

**COMPUTER SCIENCE**  
**CLASS XII**  
**ASSIGNMENT-PRACTICALS**

- Q1 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(STRING)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE.  
CREATE A MENU THAT DISPLAYS THE FOLLOWING OPTIONS  
1. QUERY  
2. REPORT  
OPTION 1 DISPLAYS THE DETAILS OF THE EMPLOYEES AFTER TAKING THE Number OF THE EMPLOYEE FROM THE USER .  
OPTION 2 GIVES THE O/P IN THE REPORT FORM AS FOLLOWS  
NO. NAME BASIC HRA TOTAL (BASIC+HRA)
- Q2 A BLOOD BANK MAINTAINS THE DATA OF ITS DONARS IN A STRUCTURE AS  
NAME  
DATE OF BIRTH(STRUCTURE)  
PHONE NO  
BLOOD GROUP (CHAR)  
AGE  
CREATE A FILE STORING THE DETAILS OF 5 DONARS . PRINT THE FILE. .  
ADD A NEW DONAR IN THE FILE AT NTH POSITION WHOSE DETAILS ARE TAKEN FROM THE USER AND PRINTS THE NEW FILE ALSO .
- Q3 CREATE A CLASS STUDENT HAVING FOLLOWING DATA MEMBERS-  
NAME  
MARKS IN 2 SUBJECTS  
CREATE A FILE STORING DETAILS OF 5 STUDENTS IN A CLASS. PRINT THE FILE.  
COMPUTE TOTAL MARKS SECURED BY EACH STUDENT AND HIS AVERAGE PERFORMANCE. ALSO CALCULATE TOTAL MARKS SECURED BY ALL STUDENTS IN EACH SUBJECT AND THEIR AVERAGE CLASS PERFORMANCE IN EACH SUBJECT. PRINT THE REPORT AS FOLLOWS:-  
NAME SUB1 SUB2 TOTAL AVG  
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TOTAL  
AVG/SUBJECT
- Q4 AN AUTOMOBILE COMPANY MAINTAINS THE RECORD OF ITS CARS AS FOLLOWS  
CAR CODE(INT)  
CAR MODEL(STRING)  
CAR COLOUR(STRING)  
DATE OF RELEASE OF MODEL(STRUCTURE)  
CREATE A FILE STORING THESE DETAILS IN A CLASS FOR 5 CARS. . PRINT THE FILE.  
ADDS A NEW CAR IN THE FILE AT 3<sup>RD</sup> POSITION WHOSE DETAILS ARE TAKEN FROM THE USER AND PRINTS THE NEW FILE ALSO .

- Q5 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE.  
DELETE THE EMPLOYEE DETAILS FROM THE FILE WHOSE NUMBER IS TAKEN FROM THE USER  
PRINT THE NEW FILE ALSO.
- Q6 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .  
INCREASE THE BASIC SALARY BY 10 % OF THOSE EMPLOYEES WHOSE SALARY IS LESS THAN1000. PRINT THE NEW FILE ALSO
- Q7 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE IN THE FORMATTED FORM ALONG WITH TOTAL SALARY.  
SEARCH FOR THE EMPLOYEE IN THE FILE WHOSE NUMBER IS TAKEN FROM THE USER.IF FOUND PRINT THE DETAILS ELSE PRINT EMPLOYEE NOT FOUND(USE BINARY SEARCH).
- Q8 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE  
ADD THE SECOND NAME OF ALL EMPLOYEES AT THE END OF FIRST NAME.  
PRINT THE NEW FILE ALSO
- Q9 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE.  
SORTS THE FILE ACCORDING TO EMPLOYEE'S NO USING BUBBLE SORT METHOD.PRINT THE SORTED FILE.
- Q10 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)

- CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE.  
SORTS THE FILE ACCORDING TO EMPLOYEE'S NO USING SELECTION SORT  
METHOD.PRINT THE SORTED FILE.
- Q11 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE  
FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE  
SORTS THE FILE ACCORDING TO EMPLOYEE'S NUMBER USING INSERTION  
SORT METHOD.PRINT THE SORTED FILE.
- Q12 A COMPANY MAINTAINS THE RECORD OF ITS EMPLOYEES WITH THE  
FOLLOWING DETAILS STORED IN A C++ CLASS:-  
EMPLOYEE NUMBER  
EMPLOYEE NAME(String)  
BASIC SALARY(FLOAT)  
HRA(FLOAT)  
CREATE A FILE STORING THESE DETAILS OF 5 EMPLOYEES .PRINT THE FILE.  
INCREMENTS THE BASIC SALARY BY 10% OF ALL THE EMPLOYEES IN THE FILE.  
PRINT THE MODIFIED FILE.
- Q13 WRITE A C++ PROGRAM THAT CREATES A TEXT FILE "A.DAT" WHICH CONTAINS  
5 LINES OF TEXT AND PRINTS IT.IT THEN CREATES ANOTHER FILE "B.DAT" AND  
COPIES A IN B SUCH THAT  
1. ALL UPPERCASE CHARACTERS OF A ARE REPLACED BY LOWERCASE  
2. ALL COMMAS ARE REPLACED BY BLANKS .PRINT THE FILE B ALSO
- Q14 WRITE A C++ PROGRAM THAT CREATES A TEXT FILE "A.DAT" WHICH CONTAINS  
5 LINES OF TEXT AND PRINTS IT.IT THEN CREATES ANOTHER FILE "B.DAT" AND  
COPIES A IN B SUCH THAT  
1. EVERY SEQUENCE OF CONSECUTIVE BLANKS IN "A"IS REPLACED BY SINGLE  
BLANK IN "B".  
2. COUNT AND PRINT NO. OF SPACES DROPPED IN THE NEW FILE AND TOTAL  
NO OF SPACES IN FILE "A".PRINT THE FILE B ALSO.
- Q15 WRITE A C++ PROGRAM THAT CREATES A TEXT FILE "A.DAT" WHICH CONTAINS  
INTEGERS . COPY THE FILE IN B.DAT SUCH THAT ONLY EVEN NUMBERS ARE  
COPIED. ALSO COPY "A.DAT" IN "C.DAT" SO THAT "C.DAT" CONTAINS THE  
SUCCESSOR OF NUMBERS STORED IN "A.DAT"
- Q16 STACKS ARE STORED AS LINKED LISTS. STORE THE FOLLOWING DETAILS OF 5  
STUDENTS STORED IN A STRUCTURE.  
ROLLNO.  
NAME  
MARKS  
DEFINED A CLASS , " STACK" :- THAT HAS PUSH AND POP MEMBER FUNCTIONS  
FOR THE STUDENTS.  
PRINT THE STACK IN THE REVERSE ORDER OF INPUT.DELETE TWO ELEMENTS  
FROM STACK AND ADD A NEWELEMENT IN THE STACK AND PRINT THE NEW  
STACK AFTER EVERY STEP .
- Q17 QUEUES ARE STORED AS LINKED LISTS. STORE THE FOLLOWING DETAILS OF 5  
STUDENTS, EACH DEFINED IN A STRUCTURE AS:-  
ROLLNO.  
NAME

MARKS

DECLARE A CLASS QUEUE THAT HAS MEMBER FUNCTIONS FOR THE QUEUE OPERATIONS.PRINT THE QUEUE. TAKE A NEW RECORD FROM THE USER.PRINT THE NEW QUEUE . ALSO DELETE THE FIRST ELEMENT IN THE QUEUE AND PRINT THE QUEUE AFTER EVERY STEP .

- Q18 STACKS ARE STORED AS ARRAYS. STORE THE FOLLOWING DETAILS OF 5 STUDENTS, EACH DEFINED IN A CLASS , IN A STACK :-  
ROLLNO.  
NAME  
MARKS  
PRINT THE STACK IN THE REVERSE ORDER OF INPUT.DELETE TWO ELEMENTS FROM STACK AND ADD A NEW ELEMENT IN THE STACK AND PRINT STACK AFTER EVERY STEP .
- Q19 QUEUES ARE STORED AS ARRAYS. STORE THE FOLLOWING DETAILS OF 5 STUDENTS, EACH DEFINED IN A CLASS , IN A QUEUE:-  
ROLLNO.  
NAME  
MARKS  
PRINT THE QUEUE. TAKE A NEW RECORD FROM THE USER.PRINT THE NEW QUEUE . ALSO DELETE THE FIRST ELEMENT IN THE QUEUE AND PRINT THE QUEUE AFTER EVERY STEP .
- Q20 CIRCULAR QUEUES ARE STORED AS ARRAYS. STORE THE FOLLOWING DETAILS OF 5 STUDENTS, EACH DEFINED IN A CLASS , IN A QUEUE:-  
ROLLNO.  
NAME  
MARKS  
PRINT THE QUEUE. TAKE A NEW RECORD FROM THE USER.PRINT THE NEW QUEUE . ALSO DELETE THE FIRST ELEMENT IN THE QUEUE AND PRINT THE QUEUE AFTER EVERY STEP .
- Q21 CIRCULAR QUEUES ARE STORED AS LINKED LISTS. STORE THE FOLLOWING DETAILS OF 5 STUDENTS, EACH DEFINED IN A STRUCTURE AS:-  
ROLLNO.  
NAME  
MARKS  
DECLARE A CLASS QUEUE THAT HAS MEMBER FUNCTIONS FOR THE QUEUE OPERATIONS.PRINT THE QUEUE. TAKE A NEW RECORD FROM THE USER.PRINT THE NEW QUEUE . ALSO DELETE THE FIRST ELEMENT IN THE QUEUE AND PRINT THE QUEUE AFTER EVERY STEP .
- Q22 STORE N NUMBERS IN FILE "A.DAT" AND M NUMBERS IN "B.DAT" IN ASCENDING ORDER. CREATE "C.DAT" SUCH THAT IT CONTAINS RECORDS OF BOTH FILES IN ASCENDING ORDER.