



# VIT<sup>®</sup>

**Vellore Institute of Technology**  
(Deemed to be University under section 3 of UGC Act, 1956)

**School of Computer Science and Engineering**  
**Fall Semester, CAT II Exam -2018**

Course	: B.Tech (Common to all batches)	Slot	: C2+TC2
Subject	: <b>Human Computer Interaction</b>	Year	: II, III & IV
Subject Code	: <b>CSE4015</b>		
Duration	: 90 Minutes	Max. Marks	: 50

\*\*\*\*\*

**Answer All the Questions**

1. Consider the following sentence, "A proper and efficient algorithm always enhances the efficiency of the face recognition systems".
  - a. Perform KLM for the given scenario using mouse based operations and keyboard based operations to strike out every third word of the given sentence which has to be replaced by \*\*\*. **[8 Marks]**
  - b. Which operations are having lesser execution time to find out the total execution time? **[2 Marks]**
2. Create a GOMS description of the task of photocopying a paper from a journal. Discuss the issue of closure in terms of your GOMS description. **[10 Marks]**
3. Scenario given below demonstrates the additional behavior of the new phone. Draw the STN to add the new recall facilities of the new phone. List and justify briefly any such design decisions that are required or any other design issues that become apparent.

**[10 Marks]**

**Scenario (new phone only)**

Steeve decides to ring a friend in his electronic phone book.

1. Steeve presses the left arrow key
2. The phone display says 'phone book'.
3. He presses 'YES'
4. The phone display says 'recall'
5. He presses 'YES'
6. The phone display says 'pos?' (Requesting position in phone book)

7. Steeve enters the shortcut digit for his friend.
8. The digit appears on the phone display
9. Steeve presses 'YES'
10. The phone display says 'calling'

4.

- a. Draw a JSD for the below specification:

Link: <https://vtopbeta.vit.ac.in/vtop/>

- If the credentials are valid, the user will be able to access the account
- But if the user forgets the password he/she can click "forgot" which will lead to the following chain of events( Ignore other options on the page)
- User is asked to enter id number or email address. On clicking next,
- User is asked to enter OTP /barcode on his/her id card.
- On clicking next, a text message will be sent to user, which contains the password reset code. User has to enter the password reset code received, new password and confirm new password by re-entering it.
- On clicking next, it goes to login page for new login [5 Marks]

- b. Design the Petri net model for q.no. 3.

[5 Marks]

5. Assume that you are a part of editing a Movie from a remote place. The crew members are present in different parts of the world. As an editor, the process has to be carried out in the presence of all the crew members. Suggest a suitable mechanism for having the discussion to carry out the process smoothly with the help of a computer mediated communication system. (hint: Highlight the features you would incorporate to handle the entire process effectively).

[10 Marks]

\*\*\*\* All the best \*\*\*\*