Name: ..... **Reg. No.: CUI/.....–MMT–...../ATK**

Sample Quiz: Real Analysis I: Fall 2019

Instructions:

- Please choose the most correct option by filling or ticking or crossing the box.

Q. 1. Let E be a subset of an ordered set S and it is bounded above, then ..... exists in S.

- ☐ $\sup E$ may not
- ☐ $\inf E$ doesn't
- ☐ $\inf E$
- ☐ $\sup E$

Q. 2. Consider $\alpha = 3.1415$ and $\beta = \pi$, then

- ☐ $\alpha - \beta > 0$.
- ☐ $\frac{\alpha}{\beta} < 1$.
- ☐ $\alpha \geq \beta$.
- ☐ $\frac{\alpha}{\beta} > 1$.

Q. 3. Let $A : \{x \mid x \in \mathbb{N} \wedge x^2 < 16\} \subset \mathbb{N}$ and U denotes set of upper bounds of A. Then

- ☐ $U = \{5, 6, 7, ...\}$.
- ☐ $U = \{16, 17, 18, ...\}$.
- ☐ $U = \{4, 5, 6, ...\}$.
- ☐ $U = \{3, 4, 5, ...\}$.

Q. 4. Let $p, q \in \mathbb{Z}$ and p divides q^2, then

- ☐ q divides p.
- ☐ p divides q.
- ☐ p divides q^3.
- ☐ $\sqrt{p}$ divides q.

Q. 5. Which is not true about number zero.

- ☐ Even
- ☐ Positive
- ☐ Additive inverse
- ☐ Additive identity

Q. 6. Set of integers is .....

- ☐ field.
- ☐ not bounded set.
- ☐ bounded below.
- ☐ abelian group.