

Assignment No: 9404p.8-2 (Pass-II Macroprocessor)

- i) Sitte: Design suitable idata structure and implement pass 2:

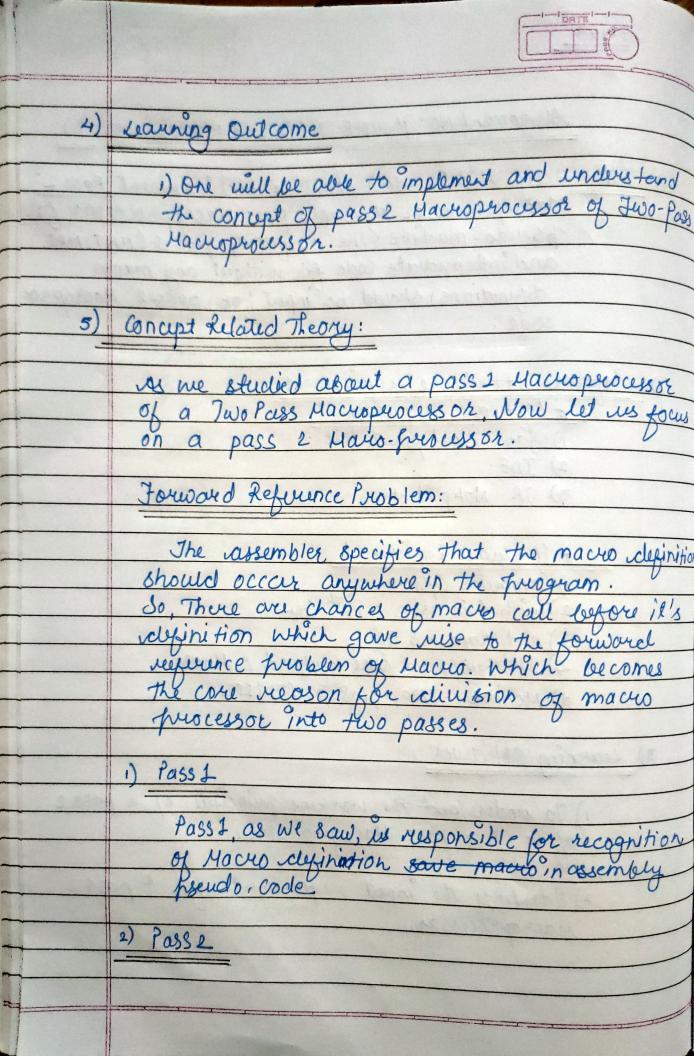
 Macroprocessor of a +100 pass Hacroprocessor for

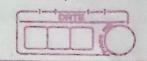
 The output of pass & (HNI, MPI,

 and intermediate code file without any macro

 abginations) should be input for pass-2 Hochsprocessor.
- 2) Software 1+tardware suguirement

 1) Java Deulspmut kit.
 2) IDE
 3) OR Notiped ++.
 - * Hordware Requirement
 - 1) Computer System. 2) with processor: 15th Gen
 - 3) and from , 8 98
 - 4) I10 peripheral like keybard & Mouse
 - 5) Monitor: 720p / 1080p fHP/ IPS.
- 3) Learning Objectives
 - 1) To understand the working principle of a pass 2 of a Two-poss Macroprocessor.
 - 2) Identify the input requirements for = pass 2 racroprocessor.





expansion.

Data Structures required for pass 2 Macroprocessor.

1) COPY FILE

This file contains the output given from pass I macroprocessor.

2) MNT

It stords for Macus Name Table and it is used for micognizing Macus Names.

3) MOT

It stands for Macus Definition Table and it is used for performing macus expansion.

4) MD1P

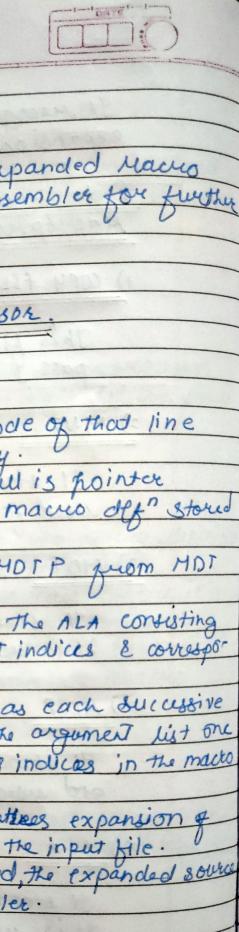
It stands for Macro Definition Table pointer and used to point the index of MDT.

5) ALA

It stands for Argument List Array.

It is used to replace the index notation by

its actual value.



6) ESC

It is used to store the expanded reacro processing.

Algorithm for Pass 2 Macroprocessor

i) Staut

2) read code line by line.

3) for Each line check it op-code of that line matches any of the MNI entry.
4) It match found (i-e when call is pointer

called MOTE to corresponding macris off" stored in MDT.

5) Then obtain initial value of MOTP from MOT

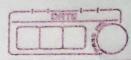
inclex field of MNT entry.

6) The macro expander prepare the ALA consisting of a toble of dummy argument indices & correspondent of a reguments to the call.

7) Reading preoceeds from MDT, as each successive line is read, The values form the argument list one substituted for dummy arguments indices in the macks defination.

8) Reading MEND line in MPT terminatives expansion of 9) When END pseudo-op encountered, the expanded source

program in given to the assembler.



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| 6) | Conclusion |
| | |
| | Alredoustood the working of a pass 2 assembles of a twopass assembles. Also unclerated how to implement and simulate the process. |
| | of a twopass assembler. Also understood how |
| | to implement and simulate the priocess. |
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| 7) | Répuences. |
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