Q.34 Explain the super position theorem.

Q.35 Describe the split range control system.

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

Q.36 Explain the temperature process control system by using a feedback and feed forward control system.

Q.37 Write the difference between feed back and feed forward control system.

Q.38 Write a short notes of Black-less, Hysteresis, nonlinearity, resolution.

Roll No. .....

4th Sem. / IC

Sub : Advanced Control System

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

Q.1 Control variable is denoted by

a) R(s) b) C(s)

c) H(s) d) B(s)

Q.2 A system is to be linear, if obey the principle of

a) Homogeneity b) Superposition

c) Both A & B d) None of these

Q.3 In Feedforward control system measure, the

a) Manipulated variable b) Control variable

c) Load variable d) None of these

Q.4 Smallest value of input is detectable is known as

a) Sensitivity b) Linear System

c) Cascade System d) Resolution

Q5. The number of loop in cascade control system

a) 1 b) 2

c) 3 d) 4

Q.6 In ratio control the stream whose flow rate is not under control is called as

a) Open stream b) Closed stream

c) Good stream d) Wild stream

Q.7 The Software used in PLC programing

a) RsLogix b) Root Locus

c) Bode plot d) Pascal

Q.8 Friction which exits when the moving part is just about to start is known as

a) Rolling friction b) Static Friction

c) Running friction d) None of these

Q.9 Manipulated variable is also known as

a) Input variable b) Output variable

c) Load variable d) None of these

Q.10 The human brain is made up of Processing Unit known as

a) Networks b) Locus

c) Nucleus d) Neurons

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define feedforward.

Q.12 In feedback control system, feedback present (Yes/No)

Q.13 Control variable is also known as output Variable(Yes/No)

Q.14 Lab view is a _____.

Q.15 What is load variable.

Q.16 Write two applications of artificial intelligence.

Q.17 Write two application of AI.

Q.18 What is Backlash.

Q.19 Define Non-linearity.

Q.20 What is neuro-fuzzy logic system.

SECTION-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

Q.21 Explain the generalized block diagram of instrumentation & control system.

Q.22 Write two temperature sensor name and its application.

Q.23 What is feed forward control system.

Q.24 Define single loop and multi loop control system.

Q25 Explain generalized block diagram of neuro-fuzzy logic system with its application.

Q.26 Write down about ANN (Artificial Neural Networks).

Q.27 Explain the SCADA software and Lab-view software.

Q.28 Explain the cascade control system.

Q.29 Write a short note on Robotics.

Q.30 Explain the degree of freedom.

Q.31 Explain the different types of friction mechanism.

Q.32 Explain the ratio control system.

Q.33 Describe the feed forward control system with one suitable example.