Lab 4

**pointers, pointers to pointers. array of pointers, pointers to structures**

*These exercises are to be done using a virtual ubuntu image . This is essential as you will be expected to use the same in the lab exam which is scheduled for next week.*

a) Write a simple program that demonstrates the relationship between: variables; pointers and pointers to pointers. **Explain each line with appropriate comments.**

b) Create an array to hold 10 strings. Prompt the user to enter the 10 strings and print them out the largest string. (Ideally use pointer arithmetic to transverse the array)

c) write a program that prompts the user to:

1. *enter* the details of an employee using one function
2. display the details of an employee using another function

until the user enter, a sentinel value of your choice, to exit the program. {hint need to use pointers to structure to add (modify ) the contents of a structure.}

/\* Structure definitions \*/

**struct date**

{

int day;

int month;

int year;

};

typedef struct date DATE;

**struct personnel**

{

int number;

char surname[25];

char first\_name[25];

DATE dob;

int dept;

DATE joined;

};

typedef struct personnel EMPLOYEE;