# Second Term Test N°2 of English

**A/ Comprehension  (7points)**

**Read the text carefully then do the activities**

In the ninth century the Arabs became the chief standard-bearers of science and philosophy.The golden age of Arab science lasted for about two centuries , from roughly 900A.D to 1100A.D. The world owes a great debt of gratitude to the Muslim caliphs for <u>their</u> support for learning during this period.

The Arabs made important contributions to mathematics. The most outstanding work in Arabic in this field was probably the Arithmetic of the Persian Al-Kawarizmi. In this treatise the author introduced a striking innovation _ the number system that we use today and that we call 'Arabic numerals'. The Arabs called <u>them</u> *gobar numbers* . In this system , which Al-Kawarizmi derived from the Hindus , the value of digit depends upon its position in a series of digits . Thus 2 by itself stands for two ; in the series 21 , it stands for 20 . Al-Kawarizmi also wrote a treatise entitled *On Algebra* . It was based to a certain extent on Hindu sources . The name 'algebra' is of Arabic origin ; it comes from 'al-jebr' , meaning ' the union of broken parts'.

The Arabs were greatly interested in astronomy .Caliph Ma'mum built a splendid observatory in Baghdad in the year 829 , and his astronomers made a regular observations of the heavens .One of the greatest among the Arab astronomers was Al-Battani .He revised many false notions in Ptolemy's book *Great Composition* , which was translated into the Arabic under the title of the *Almagest* .

Alchemy had many devotees among the Arabs .The word *alchemy* <u>itself</u> is of Arabic origin . The most famous Arab alchemist was Jabir or Jaber , a Syrian physician who lived in the eighth or ninth century . Jabir perfected new methods of evaporation , filtration and crystallization and he was able to prepare a number of chemical substances , such as alums , alkalis , saltpetre and mercurie oxide .

The Persian-born physician Rhazes( 865 – 925 ) also contributed to literature with his *Book of the Art*. The most famous Arab physicist was Alhazen ( 965 – 1038 ) of Basra. <u>His</u> chief works were the *Treasury of Optics* and *On the Burning Sphere* . Alhazen worked out the laws of reflection ; he experimented with spherical and parabolic mirrors and with magnifying glasses.

( The Book of Popular Science v.2 , pp.299-301 )

1. *Choose the best answer . The text is about :*           *(0.5pts)*

   *a-* Arab Science        *b-* The Arabs        *c-* Popular Science

2. *Say if the following statements are True or False?*           *(2 pts)*

   **a.** The Arabs were only great in science during the golden age.. False
   **b.** The Arabs gave the name *gobar numbers* to what is called now "Arabic numerals'.True
   **c.** Ma'amum was a famous astronomer in his life. False
   **d.** The Arab physicist Alhazen was an Iraqi . True

3. *Answer the following questions according to the text :*           *(03.5pts)*
   **a.** How many years did the golden age last ? 200 Years
   **b.** Name FOUR sciences: Mathematics- astronomy-Physics-Alchemy
   **c.** Name FOUR Arab scientists : Al-Kawarizmi- Al-Battani- Jabir- Rhazes
   **d.** What did Al-Kawarizmi innovate in Mathematics ? The number system that we use today and that we call 'Arabic numerals'
   **e.** What did Jaber bring to Alchemy ? Jabir perfected new methods of evaporation , filtration and crystallization and he was able to prepare a number of chemical substances.

4. *Who or what do the underlined words refer to in the text ?*           *(1pt*
   **their** (§1) the Muslim caliphs   -**them** (§2) Arabic numerals' -**itself** (§4)Alchemy -  **his** (§5) Alhazen

## B/ Text exploration :     (9 pts)

**1. Find in the text words that are closest in meaning to:**     *(2 pts )*
   **a.** a historical period of time *(§1)=Age* - **b.** skies *(§3)heavens* - *c*. wrong *(§3) – false*
**d.** managed to   *(§4)was able to*

**2. Complete the following chart .**     *(1pt)*

| Word | Adjective |
|------|-----------|
| science | ......scientific........................ |
| origin | ....original............................ |
| reflection | ....reflective............................. |
| sphere | ...spherical.............................. |

**3. Rewrite sentence (b) so that it means the same as sentence (a).**     *(2pts)*
1.  a)The Arabs made important contributions to mathematics
    b) Important contributions were made to Mathematics by the Arabs.
2.  a) Before the Islamic civilization became weak, the Arabs had innovated many notions in science.
    b) After the Arabs had innovated many notions in science, the Islamic civilization became weak.
3.  a) The Arabs called them gobar numbers.
    b) They were called gobar numbers by the Arabs.
4.  a) '**Great Composition'** was translated into the Arabic under the title of the *Almagest.*
    b) The Arabs translated '**Great Composition'** into the Arabic under the title of the *Almagest.*

**4. Give the correct form of the verbs between brackets..**     *(2pts)*
   1. After the Arabs (conquer) had conquered many rich provinces , they (become) became powerful .
   2.  When a glass bottle (be fill ) is filled with water and put in the freezer , it ( break ) breaks .
   3.  The Arabs (not prosper) will not prosper in future if they ( not develop) don't develop their economy .
   4. As soons as Tarik Bin Zeyad (cross) had crossed/ crossed the straits of Gibraltar , he (deliver) delivered his famous speech .

**5. Divide the following words into syllables , then mark the stress.**     *(2 pts)*
       Mathematics = ma.the.ma.tics  –            psychology = psy.cho.lo.gy –
       evaporation = e.va.po.ra.tion-            optics = Op.tics

## Written Expression :     (4pts)

   *Topic* : Write a composition about :

### In your opinion ,  what should the Arabs do in order to prosper ?

They should.......(Science – Technology – Industry – Agriculture ......