KPIT

Instructions for KPIT's Diploma Hiring - 20 June 2021

Registration Link : https://talentojo-kel.kpit.com/tojo/app/job-apply/#/Campus/36979/77

(You will receive a test link post successful registration)

Job Description and Required Skills

Job Description

Skills Required

- Strong programming skills in C and C++
- Good understanding of application development concepts
- Good understanding of Computer architecture, various memories like ROM, RAM, EEPROM
- Strong mathematical & analytical skills
- Excellent communication and presentation skills (written and oral)
- Ability to articulate well and have good clarity of thought/speech
- High level of energy and confidence
- Willingness to learn and innovate
- Usage of MS Office Suite
- Collaboration/meeting tools like MS Teams

Upon joining, you shall be expected to undertake jobs of the following nature (depending upon the vertical you are assigned to):

- Work on projects in the domains of Autonomous Driving, Connected Vehicles, Mobility, Power-train or some other domains
- Requirement's analysis
- Design, understand algorithms/concepts, and convert them into a mathematical model
- Testing and validation of code
- Optimization and porting of code onto micro-processors

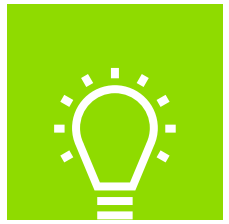
Joining CTC

- Cost to Company (CTC) upon Joining:
  - A salary range of 2.7 Lac per year (LPA).
  - Please note that there is a two-year bond.
- Other Benefits (may change / improve)
  - Medical Insurance for Employees- 6 Lac
  - Parental Health Insurance – 5 Lac for parents and in-laws (payment basis, 50% cheaper than market)
  - Personal Accident Insurance – 20 Lac
  - Free Annual Health check for employees and their family members (parents, in-laws, spouse)

Test Structure

Test structure

Day 1: 20 June 2021
(180 Mins in total)
1:00 PM to 5:00 PM – you are allowed to log into the test from 1:00 PM to 1:30 PM only



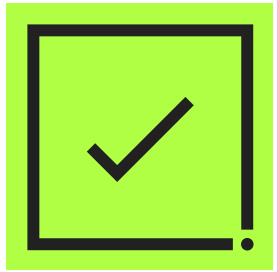
Day 1:
Section A:-
Aptitude
Basic Math's
Professional skills and English
C Language Basics
Algorithmic Thinking

Section B:-
CPP and OOPS
CPP Code Snippets
Coding Test

Shortlisted candidates

Day 2: 22 June 2021
(1 hour)

Behavioral Assessment
Please keep 09:00 AM to 11:00 AM free.
No preparation is required by the candidates.



Offer letter to the selected candidates will be issued on or before 30 June 2021

Syllabus

Diploma

Day 1:

You should expect 60 Multiple Choice Questions in Section A & 35 Questions in Section B (Split:- 1 is coding Question & 34 is MCQ based Questions) on these topics / subjects for a time duration of 180 mins.

Example for C Language Basics

1. What will be the output of the following code:

```
void main()
{
char *p;
p = "KPIT";
printf ("%c", *&*p);
}
```

Option 1: K

Option 2: KPIT

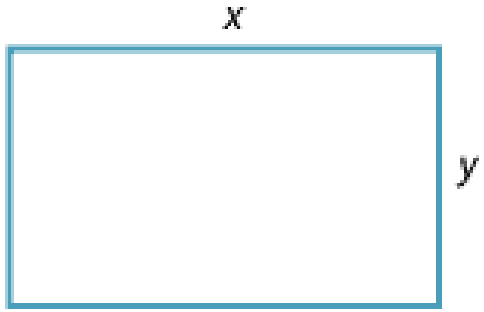
Option 3: Address of p

Option 4: None of the above

Example Problem on Algorithmic Thinking

1. For the following problem, what are the correct steps to obtain the right solution?

Find the dimensions of a rectangle with perimeter 1000 meters so that the area of the rectangle is a maximum.



A. Find the derivative of the equation: $A(x) = 500\,x\, - x^2$

   You will get max(A) at $\frac{dA}{dx} = 0$. and solve the equation.

B. Find the double derivative of the equation: $A(x) = 500\,x\, - x^2$

C. Find the relation between x and y i.e., $1000\, =\, 2x\, +\, 2y$. Hence, $y\, =\, 500 - x$

D. Find the equation for area. $A(x)\, =\, xy\, =\, x(500 - x)\, =\, 500x - x^2$

E. Apply constrains $0\, <=\, x\, <=\, 500$

a) C, D, A

b) A, B, C, D

c) E, B, D

d) E, A ,B, C, D

Examples for CPP and OOPS

1. What will be the output of the following code: #include <iostream>

```
using namespace std;
class Test
{
Test() {cout << "Test Constructor called"; }
};
int main()
{
Test t1;
return 0;
}
```

Option 1: Test Constructor called

Option 2: Compile-time error

Option 3: Run-time error

Option 4: None of the above

Examples for CPP Code Snippet

Q: Predict the output of the given code snippet?

```
#include <iostream>
using namespace std;
int i;
class A
{
public:
~A()
{
i=10;
}
};

int foo()
{
i=3;
A ob;
return i;
}
int main()
{
cout << foo() << endl;
return 0;
}
};
```

Option 1: 0

Option 2: 3

Option 3: 10

Option 4: None of the above

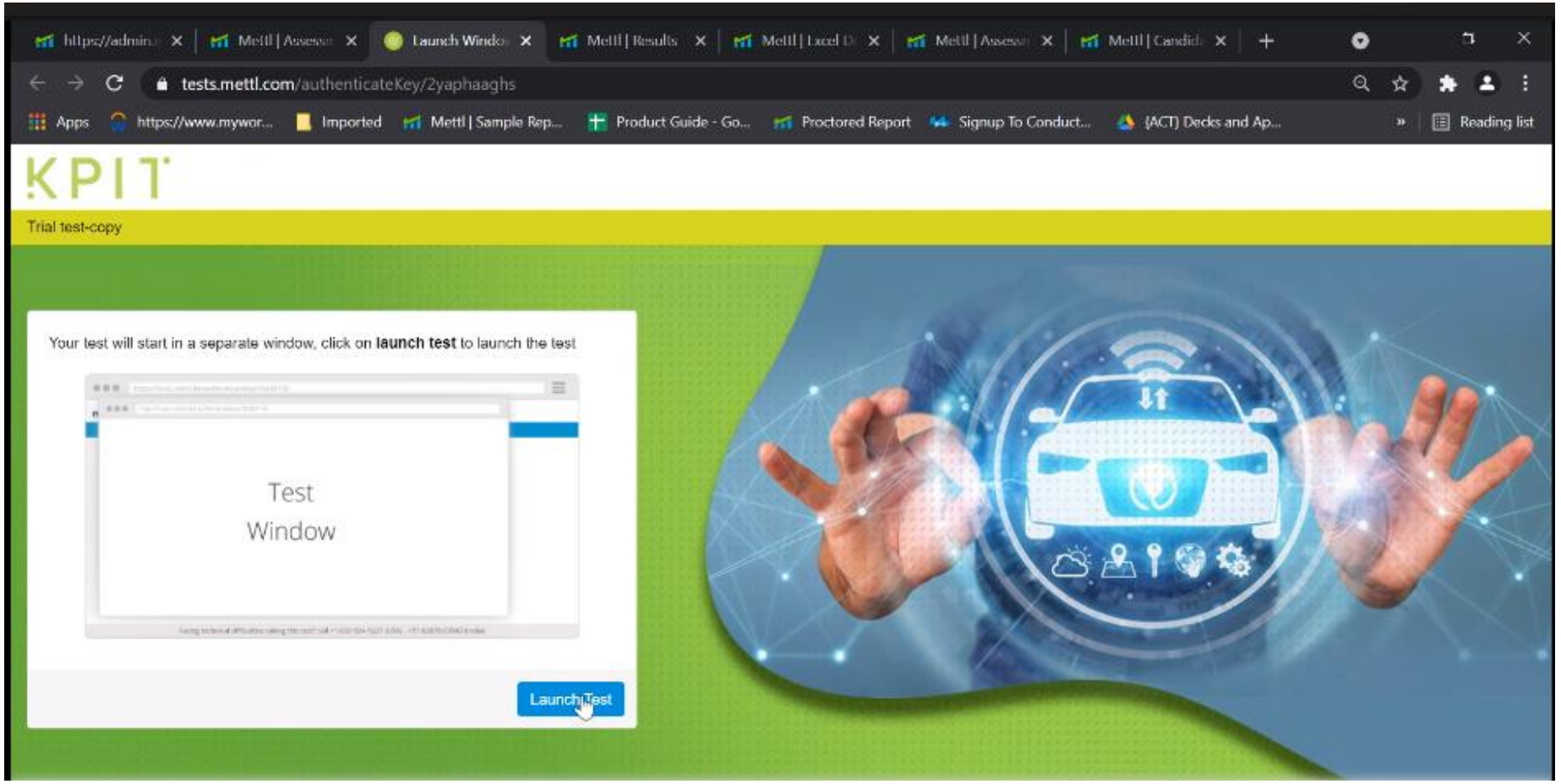
Rules for the Test
(Very Important)

How Should You Arrange Your Test Environment?

- Please ensure that your monitor / laptop is close to a wall and no one can stand behind the monitor.
- You will be asked to show the room anytime during the test. Hence …
  - Ensure that no one else is in your room during the test.
  - You should not have any digital device or textbook around you when the test is being conducted.
  - You should not keep a mobile-phone or any video-casting device around you.
- Please have a high-resolution camera mounted on the monitor. Do not change its position.
- Please do keep some rough-paper, pen and calculator with you, because many questions would require calculations.
- No water-breaks / toilet-breaks are allowed. Please, do keep some water and snacks handy.
- The test-platform shall automatically log you out if …
  - Your complete face is not visible throughout the test.
    - Please ensure that you are facing a light-source, so that your face is clearly visible. Also, there should not be any light-source behind you.
  - Someone else is talking in the room or there is some noise in the room.
  - You are wearing tinted glasses or sun-glasses.
  - You are browsing any web-site.
  - You connect any additional monitor over VGA, HDMI or Bluetooth / Wi-Fi.

About the Assessment Platform

Steps to log in to the mettl platform



If you have any challenge at this step, please contact the Campus Team, KPIT at campus@kpit.com. Please do not communicate with anyone else.

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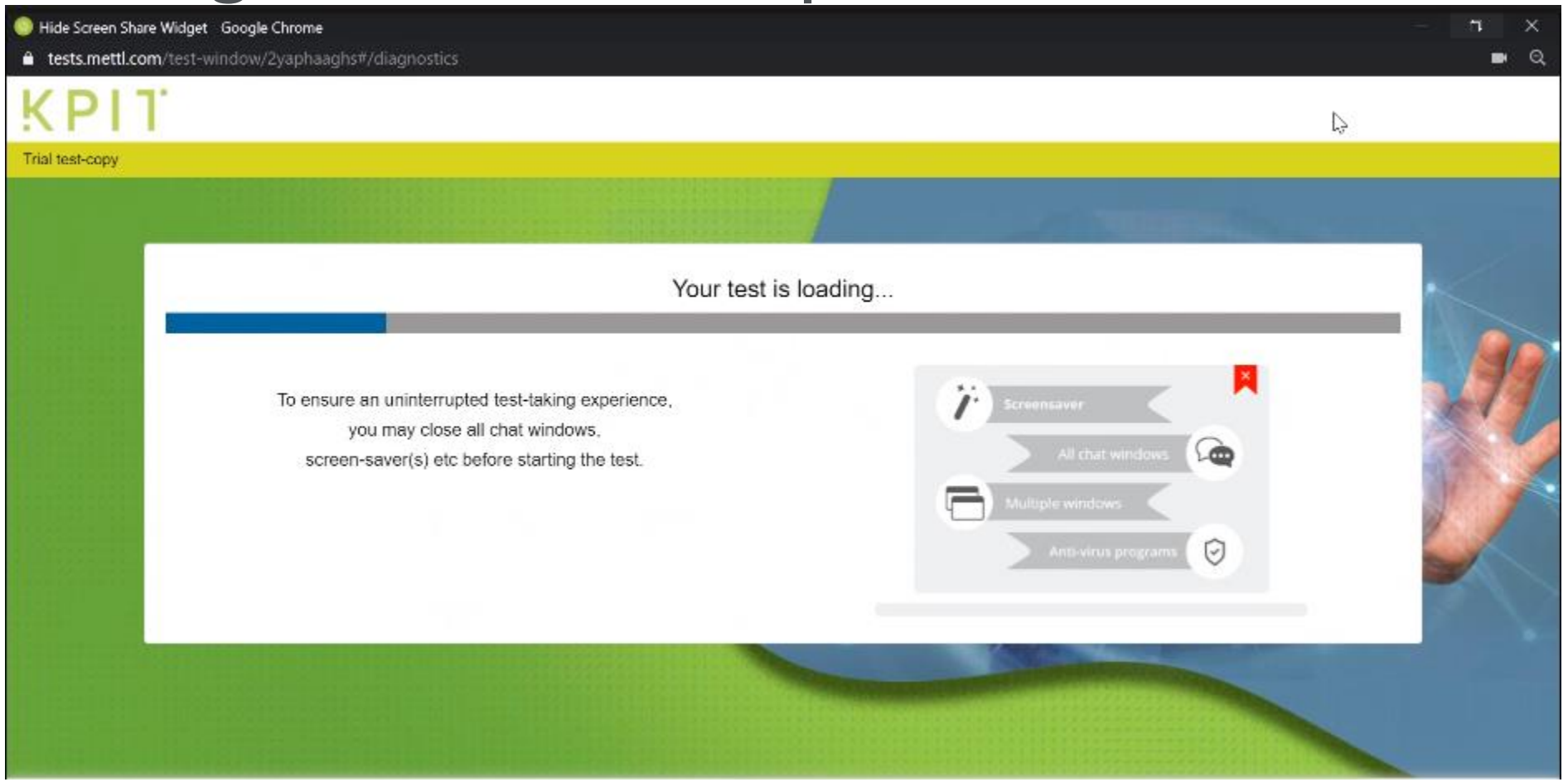

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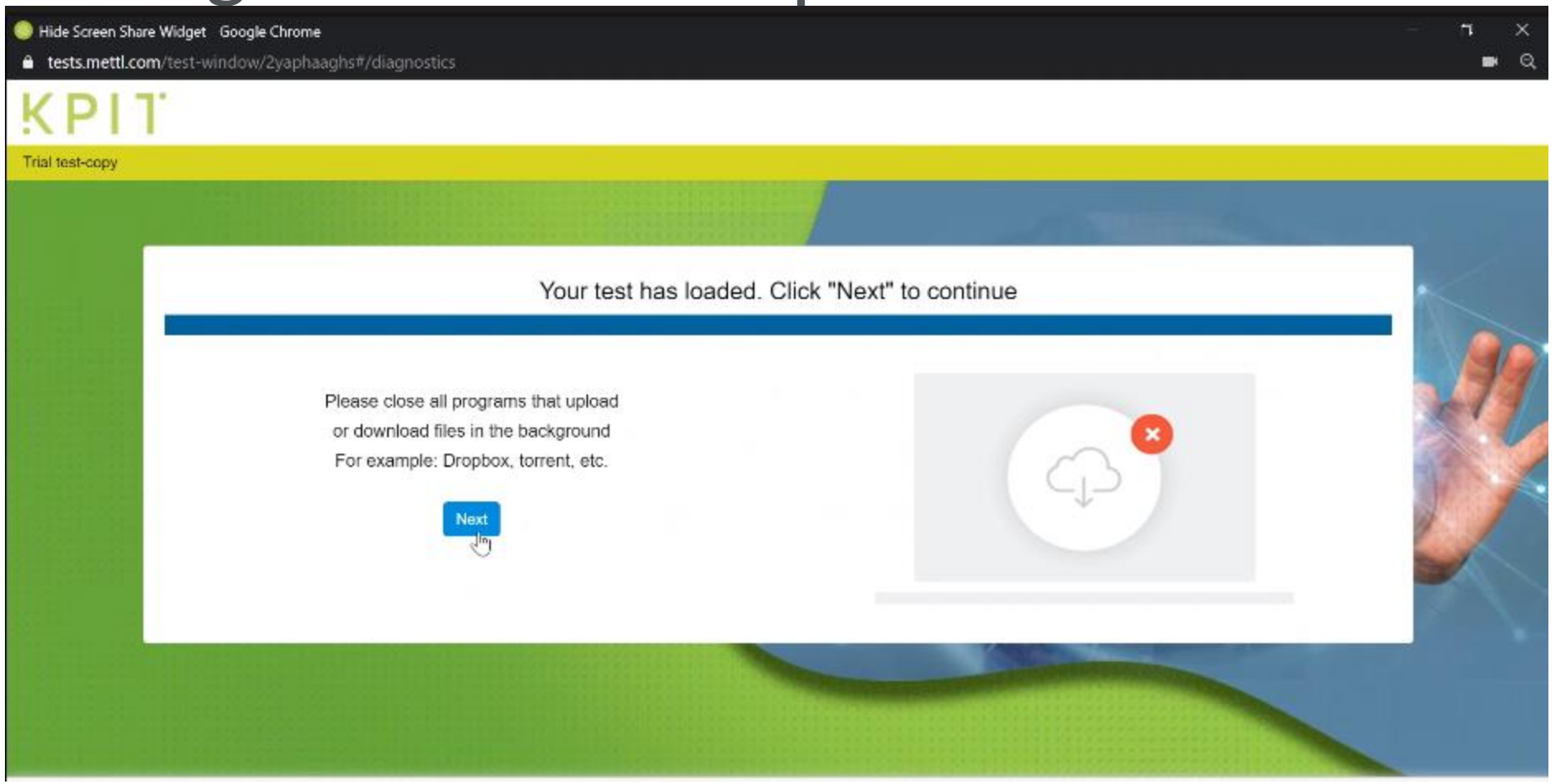

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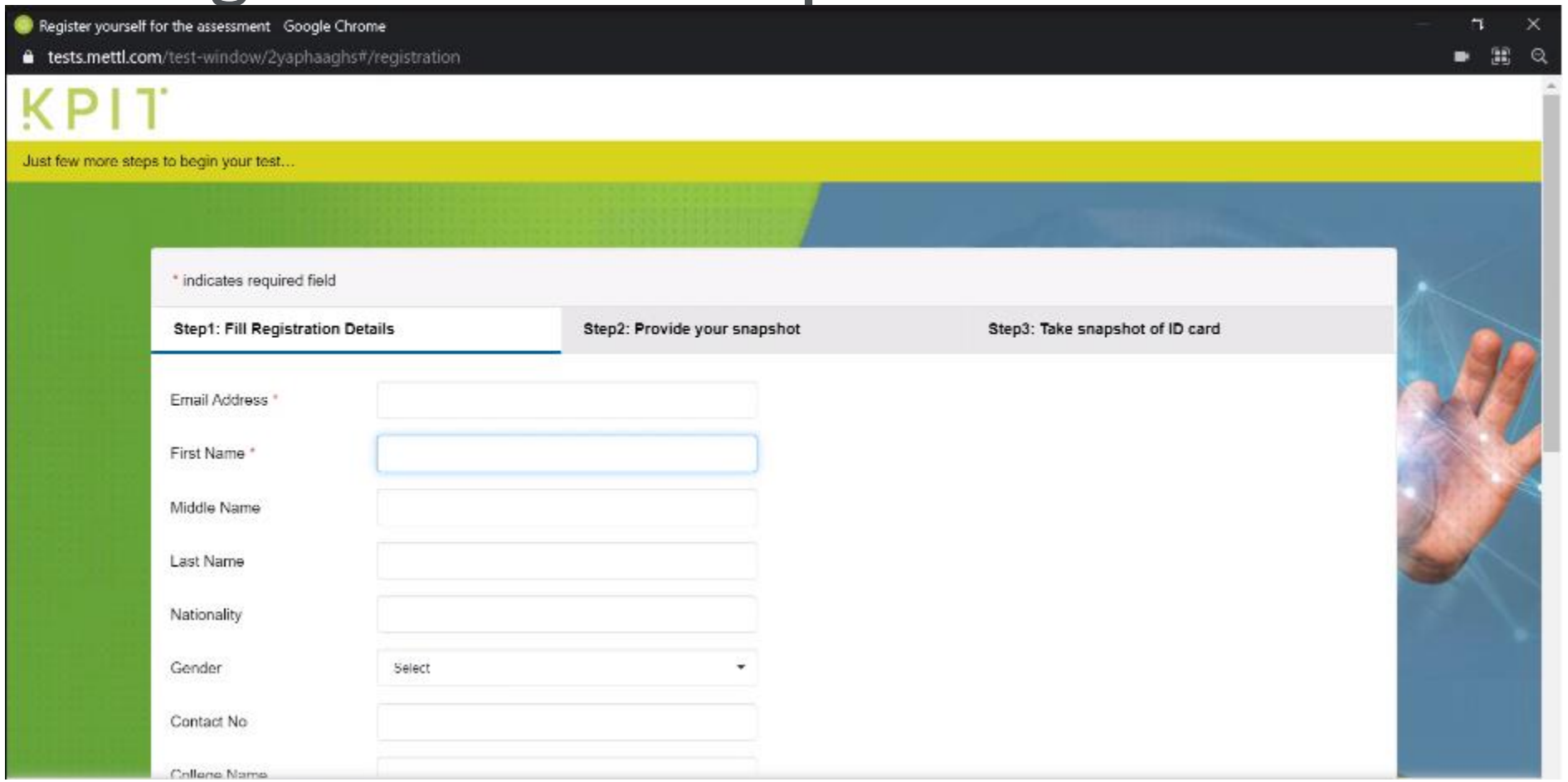

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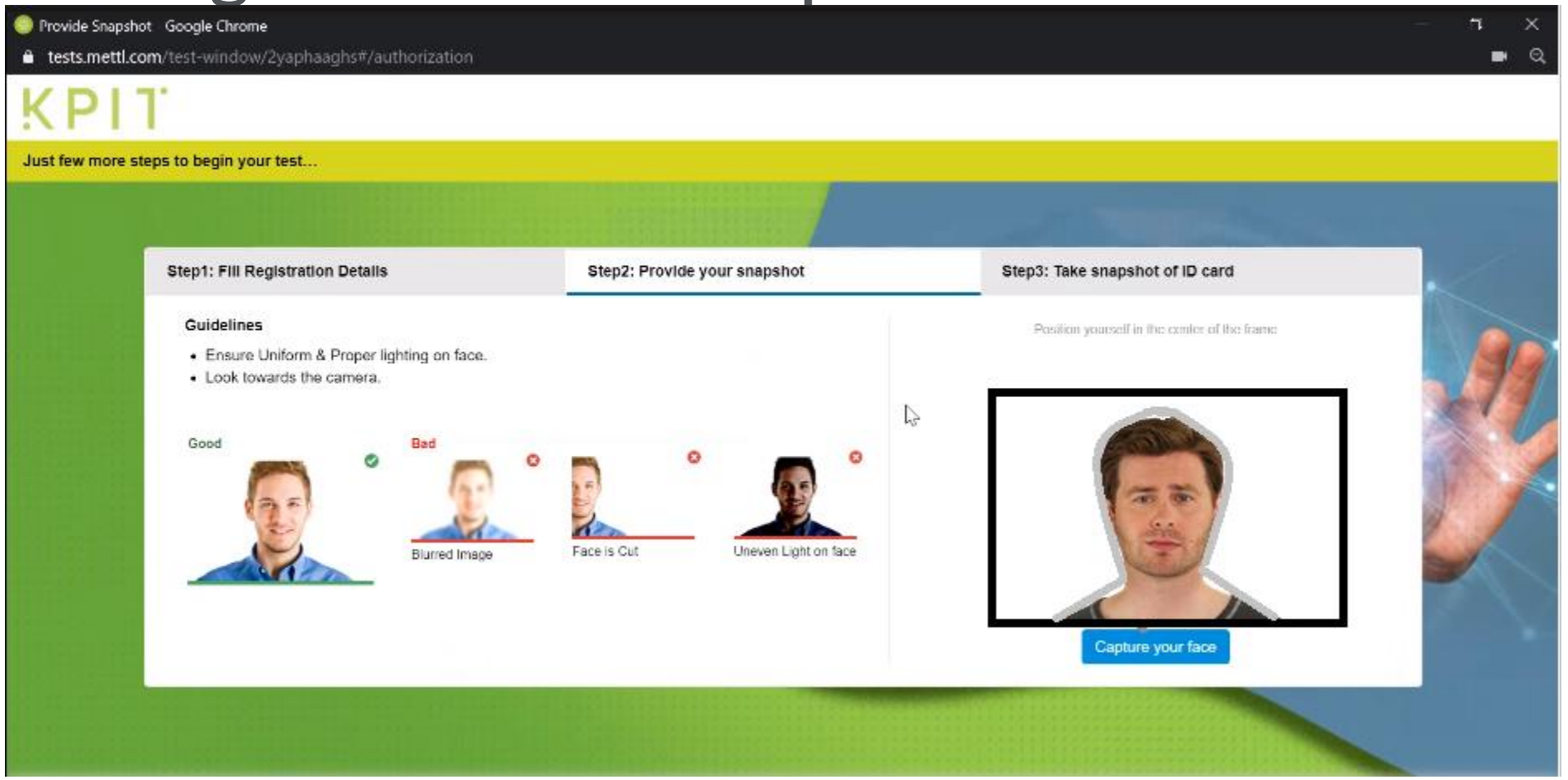

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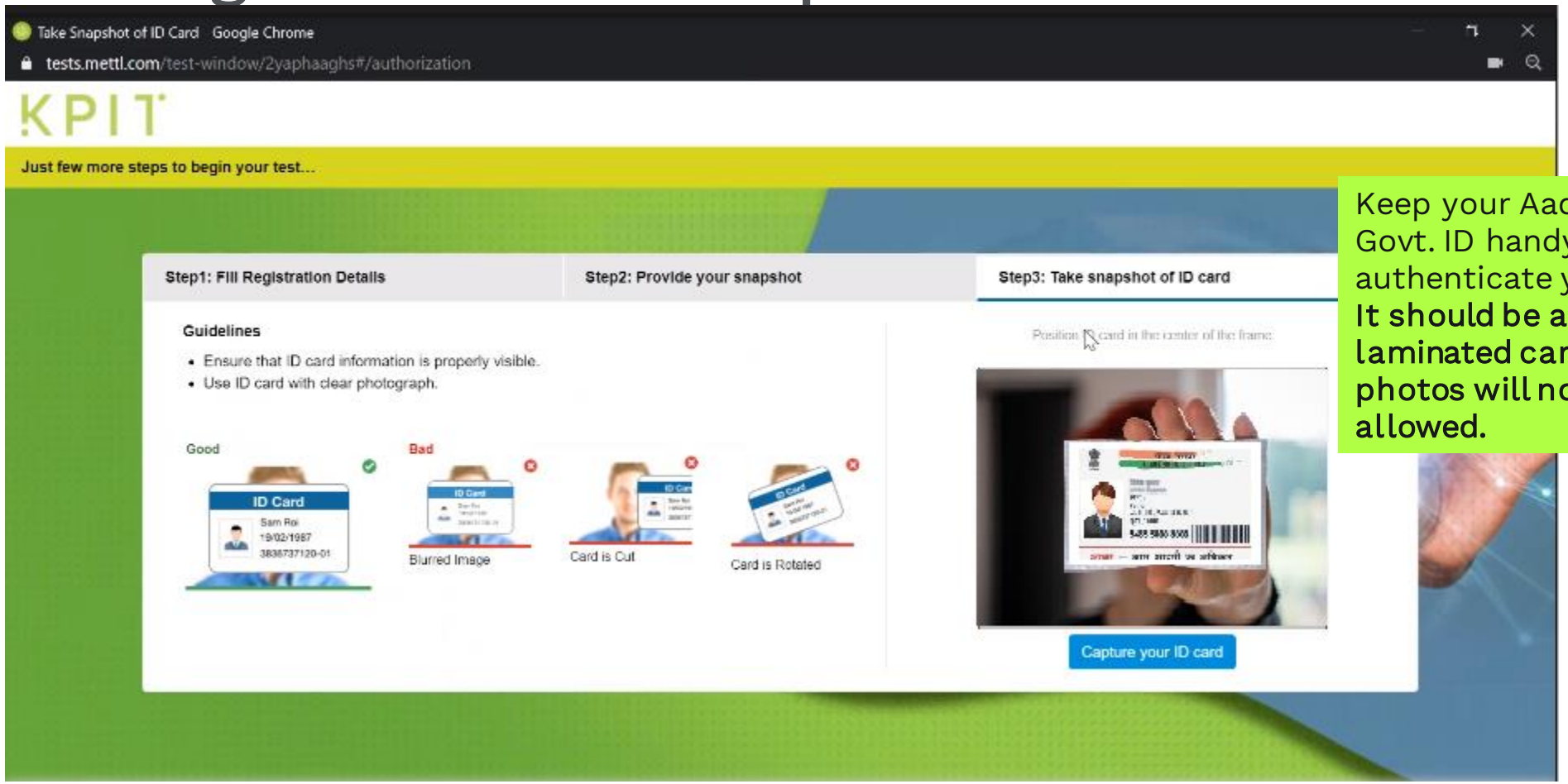
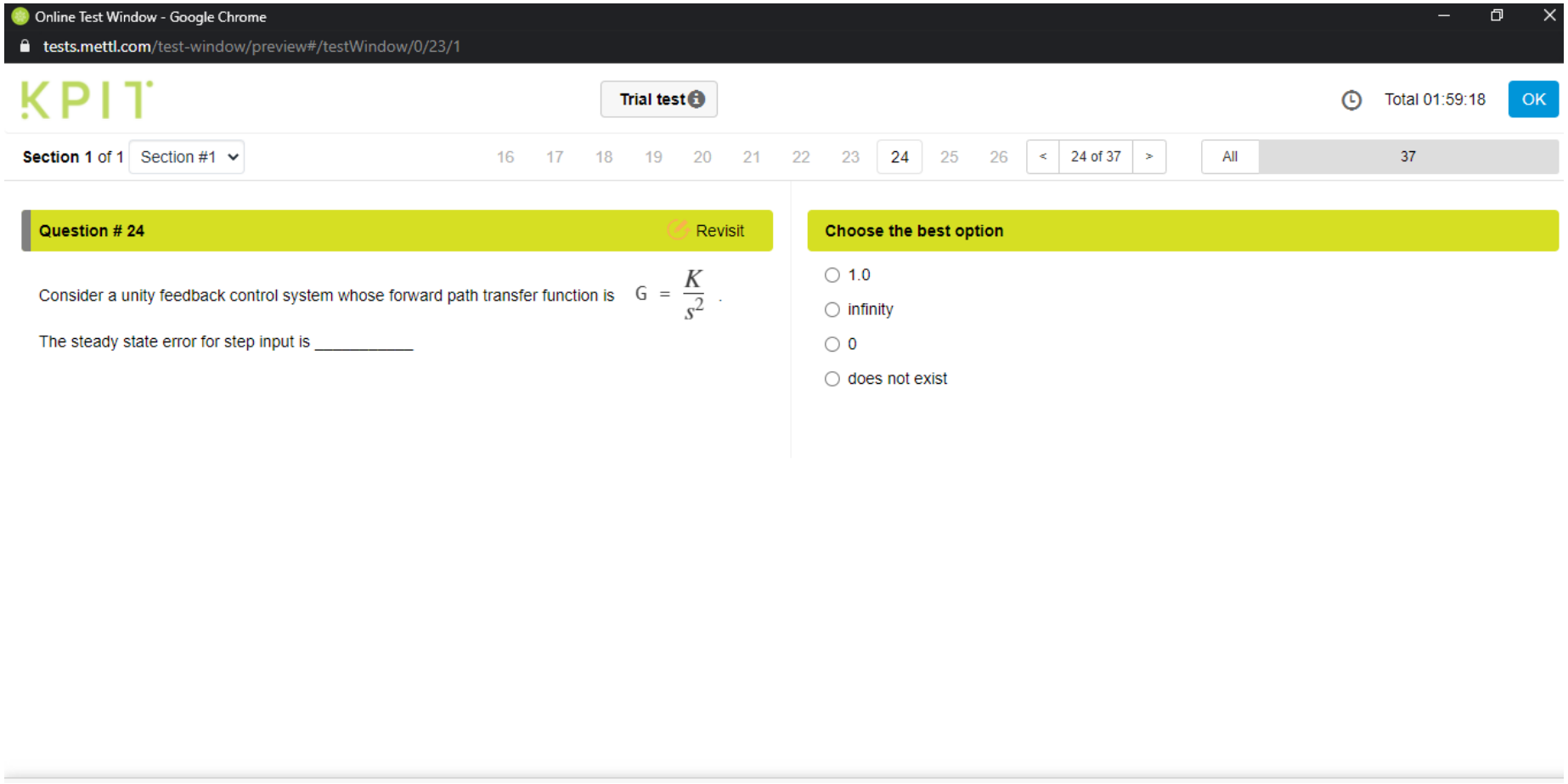


Keep your Aadhar card / Govt. ID handy to authenticate yourself. **It should be a non-laminated card. Mobile-photos will not be allowed.**

If you have any challenge at this step, please contact the Campus Team, KPIT at campus@kpit.com. Please do not communicate with anyone else.

Your MCQ test environment will look like this



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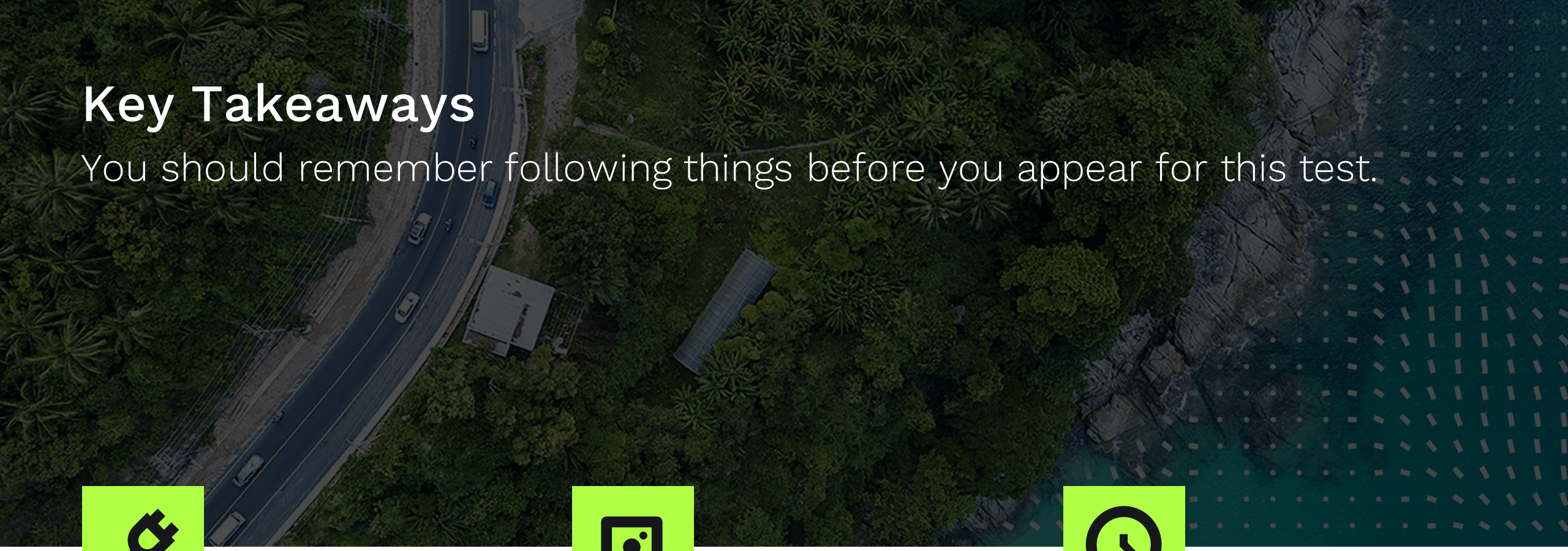
Key Takeaways

You should remember following things before you appear for this test.

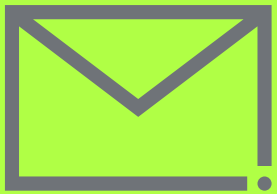


Reliable and high-speed internet connection.

A High-Resolution camera so we can proctor your test.

Dedicated time for the test duration and for the initial registration process.

Further Process



After Day 1 test, we will share the list of shortlisted candidates for Day 2.
Final selected candidates shall be intimated on or before 30 June 21.

Contact Details for this Process

Campus Team, KPIT
campus@kpit.com
Please do not communicate with anyone else.

KPIT does not charge any money from anyone for the Recruitment Process.

Beware of Fraudsters !!!

In case of fraud, KPIT Legal / Campus Team will be unable to help you in any manner.

All the best for this test !

Thank You