

# Applied Technology Schools

## G06 Admission Exam

The test is in three sections:

Section I is for Mathematics and 45 mins duration (Calculators are **NOT** allowed)

Section II is for English Language and 45 minutes duration

Section III is for Arabic and 30 minutes duration

# **Applied Technology Schools**

## **G06 Sample Admission Exam**

### **Mathematics**

#### **Learning Outcomes Required and Samples**

|                     |                     |                                                  |
|---------------------|---------------------|--------------------------------------------------|
| Exam Specifications | Number of Questions | 18                                               |
|                     | Type of Questions   | Multiple Choice                                  |
|                     | Exam Duration       | 45 minutes                                       |
|                     | Calculators         | Not Allowed                                      |
|                     | Language            | Questions are written both in English and Arabic |

### Learning Outcomes Tested for Entry to Grade 6: Mathematics

The mathematics part of the admission exam is made up of questions that are derived from the below learning outcomes:

1. Solve Multi-step problems involving Addition and Subtraction
2. Fraction Equivalence (Generate equivalent fractions)
3. Add and subtract fractions with like denominators (Understand decomposing fractions)
4. Add and subtract mixed numbers with same denominator (Solve problems involving mixed numbers)
5. Place value and Number Relationships
  - Understand the structure of multi-digit numbers
  - Extend place value to decimals
  - Read, write, compare, order, and round decimals
6. Add and Subtract Decimals
  - Estimate and find exact value of sums and differences of decimals
  - Use partial sums to add decimals and strategies to subtract decimals
  - Solve problems involving addition and subtraction of decimals
7. Multiply Multi-Digit Whole Numbers
  - Understand powers and exponents
  - Understand patterns when multiplying whole numbers by powers of 10
  - Estimate and find exact value of products of multi-digit factors
8. Multiply Decimals
  - Understand patterns when multiplying decimals by powers of 10
  - Estimate and find exact value of products of decimals
9. Divide Whole Numbers
  - Estimate quotients
  - Relate multiplication and division of multi-digit numbers
  - Divide multi-digit whole numbers with zero and non-zero remainders
  - Solve problems involving division

**Sample Questions for Entry to Grade 6: Mathematics**

All questions in the exam will be translated in Arabic as in Question 1 below.

Q2-Q18 in this sample set are only in English for practice.

1. Estimate  $7.203 + 4.598$  by rounding to the nearest hundredth.

قدّر  $7.203 + 4.598$  بالتقريب لأقرب جزء من مئة.

- ✓ A. 11.80
- B. 11.34
- C. 10.92
- D. 10.80

2. Which is the best estimate of  $60.6 + 89.1$ ?

- A. 130
- B. 140
- ✓ C. 150
- D. 160

3. What is the place value of the digit 5 in 2.568 ?

- A. Hundredth
- ✓ B. Tenth
- C. Ones
- D. Tens

4. 42 students are equally distributed in 6 sports groups. How many students are in each group?
- A.  $\frac{1}{7}$  students per group
  - B.  $\frac{1}{6}$  students per group
  - C. 6 students per group
  - ✓ D. 7 students per group
5. Which of the following is a correct way to find  $26.34 + 12.53$ ?
- I.  $20 + 10 + 6 + 2 + 0.3 + 0.5 + 0.04 + 0.03$
  - II.  $26 + 12 + 0.34 + 0.53$
  - III.  $2 + 1 + 6 + 2 + 0.3 + 0.5 + 0.4 + 0.3$
- A. I only
  - B. II only
  - ✓ C. I and II only
  - D. I, II, and III
6. Which of the following represents another way to write 68.253?
- A.  $(6 \times 10) + (8 \times 1) + (2 \times \frac{1}{10}) + (5 \times \frac{1}{20}) + (3 \times \frac{1}{30})$
  - B.  $(6 \times 10) + (8 \times 1) + (2 \times \frac{1}{100}) + (5 \times \frac{1}{200}) + (3 \times \frac{1}{300})$
  - C.  $(6 \times 10) + (8 \times 1) + (2 \times \frac{1}{1000}) + (5 \times \frac{1}{100}) + (3 \times \frac{1}{10})$
  - ✓ D.  $(6 \times 10) + (8 \times 1) + (2 \times \frac{1}{10}) + (5 \times \frac{1}{100}) + (3 \times \frac{1}{1000})$

7. Find the difference:

$$0.6 - 0.42 = \underline{\hspace{2cm}}$$

- A. 0.16
- ✓ B. 0.18
- C. 0.20
- D. 1.02

8. Find the product:

$$352$$

$$\times 43$$

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- A. 14784
- ✓ B. 15136
- C. 15166
- D. 2464

9. What is the quotient of  $264 \div 22$  ?

- A. 11
- ✓ B. 12
- C. 13
- D. 14

10. At a factory, 3,144 pens were made. If the pens need to be packed in boxes and each box holds 24 pens, how many boxes will be needed?

- A. 127
- B. 128
- ✓ C. 131
- D. 133

11. Which of the following completes the below expression:

$$\frac{9}{14} + \frac{8}{14} = ?$$

- ✓ A.  $\frac{17}{14}$
- B.  $\frac{17}{28}$
- C.  $\frac{16}{14}$
- D.  $\frac{16}{28}$

12. Complete the expression below:

$$4\frac{5}{7} + 2\frac{1}{7} =$$

- ✓ A.  $6\frac{6}{7}$
- B.  $6\frac{6}{14}$
- C.  $2\frac{4}{7}$
- D.  $5\frac{6}{7}$

13. Which of the below is equivalent to  $15.13 \times 10^4$ ?

- A. 1513
- B. 15130
- ✓ C.  $151.3 \times 10 \times 10 \times 10$
- D. 0.001513

14. A new pencil is 22.85 centimeters long. A pencil that Ahmed has been using is now 12.73 centimeters long. About how much longer is the new pencil?

- A. 7 centimeters
- B. 8 centimeters
- C. 9 centimeters
- ✓ D. 10 centimeters

15. A taxi service charges AED 57 for a ride from the suburbs to the airport. During one week, the company had 38 fares. How much money did the taxi company make?

- A. AED 627
- B. AED 1,556
- ✓ C. AED 2,166
- D. AED 2,400

16. A sandwich shop uses 0.14 pounds of tomato on each sandwich. How much tomato will the shop need to make 6 sandwiches?

- A. 0.72 pounds
- B. 0.78 pounds
- ✓ C. 0.84 pounds
- D. 0.88 pounds

17. Which sum is equivalent to  $4.8 \times 0.7$ ?

- A.  $280 + 56$
- B.  $28 + 5.6$
- C.  $2.8 + 5.6$
- ✓ D.  $2.8 + 0.56$

18. Which quotient is shown by the partial quotient strategy?

- A.  $48 \div 2,016 = 42$
- ✓ B.  $2,016 \div 48 = 42$
- C.  $2,016 \div 48 = 51$
- D.  $2,016 \div 48 = 60$

$$\begin{array}{r} 48 \overline{) 2,016} \\ \underline{1,920} \phantom{00} 40 \\ 96 \phantom{00} \\ \underline{48} \phantom{00} 1 \\ 48 \phantom{00} \\ \underline{48} \phantom{00} 1 \\ 0 \end{array}$$

# **Applied Technology Schools**

## **G06 Sample Admission Exam**

### **English**

**Learning Outcomes Required and Samples**

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Exam Specifications                           | Two reading passages and 15-20 reading questions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |
|                                               | Types of questions include:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |
|                                               | <ul style="list-style-type: none"> <li>• Skimming</li> <li>• Scanning</li> <li>• Inferring/deducing meaning from context</li> <li>• Finding supporting details</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |
|                                               | There will be 10-15 language usage/grammar questions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |
|                                               | Grammar areas to be assessed may include:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |
|                                               | <ul style="list-style-type: none"> <li>• Adjectives: common and demonstrative</li> <li>• Adverbs of frequency</li> <li>• Comparatives and superlatives</li> <li>• Going to</li> <li>• How much/how many and very</li> <li>• common uncountable nouns</li> <li>• I'd like</li> <li>• Imperatives (+/-)</li> <li>• Intensifiers - very basic</li> <li>• Modals: can/can't/could/couldn't</li> <li>• Past simple of "to be"</li> <li>• Past Simple</li> <li>• Possessive adjectives</li> <li>• Possessive s</li> <li>• Prepositions, common</li> <li>• Prepositions of place</li> <li>• Prepositions of time, including in/on/at</li> <li>• Present continuous</li> <li>• Present simple</li> <li>• Pronouns: simple, personal</li> <li>• Questions</li> <li>• There is/are</li> <li>• To be, including question+negatives</li> <li>• Verb + ing: like/hate/love</li> </ul> |            |
| Exam Duration                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 45 minutes |
| Below are sample questions based on the exam. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |

## READING

### The Day I Tried to Cook

Hi my name is Salem. And my mom Mariam is a great cook. She started cooking when she was three-years-old! I know that sounds silly, but she would **assist** her mother cook. And, now I'm helping my mom cook. Baked chicken is my favorite thing to make because I love chicken.

One day, when mom was unwell. She had the cold and stayed in bed. I tried to make the chicken all by myself. I washed the chicken and put it in a pan in the oven to bake. When the bell rang to tell me the chicken was done, I opened the oven door. Guess what? The chicken was not cooked!

I started to laugh. I laughed and laughed and laughed!

Did you know what I did? I forgot to turn on the oven!

Did you know what I did next? I phoned for pizza to come to our house. Mom was happy that I "cooked" by myself. She was happy that we could eat the pizza together.

Guess what? We will have chicken some other night.

1. Who is Salem? Salem is Mariam's:
  - A. Son
  - B. Sister
  - C. Mom
  - D. Dad
2. When did Mariam start cooking?
  - A. When she tried to cook chicken.
  - B. When she's a great cook.
  - C. When she was three-years old.
  - D. When she was sick.
3. What is Salem's favorite thing to cook?
  - A. Pizza
  - B. Chicken
  - C. Oven
  - D. Pan

4. Why did Salem decide to help his mother?
  - A. She was three years old.
  - B. She was sick.
  - C. She would help her mum cook.
  - D. She was happy to eat pizza.
5. Why did Salem phone for pizza?
  - A. Because he was sick.
  - B. Because he was happy he cooked by himself.
  - C. Because the chicken was washed.
  - D. Because the chicken was not cooked.
6. How did Salem feel when he realized he forgot to turn on the oven?
  - A. He felt it was funny.
  - B. He felt sad.
  - C. He felt very hungry.
  - D. He felt angry.
7. The word “assist” in the first paragraph is similar to:
  - A. silly
  - B. help
  - C. make
  - D. sick
8. Find a word in the passage that means the same as “*sick*”.
  - A. silly
  - B. favorite
  - C. bed
  - D. unwell

### LANGUAGE USAGE

9. Where [are] you from? I am from Abu Dhabi.
10. We [went] to London on holiday.
11. My aunty has two [children], a boy and a girl.
12. There [are] six people in my family.
13. We have an exam today, so we [are studying] hard for it.
14. My [hobby] is swimming.
15. He does not like sweet food. He [never] eats chocolates, cakes or biscuits.
16. Ali is very smart. He is the [smartest] student in his class.
17. I am a doctor. I work in a [hospital].
18. I lost my car keys. I will have to look [for] them or else I’m in trouble!

# **Applied Technology Schools**

## **G06 Sample Admission Exam**

### **Arabic**

#### **Learning Outcomes Required and Samples**

1. كَانَ أَجْدَادُنَا وَأَجْدَادُكُمْ مِنَ الْإِمَارَاتِ وَمِنَ الْخَلِيجِ عُمُومًا أَوْ عَلَى سَوَاحِلِ الْخَلِيجِ الْعَرَبِيِّ يَمْتَنَهُونَ صَيْدَ الْأَسْمَاكِ أَوْ الْغَوْصَ لِلْبَحْثِ عَنِ اللَّؤْلُؤِ، وَقَدْ كَانَ هَذَا فِي حَدِّ ذَاتِهِ ابْتِكَارًا وَإِنْجَازًا فِي ذَلِكَ الزَّمَانِ، نَظَرًا إِلَى مَا يَتَطَلَّبُهُ مِنَ الْمَشَقَّةِ وَالصَّبْرِ فِي رِحَالَاتِ تَرَاوُحٍ بَيْنَ أُسْبُوعَيْنِ إِلَى أَرْبَعَةِ أَشْهُرٍ. وَفِي تِلْكَ الْأَيَّامِ، كَانَتْ مِهْنَةُ الْغَوْصِ بَحْثًا عَنِ اللَّؤْلُؤِ مِنْ أَبْرَعِ الْمِهَنِ وَمَصْدَرِ الرِّزْقِ الْوَفِيرِ عَلَى أَهْلِ الْخَلِيجِ، الْأَمْرُ الَّذِي جَعَلَ أَصْحَابَهَا يُفَكِّرُونَ فِي بَيْعِ اللَّؤْلُؤِ فِي أَسْوَاقِ آسِيَا وَأُورُوبَا، لَا سِيَّمَا الصِّينَ وَالْهِنْدَ وَبَارِيسَ وَلَنْدُنَ.
2. مِنْ ضِمْنِ خُطُواتِ الشَّيْخِ زَايِدٍ - رَحِمَهُ اللَّهُ - الَّتِي أَدْخَلَتْ دَوْلَةَ الْإِمَارَاتِ عَصْرَ الْفَضَاءِ قَبْلَ 40 أَوْ 44 عَامًا، وَتَحْدِيدًا فِي 1975، وَالَّتِي تُعَدُّ أُولَى خُطُواتِ دَوْلَةِ الْإِمَارَاتِ فِي قِطَاعِ الْفَضَاءِ، وَذَلِكَ بِإِفْتِتَاحِ الْمَحْطَّةِ الْأَرْضِيَّةِ لِلاتِّصَالِ بِالْأَقْمَارِ الصَّنَاعِيَّةِ فِي مَنطَقَةِ جَبَلِ عَلِيٍّ، وَكَانَ لَوَالِدِي شَرَفُ الْمِشَارَكَةِ فِي هَذِهِ الْمُنَاسِبَةِ **الْفَذَّة**، وَلَا تَزَالُ لَدَيَّ ذِكْرَى مِنْ هَذَا الْإِفْتِتَاحِ، وَهِيَ عُمْلَةٌ رَمْزِيَّةٌ، وَضِعَ عَلَيْهَا الْقَمَرُ الصَّنَاعِيُّ.
3. لَقَدْ أَدْرَكَ الْمَغْفُورُ لَهُ الشَّيْخُ زَايِدٌ بِذِكَائِهِ وَنَفَازِ بِصِيرَتِهِ أَهْمِيَّةَ هَذَا الْقِطَاعِ الْحَيَوِيِّ، وَاسْتَقْبَلَ الْعَالَمَ رَوَّادِ فَضَاءٍ بَعْدَ رَحْلَةٍ قَامُوا بِهَا إِلَى الْقَمَرِ، ضِمْنَ بَرْنَامِجٍ «أَبُولُو» عَامَ 1976، وَتَأَكَّدَ النَّاسُ حِينَئِذٍ أَنَّ الْإِكْتِشَافَاتِ الْعِلْمِيَّةَ فِي قِطَاعِ الْفَضَاءِ، تُبَشِّرُ بِمُسْتَقْبَلٍ وَاعِدٍ لِلْعِلْمِ وَالْعُلَمَاءِ وَالْبَشَرِيَّةِ.
4. وَمَعَ مَرُورِ الْأَيَّامِ وَدُخُولِ الْعَصْرِ الْحَدِيثِ، تَطَوَّرَتْ أَوَّلًا الصَّنَاعَاتُ التَّقْلِيدِيَّةُ فِي دَوْلَةِ الْإِمَارَاتِ الْعَرَبِيَّةِ الْمُتَّحِدَةِ - بَعْدَ أَنْ عَاشَتْ لَحْظَاتِ عَصْرِ الْإِتِّحَادِ الْمَجِيدِ، ثُمَّ ذَاعَ صَيْتُنَا بِفَضْلِ مِنَ اللَّهِ وَبِدَعَمِ الْهَنْيَاتِ السِّيَاسِيَّةِ وَالْعِلْمِيَّةِ وَالْإِجْتِمَاعِيَّةِ وَالتَّنْمِيَةِ الْبَشَرِيَّةِ وَالْمُسْتَدَامَةِ وَبِجُهِودِ رِجَالٍ وَنِسَاءٍ مَنَّا تَمَيَّزُوا فِي تِلْكَ الْفَتْرَةِ السَّابِقَةِ - ثُمَّ بَدَأَ شَعْبُنَا يُفَكِّرُ **بِرِخْمٍ** فِي تِلْكَ الصَّنَاعَاتِ الَّتِي تَجْلِبُ الرِّفَاهِيَّةَ وَالسَّعَادَةَ إِلَى الْمُجْتَمَعِ. كُلُّ تِلْكَ الْخُطُواتِ أَخَذَتْ بِدَوْلَةِ الْإِمَارَاتِ إِلَى الْمُنَافَسَةِ عَلَى الْمَرَاكِزِ الْأُولَى فِي مَجَالَاتٍ عَدِيدَةٍ، وَمِنْ أَهْمِهَا التَّكْنُولُوجِيَا الْحَدِيثَةُ وَالذَّكِيَّةُ وَدُخُولُ مَجَالِ الْفَضَاءِ، عَبْرَ إِنْشَاءِ مُؤَسَّساتٍ تَخْدُمُ هَذَا الْمَجَالَ، وَإِرْسَالِ أَقْمَارٍ صُنَاعِيَّةٍ أَبْدَعَتْهَا وَصَنَعَتْهَا أَيَادِينَا الْإِمَارَاتِيَّةِ.
5. وَهَكَذَا مِنْ عَصْرِ اللَّؤْلُؤِ إِلَى عَصْرِ الْفَضَاءِ الَّذِي تَسْتَهْلُ فِيهِ الْإِمَارَاتُ أَوَّلَ أَهْدَافِهَا فِي التَّمَيُّزِ وَالْإِبْتِكَارِ، وَدُخُولِ أَوَّلِ رَائِدِ فَضَاءٍ إِمَارَاتِيٍّ، هَزَّاعِ الْمَنْصُورِيِّ، وَزَمِيلِهِ رَائِدِ الْفَضَاءِ سُلْطَانِ الْيَادِيٍّ، فِي مَرَكَبَةٍ تَأْخُذُ أَحَدَهُمَا إِلَى الْمَرَكَبَةِ الدَّوْلِيَّةِ لِلْفَضَاءِ فِي مِهْمَةٍ عِلْمِيَّةٍ، لَا تَسْتَفِيدُ مِنْهَا دَوْلَةُ الْإِمَارَاتِ فَحَسْبَ أَوْ الْعَرَبُ وَحْدَهُمْ، بَلِ الْعَالَمُ كُلُّهُ.

السؤال الأول: القراءة التحليلية: في ضوء فهمك للنص، اختر الإجابة الصحيحة:

|                                                                                                                                                                                     |                                        |                                     |                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|----------------------------------------|
| 1- يُعدُّ هذا النصُّ نموذجًا ل:                                                                                                                                                     |                                        |                                     |                                        |
| السيرة الغريبة                                                                                                                                                                      | القصة                                  | الخطبة                              | العمود الصحفي                          |
| 2- ما العلاقة بين كلمتي (الحديثة) و(القديمة):                                                                                                                                       |                                        |                                     |                                        |
| جناس                                                                                                                                                                                | تضاد                                   | تباين                               | ترادف                                  |
| 3- في ضوء الفقرة الأولى، كان غياب الباحث عن اللؤلؤ يستمر لمدة تبلغ:                                                                                                                 |                                        |                                     |                                        |
| 14 يومًا في حدِّها الأدنى                                                                                                                                                           | 4 أيام في حدِّها الأدنى                | أربعة أشهر في حدِّها الأدنى         | أكثر من أربعة أشهر                     |
| 4- بالاستناد إلى الفقرة الثانية، أول خطوة خطتها دولة الإمارات استعدادًا لعصر الفضاء تمثلت في:                                                                                       |                                        |                                     |                                        |
| تأسيس الاتحاد بقيادة زايد                                                                                                                                                           | افتتاح المحطة الأرضية للأقمار الصناعية | إطلاق القمر الصناعي الإماراتي الأول | إطلاق المركبة التي أقلت هزاعا المنصوري |
| 5- بالاستناد إلى الفقرة الأخيرة، يعود ضمير (هـ) في كلمة (أهدافها) في الجملة: "هكذا من عصر اللؤلؤ إلى عصر الفضاء الذي تستهل فيه الإمارات أول أهدافها في التميز والابتكار، إلى القمر" |                                        |                                     |                                        |
| عصر اللؤلؤ                                                                                                                                                                          | الإمارات                               | عصر الفضاء                          | التميز                                 |
| 6- مفرد كلمة (خطوات) في بداية الفقرة الثانية: "من ضمن خطوات الشيخ زايد - رحمه الله-....."                                                                                           |                                        |                                     |                                        |
| خطوة                                                                                                                                                                                | خطوات                                  | خطيئة                               | خطي                                    |

|                                                                                                             |                    |                 |              |
|-------------------------------------------------------------------------------------------------------------|--------------------|-----------------|--------------|
| 7- بالاستناد إلى الفقرة الأخيرة، فإنَّ الهدفَ من الرحلة الفضائية التي شارك فيها الإماراتيّ هزّاع المنصوري:  |                    |                 |              |
| سياسي                                                                                                       | جغرافي             | علمي            | سياحي        |
| 8- الفقرة التي وردت فيها فكرة أنَّ (الإمارات تحقّق المراكز الأولى في التكنولوجيا الذكيّة ودخول مجال الفضاء) |                    |                 |              |
| الأولى                                                                                                      | الرابعة            | الخامسة         | الثالثة      |
| 9- معنى كلمة (الفدّة) وفقاً لعبارة الفقرة الثانية: "شرف المشاركة في هذه المناسبة الفدّة":                   |                    |                 |              |
| الفريدة                                                                                                     | المستمرة           | المعتادة        | الشائعة      |
| 10- من الأدلة التي وُظفت في الفقرة الثّانية لدعم الأفكار والمعلومات:                                        |                    |                 |              |
| الدليل التقلي                                                                                               | المعادلة الرياضيّة | الإحصاء الموثّق | دليل التاريخ |

السؤال الثاني: التطبيق اللغوي: املأ الفراغ بالخيار المناسب:

1) لسانُ الشَّيخِ يُردّد \_\_\_\_\_ سُبْحَانَ اللَّهِ.  
(-) (؛) (!) (:) (؛)

2) سُبْحَانَ اللَّهِ، ما أبَدَعَ خَلْقَهُ \_\_\_\_\_.  
(-) (؛) (!) (:) (؛)

(3) سأبحر في المكتبة الإلكترونية \_\_\_\_\_ لأُنجز بحثًا علميًا.  
(-) (ء) (!) (:)

(4) أعطى \_\_\_\_\_ زايد قطاع الفضاء أهمية كبيرة لأنه قطاع حيويّ.  
الشيخ الشيخ الشيخ الشيخ

(5) صوّر هزاع \_\_\_\_\_ كُلّها من الفضاء.  
الأرض الأرض الأرض الأرض

انْتَهَتْ الأَسْئَلَةُ، مَعَ دُعَائِنَا لَكُمْ بِالتَّوْفِيقِ وَالتَّمَيُّزِ!