भारतीय प्रौद्योगिकी संस्थान तिरुपति
TIRUPATI

# Indian Institute of Technology Tirupati

Renigunta Road, Tirupati 517506, AP

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**CS3500 Operating Systems Lab - Low Level Memory Management**

1. (25 marks) Files to understand: memory.h, getmem.c, freemem.c, Create a custom command named rollnumber_lab8a_memstat that does the following:
   (a) Print the total available stack space, and heapspace (no additional information to be printed).
   (b) Create a new stackspace of 1024 bytes, and new heap space of 20 bytes.
   (c) Print the available stack space, and available heapspace after the above step.
   (d) Print the difference in available stack space, and difference in available heap space (before and after the creation of the respective creation of stack and heap spaces).
2. (20 marks) Create a rollnubmer_lab8b.c file, and create a few 2 global initialized, 2 global uninitialized variables. Write a shell command rollnumber_lab8b_memorysize that does the following:
   (a) Size of the text code segment
   (b) Size of the global initialized variables
   (c) Size of the global uninitialized variables

Note:

- In the main folder of rollnumber_lab7, attach all the .c, .txt files (if any), and screenshot images (if any).
- Presentation carry 5 marks.
- Improper naming conventions followed would result in considerable deduction of marks.