

**THE AGA KHAN UNIVERSITY**

**SAMPLE AKU TEST PAPER 2042**

**Associate of Science in Dental Hygiene**

**Section I**

**English**

**Time allowed: 1 hour**

**Candidate's Name:** \_\_\_\_\_

**Application No:** \_\_\_\_\_

**INSTRUCTIONS:**

The Aga Khan University English test is a sophisticated test of grammar and vocabulary in academic contexts. The test consists of five sub-sections, to be completed in ONE hour.

Candidates may log on to [www.englishlanguagetesting.co.uk](http://www.englishlanguagetesting.co.uk) for additional practice test.

**Please read the following instructions carefully.**

1. Make sure that you write your name and application number in the space on the question paper and OMR answer sheet.
2. Mark ONLY ONE answer to each MCQ. No credit will be given for multiple answers.
3. There are five sub-sections in this question paper.

a. Section 1	15 questions
b. Section 2	12 questions
c. Section 3	15 questions
d. Section 4	09 questions
e. Section 5	09 questions
4. Attempt all questions.
5. Questions can be attempted in any order.

## Name and Identity of the Student

- At the beginning of the Test you will be asked to fill in your name and application number on the answer sheet. An example of what is expected of you is shown below

### Sample Answer Sheet

Full Name:	<b>Laila Khanum</b>					
Date of Birth:	Day	Month	Year	Gender:	Male or Female	
Application Number:	<b>10495</b>			First Language:		
School / College:				Programme Name:	<b>Associate of Science in Dental Hygiene</b>	
Today's Date	<b>27</b>	<b>June</b>	<b>2020</b>	Test Centre:	<b>Karachi</b>	

- Mark ONE answer choice for each question using a pencil like this:



- Only choose one answer for each question.

## Discipline

The University expects honesty from applicants. Dishonest behavior during the Test or violation of instructions will result in irrevocable disqualification of the applicant from entering the selection process.

## SECTION '1'

**There are 15 questions in Section 1.**

Choose the correct answers (A, B or C) and mark them on the answer sheet.

**Look at the example below.** Choose the best word to complete the space:

Asking for a pen

Student A: Do you have a pen?

Student B: Yes, there \_\_\_\_\_ a pen in my bag.

- A. is
- B. does
- C. have

## SECTION '2'

**There are 12 questions in Section 2.**

Choose the correct answers (A, B or C) and mark them on the answer sheet.

**Look at the example below.** Choose the best words to complete the spaces:

The Campus

The University has \_\_\_\_\_ (i) \_\_\_\_\_ very heavily in teaching and learning facilities and \_\_\_\_\_ (ii) \_\_\_\_\_ to ensure that we offer modern, high quality environment in which our students can live and study happily and effectively.

Space (i)

- A. costed
- B. invested**
- C. spent

Space (ii)

- A. accommodation**
- B. accommodates
- C. accommodating

**SECTION '3'**

**There are 15 questions in Section 3.**

Choose the correct answers (A, B, C, D or E) and mark them on the answer sheet.

**Look at the example below.** Choose the word most like the one in italics, in this example the word is registered:

**“When you arrive at the university you will be *registered* at the faculty office.”**  
**Which word is closest to registered?**

- A. Functioned
- B. Participated
- C. Resigned
- D. Recorded**
- E. Estimated

**SECTION '4'**

**There are 9 questions in Section 4.**

Choose the correct answers (A, B, C, D or E) and mark them on the answer sheet.

**Look at the example below.** Choose the word most often used with the one in italics, in this example the word is lounge:

**“Please go to the *lounge*”**  
**Which word is most often used with *lounge*?**

- A. train lounge
- B. meeting lounge
- C. departure lounge**
- D. information lounge
- E. waiting lounge

## SECTION '5'

There are 9 questions in Section 5, each with three or four parts. Decide if each is right or wrong in English and mark them on the answer sheet.

### Example:

Each question has three parts ((i), (ii) and (iii)) or four parts ((i), (ii), (iii) and (iv)). Decide if each is right or wrong in English. None, some or all may be right. Look at the example below. **In this example (i), (iii) and (iv) are RIGHT and (ii) is WRONG.**

(i)	Thank you for completing your application for the University of Newbury. Before you submit your forms, remember to <b>keep</b> a copy for your records.	<b>RIGHT</b>	WRONG
(ii)	Thank you for completing your application for the University of Newbury. Before you submit your forms, remember to <b>remain</b> a copy for your records.	RIGHT	<b>WRONG</b>
(iii)	Thank you for completing your application for the University of Newbury. Before you submit your forms, remember to <b>save</b> a copy for your records.	<b>RIGHT</b>	WRONG
(iv)	Thank you for completing your application for the University of Newbury. Before you submit your forms, remember to <b>make</b> a copy for your records.	<b>RIGHT</b>	WRONG

**THE AGA KHAN UNIVERSITY**

**SAMPLE AKU TEST PAPER 2042**

**Associate of Science in Dental Hygiene**

**Section II**

**Science and Mathematics**

**Time allowed: 1 hours 30 minutes**

**Candidate's Name:** \_\_\_\_\_

**Application No:** \_\_\_\_\_

**INSTRUCTIONS**

**Please read the following instructions carefully.**

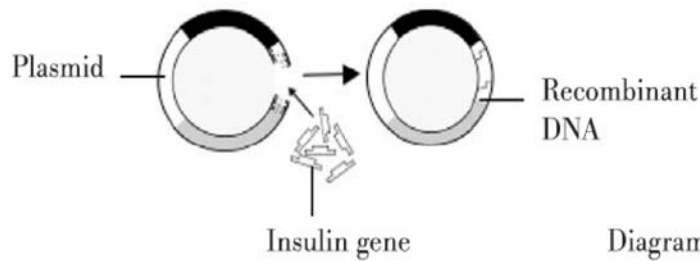
1. Make sure that you write your name and application number in the space above and on the given answer sheet.
2. Mark ONLY ONE answer to each question. No credit will be given for multiple answers.
3. If you change an answer, be sure that you completely erase the old answer before marking your new answer.
4. There will be 60 questions in four sub-sections:

Biology	(15 MCQs),
Chemistry	(15 MCQs),
Physics	(15 MCQs),
Mathematics	(15 MCQs).
5. Attempt all questions.
6. Questions can be attempted in any order.
7. In the Biology, Chemistry and Physics section every wrong answer loses 0.25 marks.

## Biology

**Question 1 refers to the following information:**

Diagram 1 shows a plasmid with an open end and an insulin gene.

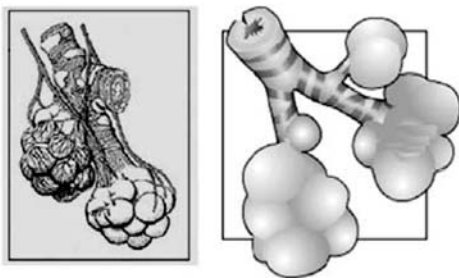


1. Which of the following enzymes seals the insulin gene into the plasmid vector?

- A. RNA polymerase
- B. DNA ligase
- C. Taq polymerase
- D. Endonuclease

A	B	C	D

2. Diagram 2 shows air sacs of a healthy person (A) and a patient (B) suffering from respiratory disorder. Which disease is indicated by diagram 2 of patient (B)?



- A. Tuberculosis
- B. Asthma
- C. Emphysema
- D. Lung cancer

A	B	C	D

## Chemistry

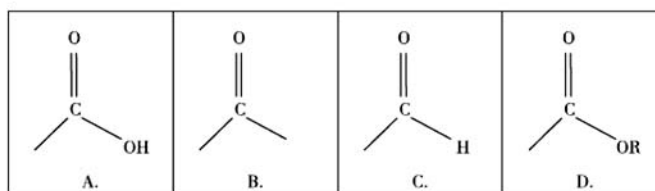
3. Which of the following equations is a correct representation of Boyle's law?

- A.  $V \propto P$
- B.  $V \propto 1/P$
- C.  $V \propto T$
- D.  $V \propto 1/T$

A	B	C	D
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Which of the following represents the correct formula of the ester functional group?

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

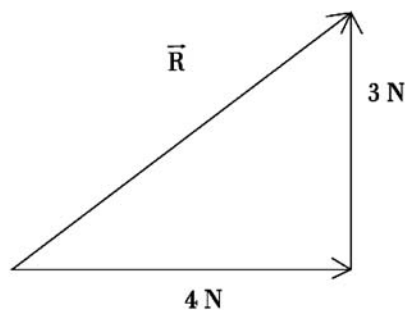


## Physics

5. The resultant of two forces of magnitude 3 N and 4 N acting perpendicularly is:

- A. - 1N
- B. 1N
- C. 5N
- D. 7N

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



6. A water wave has frequency 5 Hz and wave length 0.5 m. Its velocity will be

- A. 0.05 m/sec
- B. 0.15 m/sec
- C. 0.25 m/sec
- D. 2.5 m/sec

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## Mathematics

7. One inch equals 2.54 cm. How many centimeters tall is a 76 inch man?

- A. 20cm
- B. 29.92cm
- C. 193.04cm
- D. 300.04cm

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8. What is the next number in the following pattern?

$$1, \frac{1}{2}, \frac{1}{4}, \frac{1}{8},$$

- A.  $\frac{1}{12}$
- B.  $\frac{1}{14}$
- C.  $\frac{1}{15}$
- D.  $\frac{1}{16}$

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

9. Mr. Aslam sold 35% of his books. He is now left with 520 books. How many books did he have when he began selling the books?

- A. 280
- B. 338
- C. 585
- D. 800

A	B	C	D
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Question 10 asks you to compare two quantities.**

10. Two sacks of rice are for sale at the same price.

Sack (i) contains 54 lbs plus one third of its own weight

Sack (ii) contains 60 lbs plus one quarter of its own weight

Which is the best bargain?

- A. If Sack (i) has more rice than Sack (ii)
- B. If Sack (ii) has more rice than Sack (i)
- C. If both contain the same amount of rice
- D. If the best buy cannot be determined from the information given

A	B	C	D
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>