OP42

Second Semester Examination-2018
M.Sc. PHYSICS
Paper Code: PHS 205

Electronics -II

(PRACTICAL)

Full Marks : 50   Time: 3 Hours

The figures in the right hand margin indicate full marks. Candidates are required to give their answers in their own words as for as practicable. Everyone must attempt any one question set.

Full Marks: 40
Practical Note Book: 5
Viva Voice: 5

1. Design a window comparator and study its characteristics.

2. Design a Monostable multivibrator circuit with IC-555 and compare the practical valves with theoretical one.

3. Design a Colpitts oscillator and calculate the oscillation frequency compare the result with the reading from oscilloscope.

4. Design a 4 bit ripple counter and design a MOD-10 counter from it.

5. Determine the Band gap energy of a semiconductor using P-N junction.

6. Design a circuit using OPAMP and determine the slow rate of an OPAMP.

7. Two numbers are store in B and C registers. Write and execute a program to find out the sum and stored the result in the memory location XX 30 (H).

8. Two HEX numbers are stored at memory location 'X' and '(X+1)',
    Write and execute a program to compute the AND of the two numbers and the
    result at location '(x+2)'.

9. Store 8B (H) in B register store B8(H) in C register, operate OR between these
    two numbers and stored the result in H register.

10. Three numbers are stored in memory location X onwards, write and execute the program to arrange the numbers in reverse direction.

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