

MBZUAI Online Entry Exam Instructions

The 45-minute online entry exam will be fully automated with AI and human proctoring to ensure fairness and transparency.

Please read the following instructions carefully:

Before the exam

- Equipment and browser requirements have to be strictly followed. The exam cannot be conducted if they are not available.
 - Computer
 - Desktop or laptop; you can't use a tablet or mobile device
 - PC: Windows® operating system, versions 10, 8 or 7
 - Required program
 - Download and install the **Secured Browser** ([Click Here](#)) on the computer that will be used during the test.
 - Accept all the permissions while installing the **Secured Browser**.
 - Please make sure to switch on your microphone and camera **prior to opening** the **Secured Browser**.
 - Microphone (internal or external)
 - Must be switched on at full volume during the exam.
 - Webcam (built-in in the computer or external)
 - Should be able to provide a 360 degree view of your test environment, if asked to.
 - Should be switched on during the exam.
 - Fast and un-interrupted internet connection
- In case of forgotten password issues, please click the **Forgot Password** link in the login page, provide the **roll number** (your MBZUAI application number) and **CAPTCHA code**, then submit. You will then receive your password in your registered email address.
- If you face any other issue or need technical support, please email IT_External@mbzuai.ac.ae
- You'll only be given one chance to do the actual exam and no further attempt will be allowed for any reason (e.g. late attendance, internet disconnection, insufficient battery power, power failure, email ID and login key hacking, etc.) so please ensure that all issues related to your equipment and computer system are addressed and resolved before your scheduled exam.
- You're expected to take the test honestly, ethically and with an understanding and compliance to the test rules and instructions.
- Sample exam questions are available on the last pages of this document while the demo video may be viewed through this link: [Click Here](#)

During the exam

- Test environment
 - The exam has to be taken in a private room with proper lighting and not in a public area (e.g. library, park, mall, restaurant, internet cafe, etc.).
 - Your computer equipment has to be placed on a desk during the exam while you are seated on a standard chair with the camera at eye-level.
 - The table and the room should be clear of the following:
 - other people
 - mobile phone
 - tablet
 - recording devices
 - earphones, headset and similar devices
 - notes
 - books
 - study materials
 - food
 - drink
- Clothing and appearance
 - Dress formally and make sure that your face isn't covered.
 - Unnecessary hair accessories and covering are prohibited.
 - Hair covering for religious or cultural reasons will be allowed.
- Proctoring
 - Human proctor
 - There will be a human proctor to monitor the exam.
 - He/she will be there to ensure that exam rules and regulations are implemented and will not be able to provide any kind of support.
 - All technical issues should be addressed and resolved with the customer support team (IT_External@mbzuai.ac.ae) prior to the exam.
 - The proctor will not be able to do the following:
 - admit late attendees
 - reschedule an exam
 - extend the time of an exam once it's done
 - entertain any kind of inquiry during the exam
 - AI proctor
 - Ensure that your computer camera is at always at eye-level.
 - There should be no background noises (e.g. human voice, music, environmental sounds, etc.).
 - Your face should remain within the middle of the computer screen throughout the exam.
 - After **three** instances of the system not detecting your face or hearing background noises, the exam will automatically end. If this happens, you'll not be allowed to retake or schedule another exam.
- Exam proper
 - Log on to the exam page at least 30 minutes prior to your schedule.

- The exam will include questions related to the items below. More information are available on our website: <https://mbzuai.ac.ae/study/admissions>.
 - Math
 - Programming
 - Machine Learning
- **Have your valid passport ready for verification. It should be the same document you've submitted in your online application.**
- Close all computer applications, programs and windows.
- The exam can only be taken through the **Secured Browser**. Make sure that the required software is already available in your computer ahead of time.
- Make sure that you've understood all the rules and instructions prior to commencing the exam. The human proctor will not be able to answer any inquiry related to the instructions or to answering exam questions.
- **The exam duration will only be 45 minutes. The exam will automatically stop at the scheduled end time.**
- **Late arrival and authentication will reduce the exam duration further and will significantly impact your exam results. For instance, if you arrive 15 minutes after the scheduled start time, you'll only have 30 minutes left to complete the exam.**
- You can utilize the calculator available in the **Secured Browser**.
- Minimal use of pen and paper during the exam is advised in order to avoid receiving warnings from the AI and human proctor.
- The exam has to be done in one sitting and only one attempt will be allowed.
- **Answer all questions and don't forget to click the "Submit" button after responding to the last exam item.**
- **When answering questions, you will not be able to go to previous questions.**

After the exam

- Your scores will automatically be forwarded to MBZUAI.
- Final scores will be part of your application file but will not be disclosed to you.
- If you have any question regarding your application, please send an email to admission@mbzuai.ac.ae.



Sample Exam Questions

1. Which of the following is TRUE about Linear Regression and Logistic Regression?

- A. Linear Regression predicts a continuous dependent variable
- B. Logistic Regression predicts a categorical/discrete dependent variable
- C. Both A and B ✓
- D. None of the above

2. Gradient Descent computes derivative of loss function w.r.t

- A. Input
- B. Activation value
- C. Weight ✓
- D. None of the above

3. Find angles (α, β, γ) such that

$$2\sin\alpha - \cos\beta + 3\tan\gamma = 3$$

$$4\sin\alpha + 2\cos\beta - 2\tan\gamma = 2$$

$$6\sin\alpha - 3\cos\beta + \tan\gamma = 9$$

- A. $(\pi/2, 0, \pi/4)$
- B. $(\pi, \pi/2, 0)$
- C. $(\pi/2, \pi, \pi/4)$
- D. $(\pi/2, \pi, 0)$ ✓

4. From a bag of 6 red and 2 blue balls, two balls are drawn consecutively without replacement. What is the probability that the second ball drawn is red?

A. $\frac{3}{4}$ ✓

B. $\frac{5}{8}$

C. $\frac{1}{4}$

D. $\frac{3}{8}$

5. In the worst case, the number of comparisons needed to search a singly linked list of length n for a given element is

- A. $\log_2 n$
- B. $n/2$
- C. $\log_2 n - 1$
- D. n ✓

6. Which of the following WHILE loops prints the same output as this FOR loop

```
sum = 0
counter = 100
for i = 1 to counter
  sum = sum + i
end
print (sum)
```

A. sum = 0
counter = 1
while (counter >=100)
 sum = sum + counter
 counter = counter + 1
end while
print (sum)

B. sum = 0
counter = 1
while (counter <=100)
 sum = sum + counter
end while
print (sum)

C. sum = 0
counter = 1
while (true)
 if (counter ==100)
 break
 end if
 sum = sum + counter
 counter = counter +1
end while
print (sum)

D. sum = 0
counter = 1
while (true)
 sum = sum + counter
 if (counter ==100)
 break
 else
 counter = counter +1
 end if
end while
print (sum)

√