MAP2302 Exam 3 Fall 2025 Key

Form	A	B
1	d	c
2	c	a
3	e	e
4	d	b
5	e	e
6	b	e
7	a	d
8	c	b
9	c	c
10	b	a
11	e	a

FR

1. $y(t) = (3/2)e^{2(t-3)}\sin[2(t-3)]u(t-3)$

2. $Y(s) = \dfrac{3-2s}{(s-1)^2},\ s > 1$

3. $y(t) = \cos t - \sin t$

4. a. $y(t) = (t-3)u(t-5) + (5-t)u(t-10)$

b. $Y(s) = e^{-5s}(1/s^2 + 2/s) - e^{-10s}(1/s^2 + 5/s)$

c. $Y(s) = e^{-5(s-1)}(1/(s-1)^2 + 2/(s-1)) - e^{-10(s-1)}(1/(s-1)^2 + 5/(s-1))$

d. piecewise continuous