Figure 3.2: Percent change (as compared to untreated control) in kidney weight of ethylene glycol - treated rats on 28 day of treatment.
Figure 3.3: Percent change (as compared to untreated control) in urinary calcium excretion of ethylene glycol - treated rats.

Figure 3.4: Percent change (as compared to untreated control) in urinary oxalate excretion of ethylene glycol - treated rats.
Figure 3.5: Percent change (as compared to untreated control) in urinary phosphate excretion of ethylene glycol-treated rats.

Figure 3.6: Percent change (as compared to untreated control) in urinary magnesium excretion of ethylene glycol-treated rats.
Figure 3.7: Percent change (as compared to untreated control) in urinary total protein excretion of ethylene glycol - treated rats.
Figure 3.8: Percent change (as compared to untreated control) in serum calcium content of ethylene glycol - treated rats.

Figure 3.9: Percent change (as compared to untreated control) in serum phosphate content of ethylene glycol - treated rats.
Figure 3.10: Percent change (as compared to untreated control) in serum magnesium content of ethylene glycol - treated rats.
Figure 3.11: Percent change (as compared to untreated control) in serum total protein content of ethylene glycol-treated rats.
Figure 3.12: Percent change (as compared to untreated control) in calcium content in kidney homogenate of ethylene glycol - treated rats.

Figure 3.13: Percent change (as compared to untreated control) in oxalate content in kidney homogenate of ethylene glycol - treated rats.
Figure 3.14: Percent change (as compared to untreated control) in phosphate content in kidney homogenate of ethylene glycol - treated rats.

Figure 3.15: Percent change (as compared to untreated control) in total protein content in kidney homogenate of ethylene glycol - treated rats.
Figure 3.16: Effect of cystone/plant extracts on percent change (as compared to untreated control) in body weight of ethylene glycol - treated rats.
Figure 3.17: Effect of cystone/plant extracts on percent change (as compared to untreated control) in kidney weight of ethylene glycol - treated rats.
Figure 3.18: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary calcium of ethylene glycol - treated rats.

Figure 3.19: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary oxalate of ethylene glycol - treated rats.
Figure 3.20: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary excretion of phosphate of ethylene glycol - treated rats.

Figure 3.21: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary excretion of magnesium of ethylene glycol - treated rats.
Figure 3.22: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary total protein excretion of ethylene glycol - treated rats.
Figure 3.23: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary creatinine excretion of ethylene glycol - treated rats.

Figure 3.24: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary uric acid excretion of ethylene glycol - treated rats.
Figure 3.25: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary urea excretion of ethylene glycol - treated rats.
Figure 3.26: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary total bilirubin excretion of ethylene glycol - treated rats.

Figure 3.27: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary direct bilirubin of ethylene glycol - treated rats.
Figure 3.28: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urinary indirect bilirubin excretion of ethylene glycol - treated rats.
Figure 3.29: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum calcium content of ethylene glycol - treated rats.

Figure 3.30: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum phosphate content of ethylene glycol - treated rats.
Figure 3.31: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum magnesium of ethylene glycol - treated rats.
Figure 3.32: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum sodium of ethylene glycol - treated rats.

Figure 3.33: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum potassium content of ethylene glycol - treated rats.
Figure 3.34: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum creatinine of ethylene glycol-treated rats.

Figure 3.35: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum uric acid of ethylene glycol-treated rats.
Figure 3.36: Effect of cystone/plant extracts on percent change (as compared to untreated control) in urea content in serum of ethylene glycol - treated rats.
Figure 3.41: Effect of cystone/plant extracts on percent change (as compared to untreated control) in ALT activity of ethylene glycol - treated rats.

Figure 3.42: Effect of cystone/plant extracts on percent change (as compared to untreated control) in AST activity of ethylene glycol - treated rats.
Figure 3.37: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum total protein of ethylene glycol - treated rats.
Figure 3.38: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum LPO of ethylene glycol - treated rats.

Figure 3.39: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum SOD activity of ethylene glycol - treated rats.
Figure 3.40: Effect of cystone/plant extracts on percent change (as compared to untreated control) in serum TAC of ethylene glycol - treated rats.
Figure 3.43: Effect of cystone/plant extracts on percent change (as compared to untreated control) in ADH activity in liver of ethylene glycol - treated rats.
Figure 3.44: Effect of cystone/plant extracts on percent change (as compared to untreated control) in calcium content in kidney of ethylene glycol - treated rats.

Figure 3.45: Effect of cystone/plant extracts on percent change (as compared to untreated control) in oxalate content in kidney of ethylene glycol - treated rats.
Figure 3.46: Effect of cystone/plant extracts on percent change (as compared to untreated control) in phosphate content in kidney of ethylene glycol - treated rats.
Figure 3.47: Effect of cystone/plant extracts on percent change (as compared to untreated control) in LPO in kidney of ethylene glycol - treated rats.

Figure 3.48: Effect of cystone/plant extracts on percent change (as compared to untreated control) in total protein content in kidney of ethylene glycol - treated rats.
Figure 3.49: Effect of cystone/plant extracts on percent change (as compared to untreated control) in GSH content in kidney of ethylene glycol - treated rats.

Figure 3.50: Effect of cystone/plant extracts on percent change (as compared to untreated control) in TAA content in kidney of ethylene glycol - treated rats.
Figure 3.51: Effect of cystone/plant extracts on percent change (as compared to untreated control) in CAT activity in kidney of ethylene glycol - treated rats.

Figure 3.52: Effect of cystone/plant extracts on percent change (as compared to untreated control) in SOD activity in kidney of ethylene glycol - treated rats.
Figure 3.53: Effect of cystone/plant extracts on percent change (as compared to untreated control) in GPx activity in kidney of ethylene glycol - treated rats.

Figure 3.54: Effect of cystone/plant extracts on percent change (as compared to untreated control) in GR activity in kidney of ethylene glycol - treated rats.
Figure 3.55: Effect of different concentrations of sodium oxalate (mM) on calcium oxalate crystallization in artificial urine.

Figure 3.56: Effect of various concentrations of cystone (mg/mL) along with sodium oxalate (50 mM) on calcium oxalate crystallization in artificial urine.
Figure 3.57: Effect of various concentrations of *B. ciliata* (mg/mL) along with sodium oxalate (50 mM) on calcium oxalate crystallization in artificial urine.

Figure 3.58: Effect of various concentrations of *D. biflorus* (mg/mL) along with sodium oxalate (50 mM) on calcium oxalate crystallization in artificial urine.
Figure 3.59: Light microscopic photographs of calcium oxalate crystals in artificial urine at 360 min:

(A) Sodium oxalate (50 mM)

(B) Cystone (10 mg/mL) along with sodium oxalate (50 mM)

(C) B. ciliata (10 mg/mL) along with sodium oxalate (50 mM)

(D) D. biflorus (10 mg/mL) along with sodium oxalate (50 mM)
Figure 3.60: Reducing abilities of plant extracts and cystine

Figure 3.61: Superoxide radical scavenging activity of plant extracts and cystine
Figure 3.62: DPPH radical scavenging activity of plant extracts and cystone

Figure 3.63: Hydrogen peroxide radical scavenging activity of plant extracts and cystone
Figure 3.64: Nitric oxide radical scavenging activity of plant extracts and cystone
Figure 3.65: Effect of sodium oxalate on lipid peroxidation in rat kidney homogenate

Figure 3.66: Effect of plant extracts along with sodium oxalate (500 µg/mL) on lipid peroxidation in rat kidney homogenate
Figure 3.67: Effect of sodium oxalate on SOD activity in rat kidney homogenate

Figure 3.68: Effect of plant extracts along with sodium oxalate (500 µg/mL) on SOD activity in rat kidney homogenate
Figure 3.69: Effect of sodium oxalate on catalase activity in rat kidney homogenate

Figure 3.70: Effect of plant extracts along with sodium oxalate (500 µg/mL) on catalase activity in rat kidney homogenate
Figure 3.71: Chromatogram of standard gallic acid

Figure 3.72: Chromatogram of extract of *B. ciliata*
Figure 3.73: Chromatogram of gallic acid spiked in extract of *B. ciliata*.

Figure 3.74: Chromatogram of standard quercetin.
Figure 3.1: Percent change (as compared to untreated control) in body weight of ethylene glycol - treated rats.
Figure 3.75: Chromatogram of extract of *D. biflorus*

Figure 3.76: Chromatogram of quercetin spiked in extract of *D. biflorus*