PRACTICAL EXAMINATION:

- Duration of Practical examination is **2** hours.
- Practical examination is of **30** marks.
- One experiment should be conducted during the practical examination.
- Minimum practical attendance required to take up practical examination is **75%**.

MARK ALLOTMENT.		
1.	**Demonstration experiment** : Student has to identify one asked component among the given and has to write the circuit symbol & its specifications.	4 marks
2.	**Initial write up**. Circuit diagram(mentioning component values), tabular column, specimen graph if any.	4 marks
3.	**Performance**. Building the circuit, conducting the experiment.	7 marks
4.	**Calculations** and graph if any*.	4 marks
5.	**Result**.	1 mark
6.	**Viva - Voce** **	4 marks
7.	**Practical record** ***	6 marks
TOTAL :		30 marks

* Marks allotted for calculations and graph if any should be added to the performance part in the case of digital experiment (or wherever applicable).

** Four questions pertaining to conducting experiment should be asked in the presence of both the examiners.

*** Alloting of practical record marks is as follows.

Sl.No	% of experiments performed and recorded	Maximum marks to be awarded
1	≥ 91%	6
2	≥81% to 90%	5
3	≥71% to 80%	4
4	Between 41% and 70%	3
5	40% & below 40%	0

LIST OF PRACTICAL QUESTIONS FOR THE PRACTICAL EXAMINATION[new syllabus].

FIRST PUC ELECTRONICS [FROM THE YEAR 2013-2014].

DEMONSTRATION EXPERIMENTS.

1. **Identify the given accessories, meters and equipments.**
2. **Identify the given components for their specifications.**
3. **Identify hardware components for their specifications.**
4. **Identify the part numbers for the given components.**
5. **Demonstrate browsing method of learning on passive and Active components information.**

Performance experiments.

UNIT - 1

NIL…..

UNIT - 4

1. Identify the color bands for the given components, and find the value.

UNIT-2

2. Draw the circuit diagram of ohms law with component values, verify the law for R=V/I, V=IR AND I=V/R. Draw V-I characteristics of ohms law.
3. verify KCL and KVL with relevant circuit diagram.
4. With a neat circuit diagram verify Thevinins theorem.

UNIT-3

5. Using CRO demonstrate in taking readings for peak voltage, peak to peak voltage, rms voltage ,time period, frequency for a sinusoidal wave. Peak value of voltage, time period, frequency for square wave.

UNIT-5

6. Determine the resonant frequency, bandwidth and Q factor for series resonance circuit.
7. Determine the cutoff frequency from the frequency response of RC Low pass filter.
8. Determine the cutoff frequency from the frequency response of RC High pass filter.

UNIT-6

9. Determine the forward resistance of a semiconductor diode.
10. Draw the characteristics of a zener diode.
11. Conduct an experiment on zener diode as a voltage regulator, Line regulator and load regulator.
12. Describe an experiment to study Diode positive clipper and Positive clamper circuit.
13. Conduct an experiment on HWR to verify Vdc=Vm/3.14 and display input/output waveforms.
14. Conduct an experiment on BR to verify Vdc =2Vm/3.14,display of input and output waveforms on CRO and shunt capacitor filter, with Display of filtered output waveforms on CRO.

15. Construct fixed regulators using discrete components,+12 v and -12v.
16. Construct an adjustable +ve regulator 1.25v-14v using LM317 and Discrete components.

UNIT-8

17. Verify the truth tables of OR and NOR gates using discrete components.
18. Verify the truth tables of AND and NAND gates using discrete Components.
19. Construct an Astable Multivibrator using IC 555, and verify for frequency and duty cycle.

UNIT-7

20. Conduct an experiment to draw input and output characteristics of a transistor in CE mode.