

OLD
Part II 3-Tier
2017
COMPUTER SCIENCE
(Honours)

PAPER—VA (Set-I)

(PRACTICAL)

Full Marks : 50

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Answer any two questions taking one from each Section
(Lottery Basis).

Section—I

(Analog Circuits)

Answer any one question : 20

1. Design a full wave bridge rectifier with a single output. Study its voltage regulation. Study its ripple factor and percentage of regulation.

[Circuit-10, Data-06, Discussion-04]

(Turn Over)

2. Construct a low pass active filter using OPAMP.

[Ckt-10, Data-06, Discussion-04]

3. Design a square wave Oscillator using 555 astable multivibrator.

[Ckt-10, Data-06, Discussion-04]

4. Design a circuit for OPAMP as comparator and Schmidt trigger.

[Ckt-10, Data-06, Discussion-04]

5. Study the use of Zener diodes.

[Ckt-10, Data-06, Discussions-04]

Section—II

(Digital Electronics)

Answer any one question : 20

Marks distribution for each question :

(Circuit-10, Data-06, Discussion-04)

1. Design a magnitude comparator using NAND gates only. 20
2. Design a full subtractor circuit using only NOR gates.

3. Design J. K. master slave flip flop using NAND gates.
4. Design a decade counter using J. K. master slave flip-flop.
5. Design a MOD-16 counter using T flip-flop.

Laboratory Note Book : 5

Viva Voce : 5
