Usman Institute of Technology
Hamdard University

Admission Test
Information for Applicants

Venue of Test Centre:

ST: 13, Block-7, Gulshan-e-Iqbal, Abul Hasan Isphahani Road, Karachi-75300,
UAN: 111-978-275, Tel: 34978274-75, (PABX) 34994305, 34982464. Website: www.uit.edu

Structure of Test:

- The total duration of the Admission Test will be two hours.
- UIT has not authorized any publication or preparatory classes for this Test.
- Distribution of the questions in various sections is as follows:

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- For each question select the best answer from the given choices A, B, C and D. Indicate your choice of the correct answer for a question by filling in the corresponding circle on the answer sheet. For example, if C is your best choice for question 1 and D for question 2, your sheet should look as follows:

1. A  B  C  D
   O  O  ●  O

2. A  B  C  D
   O  O  O  ●

- **Use of unfair means will lead to disqualification.**
- Use only ball-point or pens on the answer sheet. Use of pencil is not allowed for marking the answers.
- If you want to change your answer for any question then cross the previous answer like × and then put the new answer.
- Please do not do any rough work on the answer sheet. All rough work should be done on a special sheet provided to you.

Discipline

The Institute expects honesty from applicants. Dishonest behaviour during the Test or violation of instructions will result in irrevocable disqualification of the applicants from entering the selection process.
1. If $2-5x < 9$, then
   (A) $x < -7/5$
   (B) $x < 9/5$
   (C) $x < 2/5$
   (D) $x > -7/5$

2. Let $A = \{1, 2, 3\}$, which of the following sets is equal to $A$
   (A) $\{0, 1, 2, 3\}$
   (B) $\{3, 2, 1\}$
   (C) $\{1, 2, 3, 0\}$
   (D) $\{1, 2, 3, 4\}$

3. Suppose $|x-3| < 4$, then
   (A) $-1 < x < 7$
   (B) $-4 < x < 4$
   (C) $-3 < x < 1$
   (D) $x < 7$

4. A line passes through the points $(6, 2)$ and $(9, 8)$, then the slope (or $\tan \theta$) is:
   (A) 8
   (B) 2
   (C) 9
   (D) 6

5. A line that passes through the origin and makes an angle of $45^\circ$ with the x-axis is given by the equation:
   (A) $y = 4.5x$
   (B) $y = x + 1$
   (C) $y = -1$
   (D) $y = x$

6. A circle whose center is the origin and radius is 4 is given by the equation:
   (A) $x^2 + y^2 = 4$
   (B) $x^2 + y^2 = 16$
   (C) $x^2 + y^2 = 0$
   (D) $x^2 + y^2 = 0.1$

7. The value of $\sin (\pi/2 - \theta)$ is:
   (A) $\cos \theta$
   (B) $-\sin \theta$
   (C) $\tan \theta$
   (D) $-\cos \theta$

8. If $\cos \theta = 1/2$, then $\sin \theta$ is equal to:
   (A) $1/3$
   (B) $2/1$
   (C) $\sqrt{3}/2$
   (D) $-1/2$

9. The area of a circle whose radius is 2 cms is:
   (A) $4\pi$ sq. cm
   (B) $16\pi$ sq. cm
   (C) $2\pi$ sq. cm
   (D) $4(\pi/3)$ sq. cm
1. One micro Farad =
   (A) $10^{-6}$
   (B) $10^{-4}$
   (C) $10^{-3}$
   (D) $10^{-2}$

2. The dimension of the physical quantity Force express by
   (A) $LT^1$
   (B) $LT^2$
   (C) $MLT^{-1}$
   (D) $ML^2T^{-2}$

3. The units of angular displacement is
   (A) meter
   (B) Radian
   (C) joule
   (D) watt

4. When three capacitors are connected in series, the equivalent capacitance will be
   (A) increases
   (B) decreases
   (C) remain same
   (D) depend on capacitors

5. According to photo theory of light, energy of photon depend on
   (A) frequency of photon
   (B) wavelength of photon
   (C) velocity of photon
   (D) mass of photon

6. An object whose mass is 100 gm starts from rest and moves with constant acceleration of 20 cm/sec$^2$. At the end of 8 sec its momentum is, in gm-cm/sec,
   (A) 500
   (B) 8000
   (C) 16000
   (D) 64000

7. A change in temperature of 20°C is equivalent to a change in temperature on the Fahrenheit scale of approx.
   (A) $0.9^\circ$
   (B) $11^\circ$
   (C) $6.7^\circ$
   (D) $68^\circ$

8. If the distance between a point source of light and a surface is tripled, the intensity of illumination on the surface will be
   (A) Tripled
   (B) Doubled
   (C) Reduced to
   (D) Reduced to $1/9$

9. Heating a magnet will
   (A) weaken it
   (B) strengthen it
   (C) reverse its polarity
   (D) have no effect
1. It is important that the TOEFL office ______________ your registration.
   (A) Will confirm
   (B) Confirm
   (C) Confirms
   (D) Must confirm

2. As a safety precaution, all city cabdrivers carry only enough money to make change for a __________ bill.
   (A) Ten-dollar
   (B) Ten-dollars
   (C) Tens-dollar
   (D) Tens-dollars

3. __________ that the English Settled in Jamestown.
   (A) In 1607 that it was
   (B) That in 1607
   (C) Because in 1607
   (D) It was in 1607

4. Read the passage below carefully and then choose the appropriate answer to the question.

   Then another problem developed. During the 1600s, the Puritans in England took a particular dislike to soccer. This religious group thought that soccer was a “frivolous,” or time-wasting, entertainment. They also said that soccer disturbed the peace on Sunday, the Lord’s Day. So, there was a new ban on Sunday soccer. Despite the ban, soccer eventually became an accepted sport. It even became part of the school curriculum. In 1863, a meeting of eleven English soccer clubs and schools decided on the official rules of the game. This meeting was the beginning of “The Football Association”. Soon other countries formed football associations. By 1912, there were 21 countries affiliated with the Federation Internationale de Football Association (FIFA). Today FIFA has 208 member associations. Before the 1970s, soccer was considered to be mostly a men’s game. However, FIFA established the Women’s World Cup in 1991. The first Women’s World Cup tournament was played in the People’s Republic of China in 1991. Twelve teams played for the championship. US women’s college teams have also begun to receive varsity status, mostly because of the influence of Title IX, a new law which provides more money for schools that include women’s sports. FIFA estimates that about forty million (40,000,000) women are currently playing football throughout the world. The FIFA “Big Count,” a 2006 soccer census, estimates two hundred sixty five million (265,000,000) male and female soccer players worldwide and five million referees, for a total of two hundred seventy million (270,000,000) people – four percent of the world’s population – actively engaged in soccer.

   According to the passage what marked the beginning of the Football Association (Choose the most appropriate answer from the option given below)

   (A) The Title IX law
   (B) A meeting of soccer clubs
   (C) The 2006 census of players
   (D) None of the above
1. The chemical reaction of alcohols with carboxylic acids form
   (A) Amines  
   (B) Ketones  
   (C) Esters  
   (D) Ethers

2. The popular name of NH₂OH is
   (A) Nitric Acid  
   (B) Ammonium hydroxide  
   (C) Sodium hydroxide  
   (D) Acetic acid

3. Molecular mass of C₆(H₂)₂ is
   (A) 74.1  
   (B) 64.3  
   (C) 79.0  
   (D) 69.6

4. In the periodic classification, the elements are arranged:
   (A) As covalent and ionic  
   (B) As metals and non-metals  
   (C) According to their Atomic weights  
   (D) According to their Atomic numbers

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**General Awareness**

1. Universally used numerals from 0 to 9 are the inventions of
   (A) Arabs  
   (B) British  
   (C) Romans  
   (D) Greek

2. The energy of food is measured in
   (A) Kelvins  
   (B) Calories  
   (C) Watts  
   (D) None of above

3. The famous daily newspaper ‘The Times’ is published from:
   (A) New York  
   (B) London  
   (C) Washington  
   (D) Frankfurt