

QUESTION BANK

SUB: COMPUTER SCIENCE(083)

CHAPTER 8 Linked List, Stack, Queue

4 Mark Questions

1 Write a function in C++ to perform a PUSH operation in a dynamically allocated stack considering the following: struct node

```
{ int x,y;  
Node *Link;  
};
```

2 Write a function in C++ to perform a DELETE operation in a dynamically allocated queue considering the following description: struct Node

```
{ float U,V;  
Node *Link;  
};  
class QUEUE  
{  
Node *Rear, *Front; public:  
QUEUE() { Rear =NULL; Front= NULL;}  
void INSERT ( ); void  
DELETE ( );  
~QUEUE ( );  
};
```

3 Write a function in C++ to perform a PUSH operation in a dynamically allocated stack considering the following : struct Node

```
{  
int X,Y;  
Node *Link;  
};  
class STACK  
{  
Node * Top; public:  
STACK() { TOP=NULL;}  
void PUSH( ); void  
POP( );  
~STACK( );  
};
```

4 Define function stackpush() to insert nodes and stackpop() to delete nodes for a linked list implemented stack having the following structure for each node:

```

struct Node {
char name[20];
int age;
Node *Link;
};
class STACK {Node
* Top; public:
STACK( ) { TOP=NULL;}
void stackpush( ); void
stackpop( );
~STACK( ); };

```

2 Write a function in C++ to perform a insert operation in a dynamically allocated queue considering the following description: struct Node

```

{ float U,V;
Node *Link;
};
class QUEUE
{
Node *Rear, *Front; public:
QUEUE( ) { Rear =NULL; Front= NULL;}
void INSERT ( ); void
DELETE ( );
~QUEUE ( );
};

```

Q Write a function Insert() to insert an integer in a Array implemented as a Circular Queue. Q Write a function Insert() to delete an integer in a Array implemented as a Circular Queue.

q Convert the postfix notation to infix notation

T , F,AND,F,T,OR,NOT,OR

Q Convert the given expression into postfix notation using stack:

$-A \wedge B - (P / Q * R)$