Mathematics 3200 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Unit 6: Trigonometric Identities Date:\_\_\_\_\_\_\_\_\_\_\_\_

**Part A: Selected Response:** Place the letter of the correct response in the space provided (9 marks)

1. What are the non- permissible values for *x* for the equation ?

A) 

B) 

C) 

D) 

2. What is the simplified form for ?

A) 

B) 

C) 0

D) 

3. What is the exact value of ?

A) 

B) 

C) 

D) 

4. Which is the simplified form of the trigonometric expression ?

A) 

B) 

C) 

D)

5. Given that , where , what is the exact value of ?

A)  B) 

C)  D) 

6. Solve:  where ?

A) 

B) 

C) 

D) no solution

7. Which is the simplified form of the expression ?

A) 

B) 

C) 1

D) 

8. Which is the simplified form of the trigonometric expression 

A) 

B) 

C) 

D) 

9. Which is the simplified form of the trigonometric expression?

A) 

B) 

C) 

D) 

**Part B: Constructed Response:** Show workings to receive full marks.

9.  and  are both in Quadrant II,  and . Determine the exact value of . (4 marks)

10. Verify the trigonometric identity:  (4 marks)

11. Solve:  where  (4 marks)