## 11 Lecture - MTH101

## Important Mcqs

1. What is the limit of $f(x)$ as $x$ approaches 2 if $f(x)=x^{\wedge} 2-3 x+2$ ?
A. 1
B. 2
C. 3
D. 4

Answer: D. 4
2. What is the limit of $g(x)$ as $x$ approaches 0 if $g(x)=\sin (x) / x$ ?
A. 0
B. 1
C. -1
D. Does not exist

Answer: B. 1
3. What is the limit of $h(x)$ as $x$ approaches infinity if $h(x)=5 / x$ ?
A. 0
B. 5
C. infinity
D. Does not exist

Answer: A. 0
4. What is the limit of $j(x)$ as $x$ approaches 1 if $j(x)=(x-1) /\left(x^{\wedge} 2-1\right)$ ?
A. 0
B. 1
C. -1
D. Does not exist

Answer: B. 1
5. What is the limit of $k(x)$ as $x$ approaches infinity if $k(x)=(3 x-2) /(4 x+1)$ ?
A. $3 / 4$
B. $2 / 3$
C. $3 / 1$
D. Does not exist

Answer: A. 3/4
6. What is the limit of $f(x)$ as $x$ approaches 0 if $f(x)=(2 x+1) /(x-3)$ ?
A. $1 / 3$
B. $2 / 3$
C. $-1 / 3$
D. Does not exist

Answer: D. Does not exist
7. What is the limit of $g(x)$ as $x$ approaches 2 if $g(x)=\left(x^{\wedge} 2-4\right) /(x-2)$ ?
A. 0
B. 1
C. 2
D. Does not exist

Answer: C. 2
8. What is the limit of $h(x)$ as $x$ approaches 3 if $h(x)=\operatorname{sqrt}(x-3)$ ?
A. 0
B. 1
C. 3
D. Does not exist

Answer: D. Does not exist
9. What is the limit of $j(x)$ as $x$ approaches infinity if $j(x)=e^{\wedge}(-2 x)$ ?
A. 0
B. 1
C. -1
D. Does not exist

Answer: A. 0
10. What is the limit of $k(x)$ as $x$ approaches 1 if $k(x)=(x-1)^{\wedge} 2 /|x-1|$ ?
A. 0
B. 1
C. Does not exist
D. infinity

Answer: C. Does not exist

