

### Quiz 1

[1] Find  $B(2, -\frac{1}{2})$

[2] Find the integrals:

$$(a) \int_0^{\infty} \sqrt{x} \cdot e^{-2x} dx$$

$$(b) \int_0^{\pi/2} \sqrt{\cot y} dy$$

$$(c) \int_0^1 \sqrt{x^2 - x^3} dx$$

[3] Find the L.T of the following:

$$(a) f(t) = 3 + t + \sin t$$

$$(b) f(t) = t \cdot \sin t$$

$$(c) f(t) = e^{3t} \cdot \cos 2t$$

$$(d) f(t) = 4 + t^3 \cdot \delta_2(t)$$

$$(e) f(t) = (t - 1)^2$$

$$(f) f(t) = (t - 1)^2, \quad t > 1$$

### Quiz 1

[1] Find  $B(2, -\frac{1}{2})$

[2] Find the integrals:

$$(a) \int_0^{\infty} \sqrt{x} \cdot e^{-2x} dx$$

$$(b) \int_0^{\pi/2} \sqrt{\cot y} dy$$

$$(c) \int_0^1 \sqrt{x^2 - x^3} dx$$

[3] Find the L.T of the following:

$$(a) f(t) = 3 + t + \sin t$$

$$(b) f(t) = t \cdot \sin t$$

$$(c) f(t) = e^{3t} \cdot \cos 2t$$

$$(d) f(t) = 4 + t^3 \cdot \delta_2(t)$$

$$(e) f(t) = (t - 1)^2$$

$$(f) f(t) = (t - 1)^2, \quad t > 1$$

### Quiz 1

[1] Find  $B(2, -\frac{1}{2})$

[2] Find the integrals:

$$(a) \int_0^{\infty} \sqrt{x} \cdot e^{-2x} dx$$

$$(b) \int_0^{\pi/2} \sqrt{\cot y} dy$$

$$(c) \int_0^1 \sqrt{x^2 - x^3} dx$$

[3] Find the L.T of the following:

$$(a) f(t) = 3 + t + \sin t$$

$$(b) f(t) = t \cdot \sin t$$

$$(c) f(t) = e^{3t} \cdot \cos 2t$$

$$(d) f(t) = 4 + t^3 \cdot \delta_2(t)$$

$$(e) f(t) = (t - 1)^2$$

$$(f) f(t) = (t - 1)^2, \quad t > 1$$

## Quiz 2

[1] Find the inverse Laplace transform of the following:

$$(a) F(s) = \frac{3}{s} + \frac{1}{s^3} \quad (b) F(s) = \frac{1}{(s-2)^3} + \frac{s}{s^2+4} \quad (c) F(s) = \frac{s}{s^2-4} + \frac{1}{s^2+3}$$

[2] Solve the equation:  $y' + 4y' + 3y = e^{-t}$ ,  $y(0) = y'(0) = 1$

[3] Find the Fourier series of the function:

$$f(x) = x + 1, \quad -1 \leq x \leq 1, \quad f(x+2) = f(x)$$

## Quiz 2

[1] Find the inverse Laplace transform of the following:

$$(a) F(s) = \frac{3}{s} + \frac{1}{s^3} \quad (b) F(s) = \frac{1}{(s-2)^3} + \frac{s}{s^2+4} \quad (c) F(s) = \frac{s}{s^2-4} + \frac{1}{s^2+3}$$

[2] Solve the equation:  $y' + 4y' + 3y = e^{-t}$ ,  $y(0) = y'(0) = 1$

[3] Find the Fourier series of the function:

$$f(x) = x + 1, \quad -1 \leq x \leq 1, \quad f(x+2) = f(x)$$

## Quiz 2

[1] Find the inverse Laplace transform of the following:

$$(a) F(s) = \frac{3}{s} + \frac{1}{s^3} \quad (b) F(s) = \frac{1}{(s-2)^3} + \frac{s}{s^2+4} \quad (c) F(s) = \frac{s}{s^2-4} + \frac{1}{s^2+3}$$

[2] Solve the equation:  $y' + 4y' + 3y = e^{-t}$ ,  $y(0) = y'(0) = 1$

[3] Find the Fourier series of the function:

$$f(x) = x + 1, \quad -1 \leq x \leq 1, \quad f(x+2) = f(x)$$

## Quiz 2

[1] Find the inverse Laplace transform of the following:

$$(a) F(s) = \frac{3}{s} + \frac{1}{s^3} \quad (b) F(s) = \frac{1}{(s-2)^3} + \frac{s}{s^2+4} \quad (c) F(s) = \frac{s}{s^2-4} + \frac{1}{s^2+3}$$

[2] Solve the equation:  $y' + 4y' + 3y = e^{-t}$ ,  $y(0) = y'(0) = 1$

[3] Find the Fourier series of the function:

$$f(x) = x + 1, \quad -1 \leq x \leq 1, \quad f(x+2) = f(x)$$

### **Quiz 3**

[1]Find the Fourier series of the function:

$$f(x) = |x|, \quad -\pi \leq x \leq \pi, \quad f(x + 2\pi) = f(x)$$

[2]Solve the P.D.E :  $u_x + u_y = x$

### **Quiz 3**

[1]Find the Fourier series of the function:

$$f(x) = |x|, \quad -\pi \leq x \leq \pi, \quad f(x + 2\pi) = f(x)$$

[2]Solve the P.D.E :  $u_x + u_y = x$

### **Quiz 3**

[1]Find the Fourier series of the function:

$$f(x) = |x|, \quad -\pi \leq x \leq \pi, \quad f(x + 2\pi) = f(x)$$

[2]Solve the P.D.E :  $u_x + u_y = x$

### **Quiz 3**

[1]Find the Fourier series of the function:

$$f(x) = |x|, \quad -\pi \leq x \leq \pi, \quad f(x + 2\pi) = f(x)$$

[2]Solve the P.D.E :  $u_x + u_y = x$

### **Quiz 3**

[1]Find the Fourier series of the function:

$$f(x) = |x|, \quad -\pi \leq x \leq \pi, \quad f(x + 2\pi) = f(x)$$

[2]Solve the P.D.E :  $u_x + u_y = x$