

S.D.E.
M.C.A. Sem - VI : WINTER - 2018
SUBJECT : COMPREHENSIVE EXAMINATION (CONVENTIONAL TYPE)

Day : Monday
Date : 03/12/2018

W-2018-4830

Time : 02.00 PM TO 05.00 PM
Max. Marks : 100

N.B.:

- 1) Attempt **ANY FIVE** questions.
 - 2) Figures to the right indicate **FULL** marks.
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- Q.1** Main memory consists of operating system at head. [20]
Below it 25 k hole, then some part of memory in use.
Below it 35 k hole, then some part of memory in use.
Below it 19 k hole, then some part of memory in use and below it 16 k hole.
A request of 17 k process is made by the operating system.
Explain the concept and draw memory structure in case of:
i) Best fit ii) Worst fit iii) First fit iv) Next fit.
- Q.2** Define array. Write an algorithm to remove duplicate elements from it. [20]
- Q.3** Explain commands in Linux for: [20]
a) Working with directories d) Filters
b) Finding files e) Checking disk usage
c) Directory permissions
- Q.4** Explain rules to draw DFD. Illustrate it with appropriate example. [20]
- Q.5** Explain with neat diagram OSI model of computer network. [20]
- Q.6** What is normalization? Explain 1NF, 2NF 3NF with example. [20]
- Q.7** Explain stack as ADT. Implement it using C. [20]
- Q.8** a) Explain design of basic computer. [10]
b) What are the ordered pairs in the relation represented by the directed graph [10]
shown in figure?