Math 3200 Test Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Chapter 8 /31

Part I: Shade the letter of the correct answer on the scantron form provided. (11 Marks)

1. What is written in logarithmic form?

A) B)

C) D)

2. Solve for :

A) B) 4 C) 8 D) 64

3. What is the domain of ?

A) B)

C) D)

4. What is the mapping rule for ?

A) B)

C) D)

5. What is written as a single logarithm?

A) B) C) D)

6. What is the x-intercept of ?

A) -4 B) -3 C) 2 D) 16

7. Solve for :

A) B)

C) D)

8. Solve for :

A) 2 B) C) 10 D)

9. Which function best represents the graph shown below?



A) B)

C) D)

10. What is the inverse of ?

A) B)

C) y D)

11. The equation represents the amount of a radioactive sample remaining after t years. How much time will it take for 15% of the sample to remain?

A) 0.7 years B) 0.9 years C) 8.2 years D) 10.0 years

Part II: Show all workings in the space provided. (20 Marks)

1. Solve for x: (4 mks each)

a) b)

2. Solve for x: (4 mks)

3. Graph the function using a mapping rule and appropriate tables of values. Label any asymptotes. (5 mks)



4. Sound level is measured in decibels using the formula , where is measured in dB and is the sound intensity measured in watts per metre squared (w/m2). Algebraically determine the sound intensity of a lawn mower which has a sound level of 95dB. (3 mks)