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Mid-Term Examinations – November 2021

Programme	: BTech	Semester	: Fall 2021-22
Course	: Introduction to Problem Solving and Programming	Code	: CSE1021
Faculty	: Dr. Vikas Panthi	Slot/ Class No. :	A11+A12+A13/0078
Time	: 1 ½ hours	Max. Marks	: 50

Answer all the Questions

Q.No.	Sub. Sec.	Question Description	Marks
1		Design the algorithm and pseudo code to advise the user student as to which course he/she is eligible for admission on the basis of marks/grades in the following courses:	10

Full Time Courses	Minimum Grades
Science, Mathematics, Economics	A (or marks 80% and above)
Social Sciences	B (or marks 65% and above)
Languages	C (or marks 50% and above)

Also, draw the flow chart of your algorithm.

Q.No.	Question Description	Marks
2	Design an algorithm to check the given number is prime number or not. a) Draw flow chart. b) Count the operations required to compute your algorithm. c) Give the Best Case, Average Case and Worst Case.	10
3	Code a python program for list manipulation a) To add new elements to the end of the list b) To reverse elements in the list c) To display same list elements multiple times d) To concatenate two list. e) To sort the elements in the list in ascending order.	10
4 (a)	Discuss the various operations that can be performed on a tuple and dictionary (minimum 5) with real time case study.	5
(b)	Explain in detail about the various operators in python with suitable case study. Explain about loop control statement(break, continue, pass)	5
5	Convert the following numbers from base 10 to base 16- (a) $(2020)_{10}$ (b) $(2020.65625)_{10}$ Convert the following numbers from base 10 to base 8- (c) $(1032)_{10}$ (d) $(1032.6875)_{10}$	10

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