EU produces

30% of the electricity it consumes from nuclear power, how much electricity in the EU is produced from nuclear power?

- A. 912.04 MWh
- B. 91.20 TWh
- C. 912.00 TWh
- D. 912.04 TWh
- E. 3040.12 TWh

Q1. Correct Answer: E

Reasoning

We must calculate the percentage each power plant's electricity production represents of the total for that country and then see which one is in the middle.

Calculation

To calculate the proportion the production of a power plant represents in the total consumption of that country, we simply divide its production by the country's consumption.

Since all of the operations we will perform are divisions, and there are five zeroes at the end of almost all consumption figures, we can simply disregard those. In the case of Venezuela, this means that we will divide by 858.5.

Itaipu Dam / Brazil:

$$98.3 / 4\ 557 = 0.02157121$$

Three Gorges Dam / China:

$$98.5 / 53\ 223 = 0.001850704$$

Krasnoyarsk / Russia:

$$20.4 / 10\ 165 = 0.002006886$$

Grand Coulee / USA:

$$20 / 38\ 864 = 0.0005146151$$

Guri / Venezuela

$$53.41 / 858.5 = 0.06221316$$

The numbers above are a little hard to compare because they are so small, but with a bit of care it is possible. We can see that Grand

Coulee is the only one with 3 zeroes after the decimal point, so that will be the smallest proportion. Also, Guri and Itaipu Dam only have one zero after the decimal point, and the next number is greater (6 versus 2) in the case of Guri, so that will be the largest proportion, followed by Itaipu Dam.

This is what we have so far, from smallest to largest proportion:

Grand Coulee / USA

?

?

Itaipu Dam / Brazil

Guri / Venezuela

We are now left with Three Gorges Dam / China and Krasnoyarsk / Russia – one of them will be in the middle. Both of them have two zeroes after the decimal point, but the next number is greater in the case of Russia (2 versus 1), so we have our final order:

Grand Coulee / USA

Three Gorges Dam / China

Krasnoyarsk / Russia

Itaipu Dam / Brazil

Guri / Venezuela

Krasnoyarsk is clearly in the middle.

Potential Shortcuts / Pitfalls

There is a great opportunity to estimate here.

We can quite easily see that Guri tops the list for generating the highest proportion of its country's electricity. The Guri power plant generates more than half the electricity of either the Brazilian or Chinese power stations, but Venezuela's consumption is far smaller than that of Brazil or China.

The next smallest consumption figure belongs to Brazil, yet Itaipu Dam has the second largest production, so it must come second (while Itaipu Dam produces almost twice as much electricity as Venezuela's Guri, Brazil's consumption is about 5 times as large as Venezuela's).

If we compare the USA's consumption to China's, we see that they are fairly comparable (3.9 to 5.3) but the Grand Coulee generates only the fifth of the electricity generated by the Three Gorges Dam, so it must be in the last position.

We are now again left with Russia and China, but without having performed any calculations. The way to compare the Russian and Chinese power stations is to look at the relationship between their production and their national consumptions.

Krasnoyarsk to Three Gorges is 1 to slightly less than 5.

Russia to China, however, is 1 to slightly more than 5.

This means that the Three Gorges percentage will be lower, so it will be the fourth in the list, leaving Krasnoyarsk in the middle.

Q2. Correct Answer: E

Reasoning

We must first calculate how much electricity is currently produced in Venezuela from the total consumption and the percentage which current production contributes to this. We will then add the capacity of the new power station to this total and subtract Venezuela's total consumption to see how much is left for export.

Calculation

To find the current total production, we calculate 78% of the total consumption of Venezuela. To keep things consistent, we should decide whether we are going to perform all calculations in TWh or MWh. We will use TWh on this occasion.

The electricity consumption of Venezuela is then:

$$85\,850\,000 \text{ MWh} / 1\,000\,000 = 85.85 \text{ TWh}$$

78% of this is produced by the existing power stations:

$$85.85 \times 78\% = 85.85 \times 0.78 = 66.963 \text{ TWh}$$

After the completion of the new power station (which has the same capacity as that of Guri), the new total production will be:

$$66.963 \text{ TWh} + 53.41 \text{ TWh} = 120.373 \text{ TWh}$$

If we subtract the current total consumption from the above figure, we get the amount available for export:

$$120.23 \text{ TWh} - 85.85 \text{ TWh} = 34.523 \text{ TWh}$$

Since this is not among the answer options, we must also convert this into MWh and check if that is correct:

$$34.523 \text{ TWh} \times 1\,000\,000 = 34\,523\,000 \text{ MWh}$$

which is answer option E.

Potential Shortcuts / Pitfalls

There are two major issues to be careful with here.

First, we must notice and then not get confused by the different orders of magnitude represented by the two different units of measurement, as defined in a footnote to the table. In situations like this, it is advisable to make a decision about which one you will use and then consistently convert all values to that unit before performing the actual calculations.

Also, it is tempting to simply double the capacity of the Guri power station (since the new one has the same capacity) and compare that to the consumption of Venezuela. That, however, would disregard the information given in the question text, namely that current production represents 78% of the total consumption (which means there must be other power stations in the country).

Q3. Correct Answer: D

Reasoning

The electricity consumption of the EU is unknown at the beginning of this exercise, but we know that the capacity of the Three Gorges Dam is equal to 3.24% of this, from which we can calculate the total (100%). Once we have that, we simply take 30% of this total to get the amount generated from nuclear power.

Calculation

Since the total electricity consumption of the EU is unknown, let's call it X. We do know that 3.24% of this is equal to the capacity of the Three Gorges Dam, and this capacity is a known value:

$$3.24\% \times X = 98.5 \text{ TWh}$$

Let's convert 3.24% to a decimal:

$$0.0324 \times X = 98.5 \text{ TWh}$$

Our aim is to find the total consumption of the EU, or X. Remember, in equations like this, we want 1 X to be alone on one side, and we achieve that by performing the same operations on both sides. Here, all we have to do is divide by 0.0324:

$$X = 98.5 / 0.0324 = 3\,040.12346 \text{ TWh}$$

This is the total consumption of the EU, 30% of which is produced from nuclear power:

$$3\,040.12346 \times 30\% = 3\,040.12346 \times 0.3 = 912.04 \text{ TWh (rounded)}$$

Potential Shortcuts / Pitfalls

There are several things to watch out for in this question.

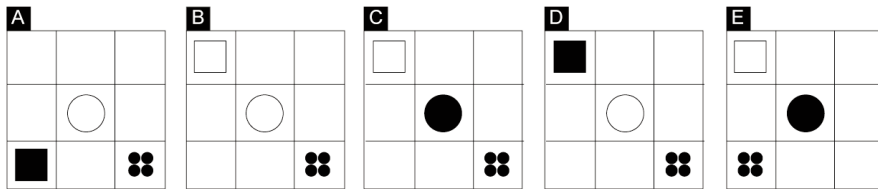
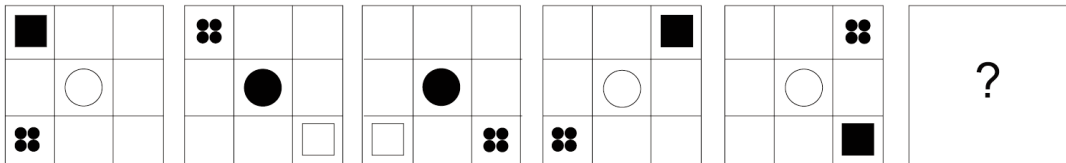
- do not stop after having solved the equation – that is the total consumption of the EU, not the share of nuclear power
- do not round prematurely: if you round the total consumption to the nearest whole number and you calculate 30% of that, you would erroneously mark option C as the correct answer
- watch out for the units of measurement: all throughout the calculations, we only worked with TWh, so be careful with the answer options expressed in MWh

There are 135 Numerical reasoning questions in the Assistant Edition and 165 in the Administrator Edition.

These 3 questions are from the Administrator Edition

There are 110 abstract reasoning questions like these in the Assistant Edition and 160 in the Administrator

QUESTION 1: WHICH FIGURE COMPLETES THE SERIES BELOW?



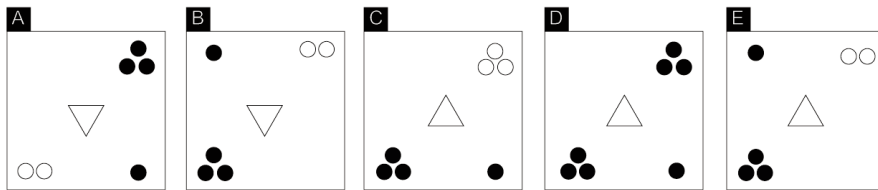
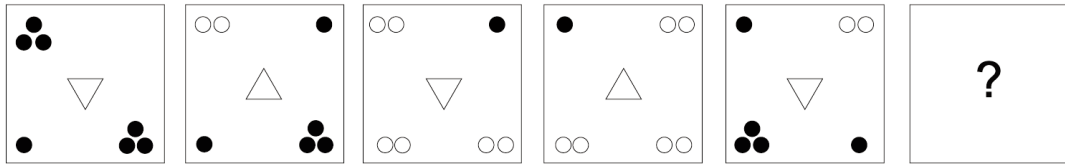
QUESTION 1: CORRECT ANSWER C

Rule 1: The square alternates between jumping diagonally between opposite corners and taking two clockwise steps.

Rule 2: The circle and the square swap their shading in every other step.

Rule 3: The group of dots follows the square, indicating the square's position in the previous step.

QUESTION 2: WHICH FIGURE COMPLETES THE SERIES BELOW?



QUESTION 2: CORRECT ANSWER D

Rule 1: The circles at the top left corner migrate from the left to the right corner one by one in every other step. The migration starts between the first and second steps.

Rule 2: The circles at the bottom right corner migrate from the right to the left corner one by one in every other step. The migration already started before the start of the series, and continues from between the second and third steps.

Rule 3: Circle clusters are shaded when there is an odd number of circles and unshaded when an even number.

Rule 4: The triangle alternates between pointing up and pointing down.

Many candidates find abstract reasoning questions very daunting but they follow clear rules and principles which are explained in the Methodology chapters in both the Assistant and Administrator editions

There are 30 situational judgement questions like these in the Administrator Edition and 25 in the Assistant

SITUATION

At a weekly meeting you are making a presentation to a large number of members of your Unit, including several senior staff. You prepared well for the presentation, but halfway through you realise you are working from an incomplete version of the slides and you do not have the final few slides that show the conclusion. There are still some slides remaining in your slideshow that you know are not missing. You have about 15 minutes left to talk, and know that it will take about 5-10 minutes to find the updated version of the slides.

- A. Apologise and state that you will need to complete the talk next week as you are missing important slides.
- B. Apologise and ask a colleague to find the correct slides while you continue to talk on the available slides.
- C. Continue the talk but focus mainly on the slides available, discussing the conclusion briefly where possible.
- D. Call a break while you find the slides, locate them, then return and talk through what you can in the remaining time.

ANSWER.

EPSO competency: RESILIENCE

The most appropriate answer in this case is **Option B**. While this involves admitting that a mistake

was made with the slides, it should not undermine confidence in what you have to say. By talking off script (if you have to) while the slides are located, you can demonstrate your breadth of knowledge in the topic which could actually add credibility to your talk.

Option A is the least effective response. While it is a difficult situation to find yourself in, you should seek to resolve it now. You risk losing impact and interest if you resume in a week's time. You also risk wasting the time of those who are unable to attend the meeting both weeks.

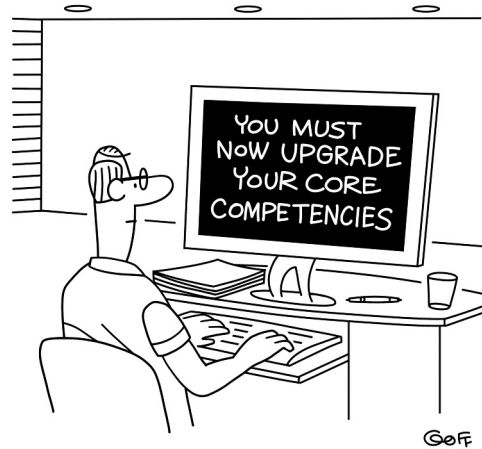
Option C is a possible response and it may actually help the presentation appear to go the most smoothly to your audience. However, it has the downside that you risk losing impact by not addressing the conclusion in as much depth as you could. You are also potentially wasting important slides that you spent time developing and could illustrate your key conclusions well.

Option D is an appropriate response. This shows a determination to fix the issue despite the difficult situation. However, by breaking off your presentation you may damage the flow of the talk, and you may also need to rush your final slides to keep to time. Thus, it would be better to ask a colleague to locate the slides.

All about the Competencies

The Ultimate EU Test Book Assessment Centre 2019

The Ultimate EU Career Development Book



With the great reform introduced in 2010 EPSO, after wide consultation with the EU institutions, introduced the new system of “competencies”.

These are the qualities that are sought in EU staff in addition to the reasoning skills that are tested in the pre-selection exams. They are the “soft skills” needed to become a rounded official.

Candidates in EPSO competitions face testing of their competencies at the Assessment Centre. This is the final stage, usually takes place in Brussels and consists of a series of exercises (some individual and some taken as part of a group).

Only a limited number of candidates get to the Assessment Centre. It is very challenging but those who succeed become “laureates” eligible for recruitment by the institutions as permanent officials. Thorough preparation is absolutely essential or you risk being simply overwhelmed on the day.

Our book for Assessment Centre candidates is **The Ultimate EU Test Book Assessment Centre** (now in its 2019 edition), by *András Baneth* and *Jan De Sutter* and it is used by a high proportion of those who succeed.

The competencies are not, however, a one-off, just for the purposes of passing an EPSO exam. They are key to your long-term development as an EU official – and that is the theme of our complementary book **The Ultimate EU Career Development Book**, by *Jan De Sutter*.



Jan De Sutter, former EU official and EPSO selection board president who now coaches candidates for the Assessment Centre.

Both these books are supported by our popular free to use self assessment tool, which helps you understand your strengths and weaknesses in the EU competencies

Administrators 2019

ISBN 9781999959555

428 pages

Publication date: March 2019

- Extended new guide to EPSO Administrator competitions and how to maximise your chances of success
- The tests EPSO uses and how they are measured
- Methodologies, shortcuts and pitfalls in tackling the EPSO tests
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- 165 Administrator-level numerical reasoning practice questions with full answers, now with "warm up" exercises to target specific types of question
- 160 Administrator-level abstract reasoning practice questions with full
- 30 situational judgement tests

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- 135 Assistant-level numerical reasoning practice questions with full answers
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- Sample practice exercises for all the test types
- Detailed scoring guides for self-assessing your competencies
- Reserve List and Recruitment
- Frequently asked questions and glossary
- Common mistakes to avoid

The Ultimate EU Career Development Book

ISBN 9780993454936

310 pages

Published in 2016

- The central importance of competencies to your EU career
- Understanding your strengths and weaknesses and how to self-improve
- Individual chapters on Analysis and Problem Solving, Communicating, Delivering Quality and Results, Learning and Development, Prioritising and Organising, Resilience, Working with Others and Leadership
- Self-assessment worksheets for each competency
- Self-assessment can be done online for free with extra features and competency passport
- Improve your job satisfaction and career prospects

Working for the EU: How to Get In

By Johannes de Berlaymont

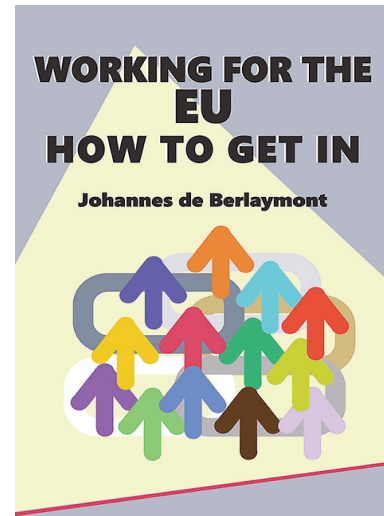
This is *the* book for anyone wanting to know about the opportunities a career in the EU public administration can provide – and the many different ways to ‘get in’. It is also highly relevant to those already with temporary positions or internships who want to move their careers forward.

Among the many topics covered are:

- The wide range of positions in the EU institutions and agencies, in Brussels, Luxembourg and worldwide
- The types, advantages and disadvantages of permanent and temporary posts
- How temporary posts can become stepping stones to permanent or very long-term jobs
- The critical difference between being selected and being recruited – and how recruitment really works
- The little-known alternatives to passing an open competition
- The value of *stages* and other types of traineeships
- The crucial importance of building your networks
- Why and how you should think strategically, keeping as many options open as possible

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€17

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'I think you should stress one positive particularity of working in the institutions; nobody works here by accident. Given the whole competitive selectiveness of the system – no matter which way you get in – there are hardly any of the indifferent, random colleagues one encounters in other organisations. Most colleagues worked really hard to get in. That changes the dynamics. People want to be here.'

A quote from one of the many EU officials who contributed their insights to the book

Johannes de Berlaymont is the nom de plume of a widely experienced former EU insider.