NIVIQURE AndroidApp - NIMHANS battery

✓ *Please refer "NIMHANS ECT Manual.pdf" –Pages 62 to 68 (as per PDF booklet) → Pages 54 to 60 (as per the Manual numbering).*

✓ *The Android App will be directly downloaded to the Smartphone / Tablet → Please send the User's Email ID.*

The Android App is NOT meant to be freely downloaded and used easily by anyone and everyone. It is meant to be used by Doctors/ Psychiatrists / Health professionals.

1. This App is not meant to be given to the patient. This App is not a toy or a quiz for the individual to treat it as a pastime. Moreover, it is not meant for the patient to repeat the test to 'improve' on his/ her scoring…

2. App has been designed in such a way that the test result is saved only for the last session. This ensures that an individual is not meant to keep tab of his performance – it is the job of the care provider.

3. This App is to be shared from Niviqure private cloud drive. It is not made available on Google Play / Store.

In some devices, the device does NOT permit downloading from 'unknown sources' or it seeks permission. Niviqure has let this design stay with this limitation – this will ensure that this App is not casually loaded and operated.
Please go to Settings → App → B4ECT → Switch ON and give all permissions.

How to use App?

The Android B4ECT App has been designed with basic functionality of including all the questionnaire.
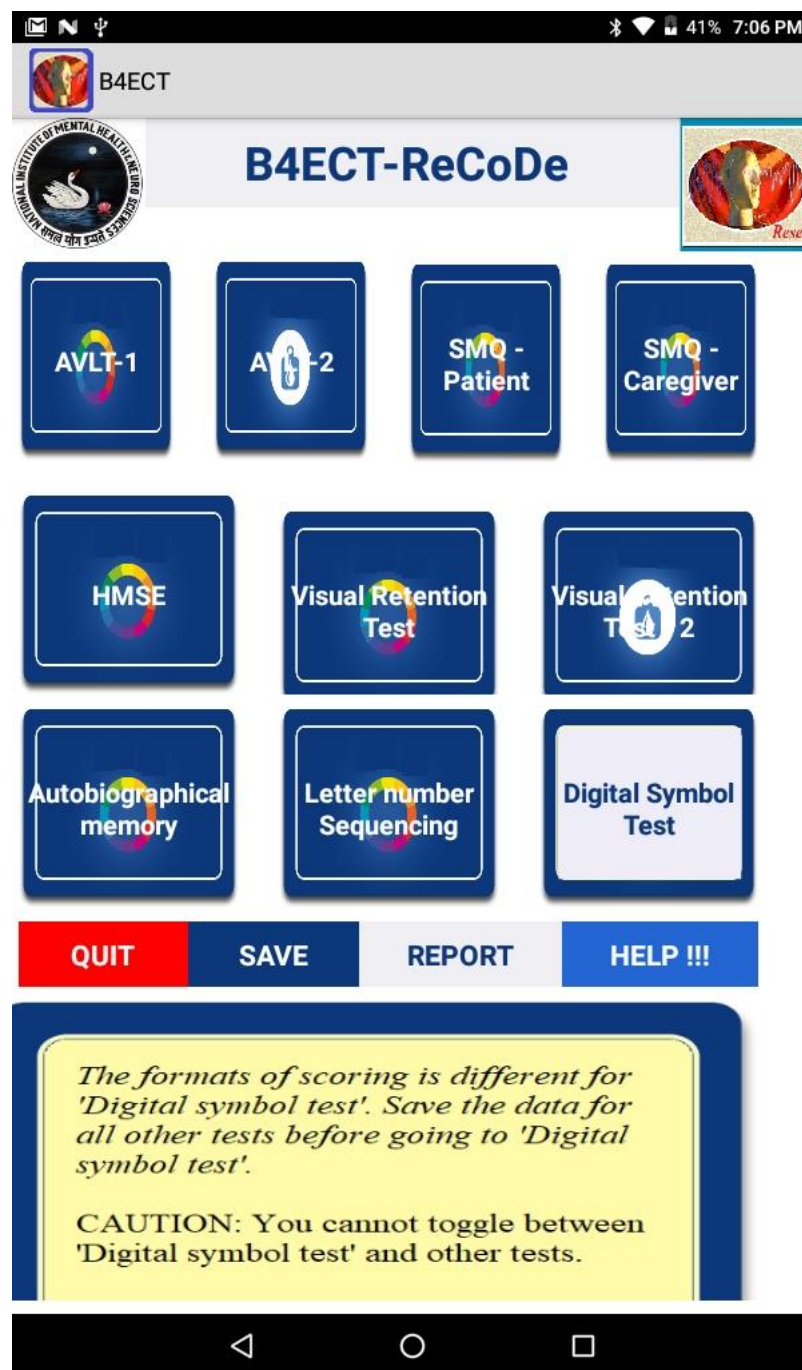
There are fifteen (15) Buttons:
1. AVLT-1
2. AVLT-2
3. Subjective memory – Patient
4. Subjective memory – Care giver
5. HMSE
6. Visual retention test - 1
7. Visual retention test - 2
8. Autobiographical memory
9. Letter number sequencing
10. Digital symbol test
11. QUIT
12. SAVE → The formats of scoring is different for 'Digital symbol test'. Save the data for all other tests before going to 'Digital symbol test'. **CAUTION**: You cannot toggle between 'Digital symbol test' and other tests.
13. REPORT
14. HELP
15. RESET → Press Image button on top right-hand corner →

The design is made in such a way that each session has ***different*** ***sequence / flow of operation:***

First Screen:

Select the test →

1. AVLT-1:

AVLT test is a sequence of tests → Trial-1 (List A)→ Trial-2 (List A) → Trial-3 (List A) → Trial-1 (List B) → IR List A →
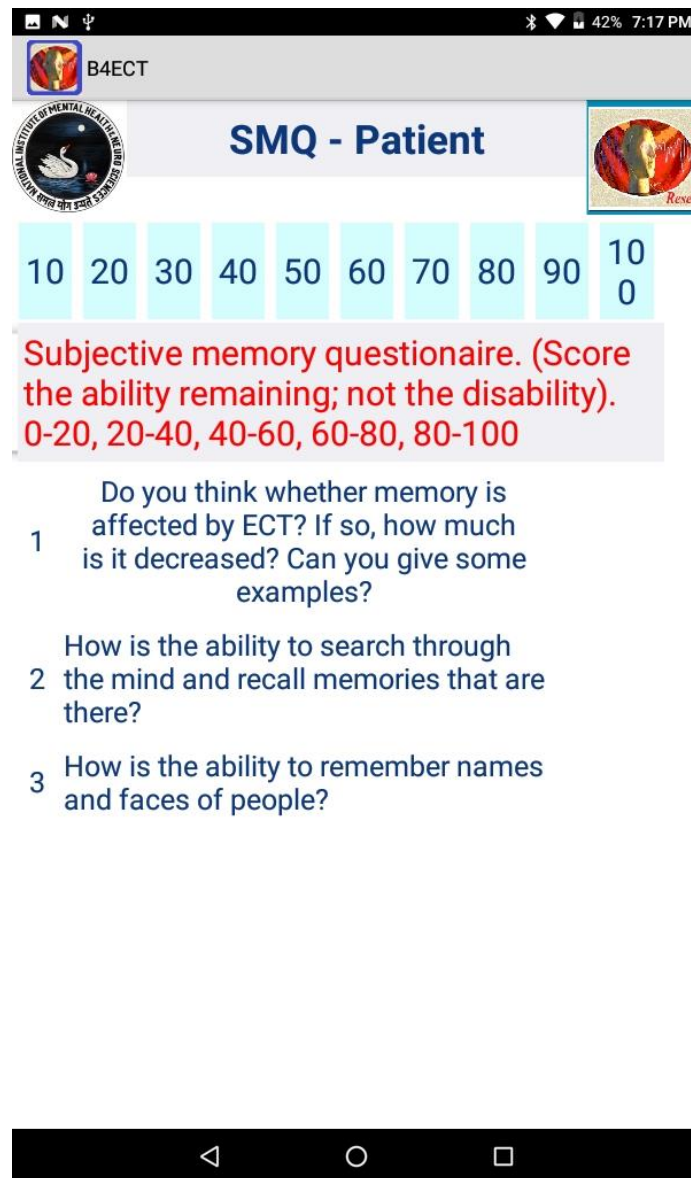
You need to complete all these tests in a sitting. You **CANNOT** quit this test session without completion of all the trials.

Flow of sequence:

a) Whichever the patient remembers, touch that item on the screen. It will show 'Selected'. If you touch it again, it de-selects. If some item is not selected it's ok. After completion, touch 'Trial1' button. This activates 'Trial2'. … and so on…. Once the last Trial (DR List A) is completed, the screen automatically quits this series of tests (AVLT).

2. AVLT-2: After 5 min) → DR List A.

## 3. Subjective memory - Patient:

In Subjective memory questionnaire, the questions are asked *one-by-one*. Scoring is designed to valuate into 5 categories – 0-20, 20-40, 40-60, 60-80, 80-100. The user has to first choose the category and then press the choice (appearing on the right side) to confirm the choice. On confirmation, the next question appears. There are six (6) questions.

You need to complete all these tests in a sitting. You **CANNOT** quit this test session without completion of all the trials.

4. Subjective memory - Care giver:

The same screen and methodology appear for Subjective memory – Care Giver.

5. HMSE:
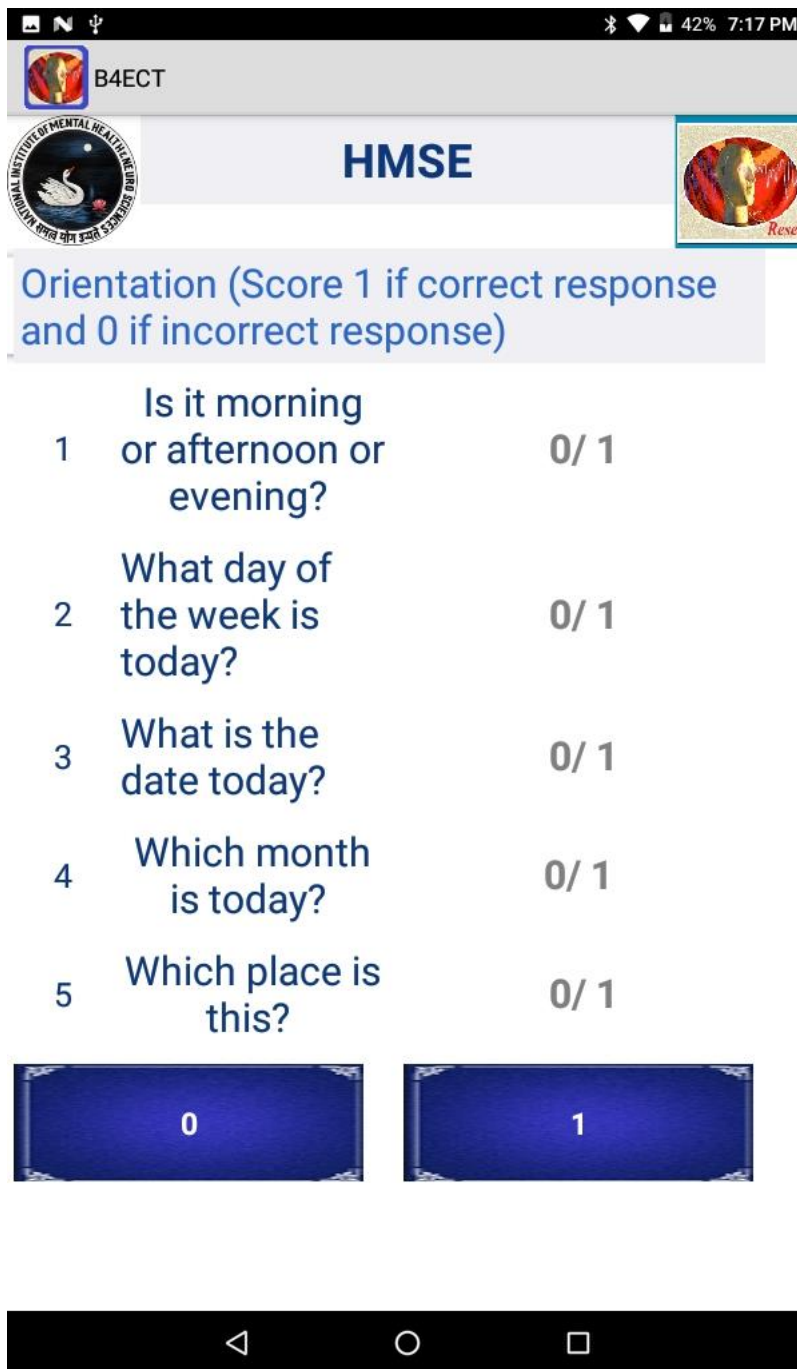
In HMSE (Orientation) questionnaire, the questions are asked *one-by-one*. Scoring is designed to valuate based on Yes / No answers. The user has to first choose the answer and then press the choice (appearing on the right side) to confirm the choice. On confirmation, the next question appears. There are five (5) questions.

You need to complete all these tests in a sitting. You **CANNOT** quit this test session without completion of all the trials.

6. Visual Retention test:

In Visual Retention test → There are hundred numbers in a 21 numbers. Choose the number whichever the patient has answered. The chosen number will become dark blue. Leave it as dark blue if it is correct. If wrong, you can press the dark blue → it changes back to light blue. When 'ACCEPT' is pressed, the test quits → the scoring is done based on the number of dark blues.

The patient **NEED NOT** answer all the questions.

You need NOT complete all these tests. You **CAN** quit this test session without completion of all the trials.

7. Visual Retention test -2: (Repeat test after 5 min)

8. Autobiographical memory questionnaire:

In Autobiographical memory questionnaire, the questions are asked *one-by-one*. Scoring is designed to valuate based on Yes / No answers. The user has to first choose the answer and then press the choice (appearing on the right side) to confirm the choice. On confirmation, the next question appears. There are nine (9) questions.

You need to complete all these tests in a sitting. You **CANNOT** quit this test session without completion of all the trials.

9. Letter number sequencing:
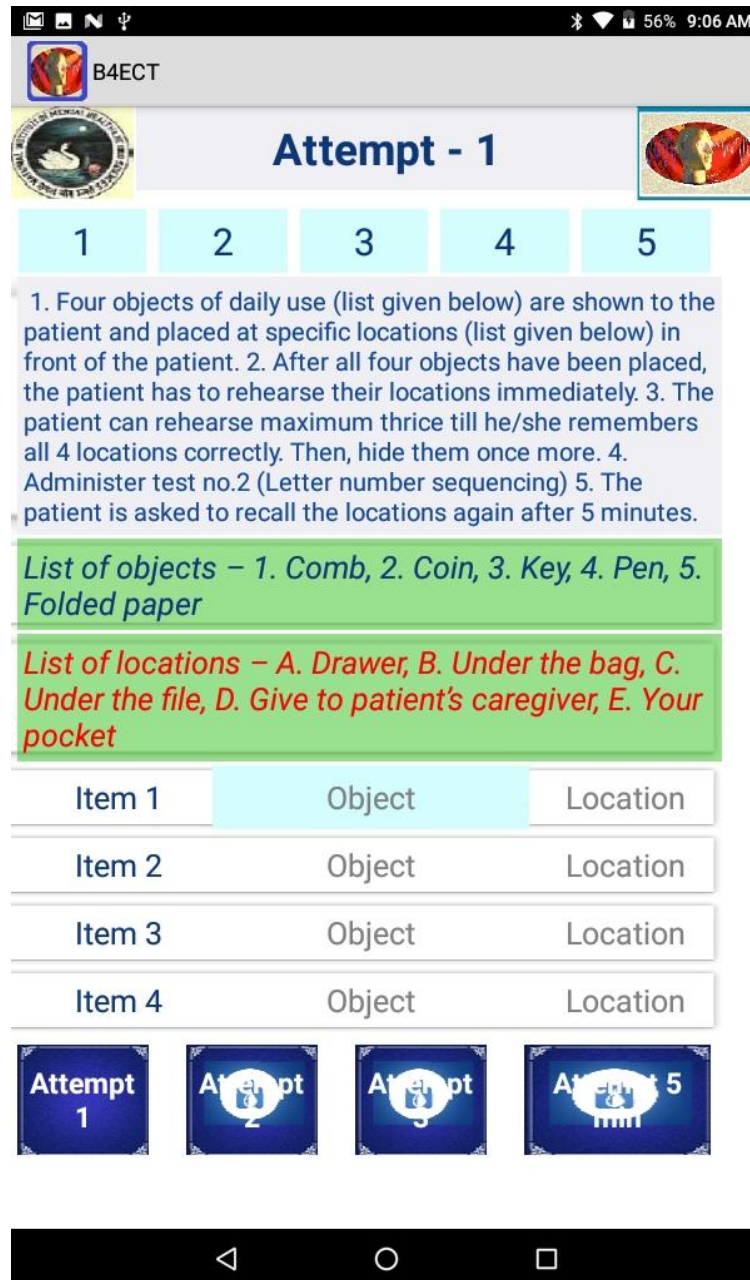
In Letter number sequencing test → There are two sets – 'List of objects' and 'List of locations'. As soon as the test starts, the 'Item 1' <Object> gets highlighted – light blue. You have to choose the number displayed on top of the screen to select the object. You can change the choice by pressing some other number; but once you select the choice by pressing the light blue button (object), the test goes forward for you to select the location. You CANNOT retrace the selection. You NEED to complete all the choices. If you do not want to select, you can just press <object> or <location> to skip the selection. BUT YOU NEED TO PRESS ALL THE CHOICES to complete the 'Attempt'. The test goes sequentially: Attempt1 → Attempt2 → Attempt3→ Attempt5 (after 5 minutes). On completion of all the tests, the 'QUIT' buttons appears → to quit.

10. Digit symbol test:
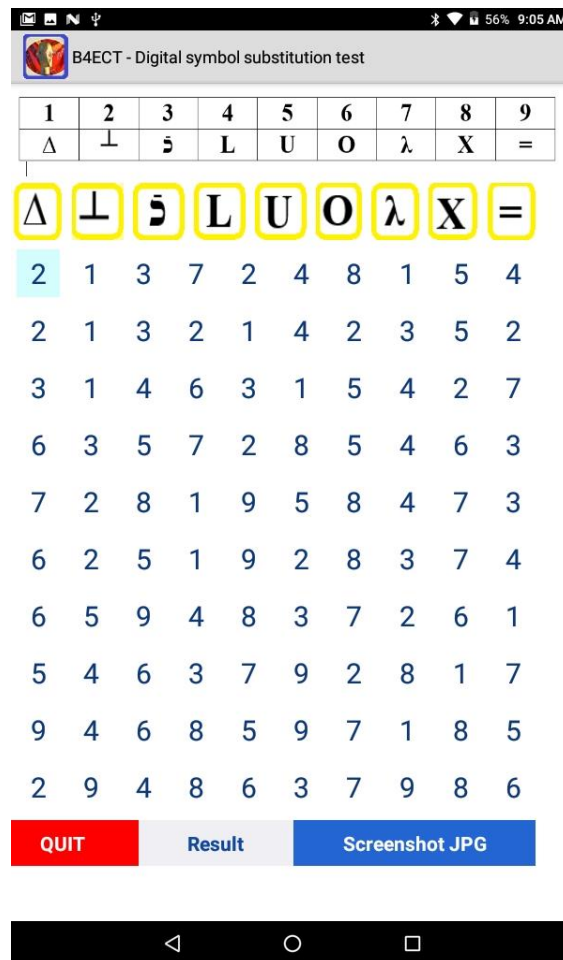
In Digit symbol test → There are hundred numbers in a 10 x 10 matrix. The first active number '2' is in light blue color. The patient has to touch the right symbol shown in the yellow border box. (Instead, the patient can touch the symbol on a chart / card board, and the medical attendant can touch the screen). The patient **NEED NOT** answer all the 100 times. If the answer is correct the number shows as 'dark blue'. If it is not correct, the number shows as 'yellow background' showing that attempt has been made.

On confirmation (Press QUIT), the test is completed.

You need NOT complete all these tests. You **CAN** quit this test session without completion of all the trials.

You can view the RESULT → 'Total' tests attempted and "correct" answers.

You can SAVE this screenshot for transferring through Email….