TRADE TEST OF CRAFT INSTRUCTOR
(SEMESTER SYSTEM)
SEPTEMBER - 2017

TRADE GROUP: VII (ELECTRONIC MECHANIC, MECHANIC RADIO & TV, IT & ESM, COMPUTER HARDWARE & NETWORKING MAINTENANCE)

SUBJECT: ENGINEERING DRAWING

MARKS: 100
TIME: 4 HRS

Note: Attempt All the questions.

1. a) Draw electronic symbol for the following -
   i) Zener diode  ii) 4x1 Multiplexer  iii) UJT
   iv) OP-Amp - 741  v) RTD
b) Draw electrical symbol (IEC and IEEE standard) for the following -
   i) AC and DC battery  ii) Induction motor
   iii) Solenoid contactor  iv) Voltage source
   v) Generator
c) Draw the circuit connection (diagram) of full wave voltage multiplier.
d) Draw the free hand sketch of any two hand tools used in electrical and electronics lab.
e) Draw the connection of inverting integrator and differentiator using OP-AMP circuit.
f) Draw the circuit diagram of Wien bridge oscillator using transistor.

2. a) Draw the connection of full adder using two half adder and gates. (25)
   b) Draw the diagram of AC and DC generator. (10)

   OR

   a) Draw the logic circuit of the following function using basic gates. (15)
   \[ Y = AC(D+E) + DE + A + AD + (D + E) \bar{C} \]
b) Draw the constructional diagram for LVDT passive inductive transducer. (20)

3. Draw (3D view) and label the controls & features of a typical top loading washing machine. (35)

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