G.R. No.	

PAPER CODE	U223 – 212 (ESE)

May 2023 (ENDSEM) EXAM
S.Y. B. TECH. (AI & DS) (AY 2022-23 SEMESTER - II)
COURSE NAME: ADVANCE DATA STRUCTURE
COURSE CODE: ADUA22202
(PATTERN 2020)

Time: [1Hr]   [Max. Marks: 30]

(*) Instructions to candidates:
1) Use of scientific calculator is allowed
2) Use suitable data where ever required
3) All questions are compulsory

Question No.	Question Description	Max. Marks
Q.1	a)) How splay tree is beneficial over other self balancing or self adjusting trees? Justify your answer with example.	[4]
	b) Build Red Black tree from given Data 52,9,67,45,22,3,46,12,78,33	[6]
	OR	
	c) Perform following operations on B tree of order m=3 Insert: 45,12,34,2,56,33,11,67,98,47,5 Delete: 11,56	[6]
Q.2	a)) Create Standard (Multiway) trie from given data { big,bihar,bird,birth,song,sound,soap,soar,sonar } And convert it to compact trie.	[4]
	b)) Apply Knuth Morris Pattern matching algorithm To solve the example given below. Text: abcbababcabbcaabcbacbaa Pattern: abbcaa	[6]
	OR	
	c) Compare and Contrast Brute force with Boyer Moore pattern matching algorithm with example.	[6]

Q.3

a) Discuss different file opening modes in C++ with suitable example. **[4]**

b) Data of student records with fixed size with large amount, which type of file system you use to store this data and why? Justify your answer. **[6]**

OR

c) Discuss the issues and solutions with example to handle fixed length and variable length records in file handling. **[6]**