## 9 Lecture - MTH101

## Important Mcqs

1. What is the limit of $f(x)$ as $x$ approaches 3 for the function $f(x)=x+2$ ?
a) 3
b) 5
c) 6
d) None of the above

Solution: b) 5
2. What is the limit of $f(x)$ as $x$ approaches infinity for the function $f(x)=1 / x$ ?
a) 0
b) 1
c) infinity
d) None of the above

Solution: a) 0
3. What is the limit of $f(x)$ as $x$ approaches 2 for the function $f(x)=(x-2) /(x+4)$ ?
a) 2
b) 0
c) 1
d) None of the above

Solution: b) 0
4. What is the limit of $f(x)$ as $x$ approaches -3 for the function $f(x)=|x+3|$ ?
a) -3
b) 0
c) 3
d) None of the above

## Solution: c) 3

5. What is the limit of $f(x)$ as $x$ approaches 0 for the function $f(x)=\sin (x) / x$ ?
a) 1
b) 0
c) -1
d) None of the above

## Solution: a) 1

6. What is the limit of $f(x)$ as $x$ approaches 4 for the function $f(x)=(x-4) /\left(x^{\wedge} 2-16\right)$ ?
a) $1 / 12$
b) $1 / 4$
c) $1 / 8$
d) None of the above

## Solution: b) $1 / 4$

7. What is the limit of $f(x)$ as $x$ approaches -infinity for the function $f(x)=e^{\wedge} x$ ?
a) 0
b) -1
c) infinity
d) None of the above

## Solution: a) 0

8. What is the limit of $f(x)$ as $x$ approaches 1 for the function $f(x)=(x-1) /\left(x^{\wedge} 2-1\right)$ ?
a) $-1 / 2$
b) $1 / 2$
c) 1
d) None of the above

Solution: b) $1 / 2$
9. What is the limit of $f(x)$ as $x$ approaches 2 for the function $f(x)=\left(x^{\wedge} 2-4\right) /(x-2)$ ?
a) 2
b) 0
c) 4
d) None of the above

Solution: c) 4
10. What is the limit of $f(x)$ as $x$ approaches 0 for the function $f(x)=(1-\cos (x)) / x^{\wedge} 2$ ?
a) 0
b) $1 / 2$
c) infinity
d) None of the above

Solution: b) $1 / 2$

