**Noida Institute of Engineering & Technology Gr Noida**

**B.Tech-II SEM**

**Assignment sheet 2 (Unit-II) (Mathematical Foundations-II)**

Q1. Solve the simultaneous equations.

Q2. Solve.

Q3. Solveintegral.

Q4. Solve.

Q5. Solve by variation of parameters.

Q6. By changing the independent variable solve.

Q7. Solve

Q8. Apply the method of variation of parameters to solve.

Q9. Apply method of variation of parameters to solve.

Q10. A body executes damped forced vibrations given by the equation, solve the equation for both the case, when.

Q11. An alternative E.M.F. Eis applied to a circuit at *t = 0*. Given the equation for the current *i* as, find the current *i* when

Q12. In an L-C-R circuit, the charge *q* on a plate of condenser is given by, the circuit is tuned to resonance so that.If initially the current *i* and charge *q* be zero, show that, for small value of *R/L*, the current in the circuit at time *t* is given by *(Et/2L)sinpt*.

**Answers**

1. .
2. ,
3. .
4. Case I: If

If