

V.P. & R.P.T.P SCIENCE COLLEGE, V.V.NAGAR

T.Y.B.Sc. Sem-V EXAMINATION

SUB. CODE:-US05CELE02

Digital Systems

DATE:-04/10/2017

TIME:-11:00 am to 12:30 pm

MARKS-25

- Q-1 Choose correct answer [3]
- Registers are made up of _____
(A) Flip-flops (C) Capacitor
(B) Resistors (D) None of these
 - In bidirectional register data can be shifted from left to right and right to _____
(A) Left (C) Right
(B) Up (D) None of these
 - _____ is a basic comparator
(A) X-NOR (C) AND
(B) XOR (D) None of these
- Q-2 Short answer type question. (any two) [04]
- Draw the logic diagram of 4-Bit Parallel-in-Parallel-out simple shift register.
 - Draw the logic diagram of 4 Stage Johnson Counter
 - Draw the logic symbol of 74LS83 and label it .
- Q.3 List different types of data transmission in shift register and explain its working in detail drawing diagram. [06]
- OR
- Q.3 Draw the neat logic diagram of 4-bit controlled buffer register and explain its working in detail. [06]
- Q.4 Give an account of 4-bit Bidirectional register and explain its working in detail. [06]
- OR
- Q.4 List applications of shift register and explain any two in detail. [06]
- Q.5 Explain TWO's complements addition and subtraction using parallel adders. [06]
- OR
- Q.5 Give an account of comparator. [06]

