

B.Sc. DEGREE END SEMESTER EXAMINATION - OCTOBER/NOVEMBER 2018**SEMESTER – 1: COMPUTER APPLICATIONS (CORE COURSE)****COURSE: 15U1CRCAP1: FUNDAMENTALS OF DIGITAL SYSTEMS**

*(Common for Regular 2018 Admission, Improvement 2017&
Supplementary/ /2016/2015 Admissions)*

Time: Three Hours

Max. Marks: 75

PART A

*Answer **all** questions. Each question carries **1** mark*

1. Define HTTP.
2. Define Browsers with example.
3. Define parity bit.
4. Write down the 2's complement of 10110.
5. Define Multiplexer.
6. An 'n' variable k map has how many cells.
7. Define K map
8. What you mean by race around condition?
9. Define cache memory.
10. What is registers?

(1 x 10 =10)

PART B

*Answer **any eight** questions. Each questions carries **2** marks*

11. Write down the functions of operating system.
12. Define multi purpose mail extension.
13. Write short note on ASCII
14. Define BCD number system with example
15. What you meant by signed magnitude form?
16. Draw XOR gate with truth table
17. Explain Duality theorem
18. Difference between latch and flip flop
19. Define synchronous counter
20. Compare static and dynamic RAM

(2 x 8 =16)

PART C

*Answer **any five** questions. Each questions carries **5** marks*

21. Draw the functional unit of a computer
22. Subtraction using 2's complement
 - a) 11001-10110
 - b) 110111-1011

23. Explain logic gate with diagram and truth table.
24. Explain with logic diagram the working of 4 to 1 multiplexer
25. Write the rules and laws of Boolean algebra
26. Explain parity generator and checker
27. Explain the organization of ROM memory (5 x 5 = 25)

PART D

*Answer **any two** questions. Each questions carries **12** marks*

28. Explain different type of number systems
29. Explain shift registers with one or two applications
30. Explain different types of flip flops and its working
31. Explain full adder and half adder (12 x 2 = 24)
