

Oracle Blood Glucose Meter

Set Up & Control Testing

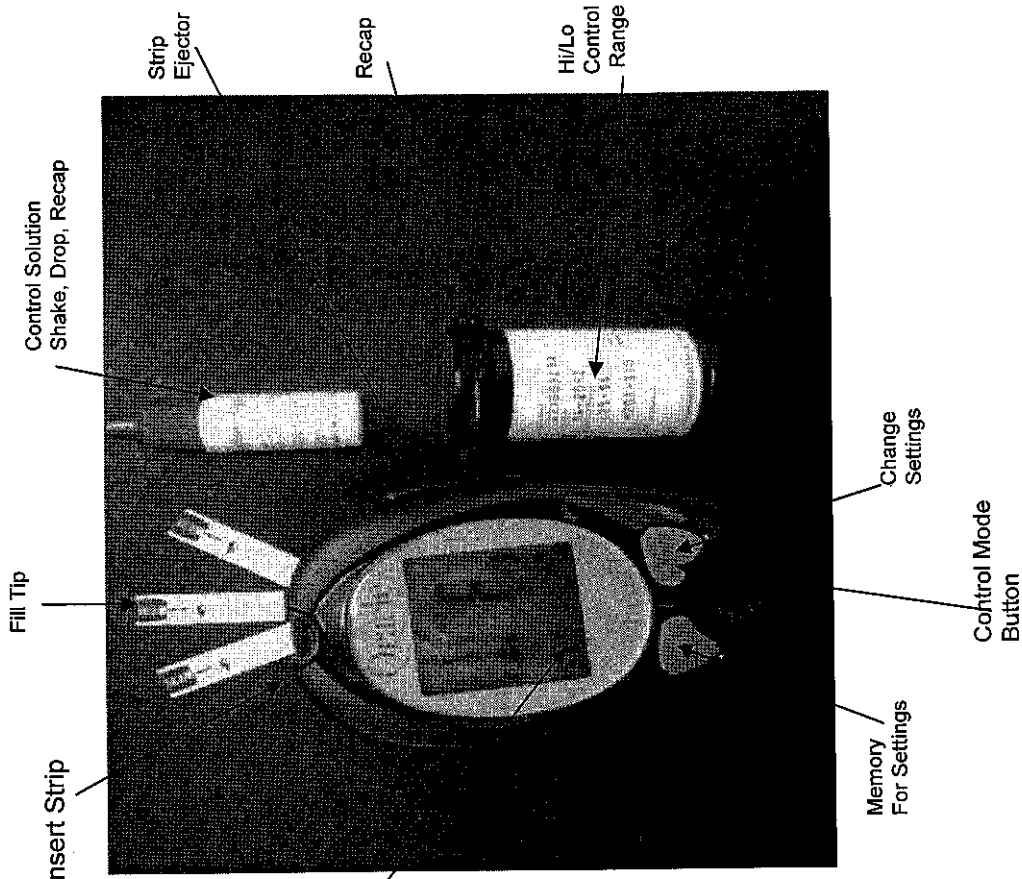
Tools: White Paper, Pen, Oracle User Guide or Certification Manual, Oracle Meter, Oracle High/Low Solution, Oracle Blood Glucose Strips, Oracle Control Log

Set all meters w/ battery, date, time, mg/dl. Instructions are on Page 13 in the Oracle User Guide inside each new meter box—or on Page 2 of your Oracle Certification Manual. Oracle DVD also explains this procedure. It's important to setup meter correctly to ensure date compliance between meter and strips.

Set date,
Set Time

CONTROL TEST PROCEDURES:

- Put strip in meter (gold end in; blue fill tip sticking out)
 - **CLOSE CAP** on bottle; prevent contamination
- Meter will power on automatically
- Press "C" to switch to Control Mode ("C" in display)
- **Shake** Control Solution Bottle (sugar settles to bottom)
- **Write Today's Date** on Bottle; discard 1 month or less
- **Open & Discard 2 or 3 drops** to ensure clean solution
- **Place 1 drop clean solution on clean white paper**
 - **CLOSE CAP** on bottle; prevent contamination
- **DIP(90° angle) blue fill tip into solution** and wait until you hear the beep indicating tip is full; remove from control solution
- Number will appear on meter within 6 seconds
- **EJECT** Strip using Ejection button on right side
- Find the "Control Range" on strip bottle label
 - Determine if you used Low or High Control
 - Determine if the results are within range for the control solution you used
 - Repeat with other solution
 - **Record in Control Log**



Tech Support: Call NurseRosieProducts 800-841-1109 ext 107

Oracle Glucose Meter

Team Training Tips

Tools: Meter, Strips, Control, White Paper, Lancet, Pen, Certification Manual & Control Log, DVD

- **Review Meter setup** procedure (previous page).

- Confirm location of instructions in facility (Certification manual; User Guide; DVD).
 - Importance of date/time setup after battery changes
- **Control Testing Tips** (see previous page):
 - Remember to **shake** bottle, use **clean drops**, **white paper**, **recap**, **dip strip** into drop.
 - Review Facility Protocol for Control testing and Control log recording.
 - We recommend when changing bottles, if meter dropped, if readings seem "odd"

- **Capillary Blood Testing**

- **Insert New Test Strip**; Gold contacts into slot; blue fill tip facing user. Meter will power-on. Recap Strip Bottle to prevent contamination
- **Lance finger**, let blood drop form
- **Dip test strip blue fill tip (at 90° Angle)** into blood drop. Meter will beep when strip filled. **Confirm fill visually**; move strip & meter away from blood.
- Results will display w/ beep in 6 seconds
- Eject strip using button on side of meter

- **Disinfect**: Use EPA Approved Disinfectant 1:10 bleach per instructions on disinfectant product label

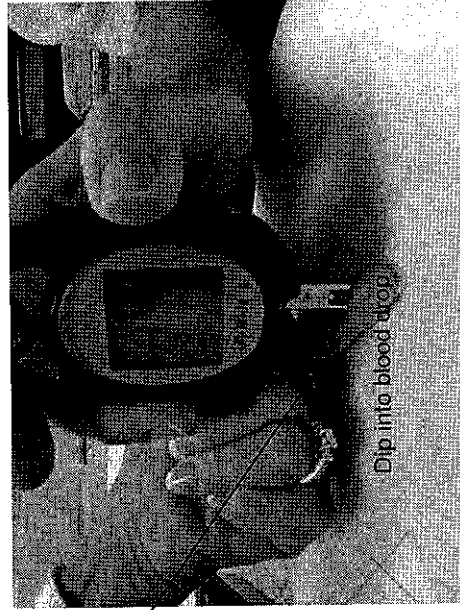
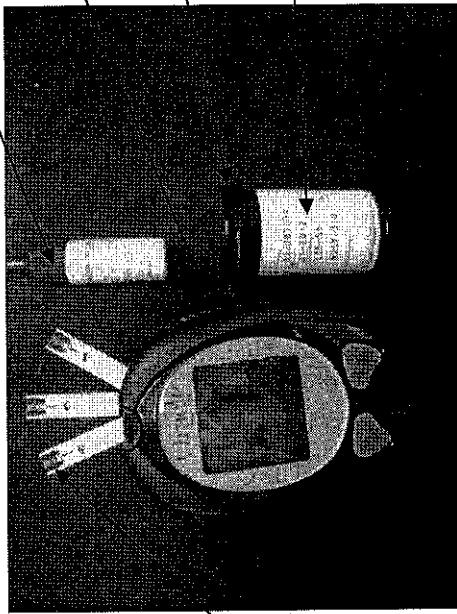
- **Tech Support**: Establish "Go To" Person to call customer service (# on back of meter) if there are concerns or an Error Message on Meter.

Rosie Team will troubleshoot the meter and take action required to keep teams up and running.

- **Train: New Team Members** using the Oracle DVD and Certification Manual

- Tech Support: Call NurseRosie Products 800-841-1109x107

Shake, Drop, Recap



Fill Tip

This booklet should be used with your Oracle™ Training Video to train your staff in the proper operation of the Oracle Blood Glucose Monitoring System. Upon completion of training, the trainee will be a certified operator.

In order to become certified, the designated trainer should demonstrate the ability to:

- I. Set the Time/Date/Alarms/Memory Deletion
- II. Perform a Control Solution Test
- III. Perform a Blood Glucose Test
- IV. Perform Alternate Site Testing
- V. Use Memory/Recall Test Results
- VI. Properly Maintain the Oracle Blood Glucose Monitoring System
- VII. Install Batteries
- VIII. Perform Basic Troubleshooting

Items You Will Need for Training:

- Oracle Glucose Meter
- Oracle Test Strips
- Lancet or Lancing Device
- Control Solutions (Low, Medium and High)

About Oracle Blood Glucose Monitoring System

The Oracle Blood Glucose Monitoring System is for use in the quantitative measurement of glucose in fresh capillary whole blood from the finger and the forearm. It is intended for use by healthcare professionals and people with diabetes mellitus at home and as an aid in monitoring the effectiveness of a diabetes control program. The Oracle Blood Glucose Monitoring System is not intended for the diagnosis of or screening for diabetes mellitus, nor for use with neonates.

The Oracle Blood Glucose Monitoring System consists of the Oracle Blood Glucose Meter, the Oracle Blood Glucose Test Strips and the Oracle Control Solution. The Oracle Meter is designed to fit comfortably in your palm, operate at the touch of a button, and present test results on the easy-to-read LCD display panel.

Your Oracle Meter needs a small amount of capillary whole blood to operate and will provide test results in six seconds. The Oracle Meter is designed with a safety test strip ejection button, eliminating the need for the caregiver to touch the used strip. Simply eject the used strip into your facility's approved biohazard waste container.

The Oracle meter can only be used with Oracle Test Strips. The meter cannot be used with any other brand of test strip and Oracle Test Strips cannot be used with any other brand of meter. The Oracle Blood Glucose Monitoring System is intended for *in vitro* use only.

I. Setting the Clock on Your Meter and Turning On/Off Alarm Sound

Make sure your Oracle Meter has batteries inserted before you begin set-up.



To set the clock, press and hold the **M** button until the meter turns on and the display screen shows **SET** in the upper right hand corner.

To set the year, press the **C** key to adjust the year until the desired year is displayed and then press the **M** key to confirm the year setting. When pressing the **C** key, the year will be displayed in the range of 2009 to 2029.

After the year setting is confirmed, you will see the month segment flashing on the screen.

Press **C** key to adjust the month until the desired month is displayed and then press the **M** key to confirm the month setting.

You will then see the day segment flashing on the screen.

Press the **C** key to adjust the day until the desired day appears and then press the **M** key to confirm the day setting.

You will then see the hour segment flashing on the LCD screen.

Press the **C** key to adjust the hour until the desired hour appears on the screen and then press the **M** key to confirm the setting.

You will then see the minute segment flashing on the screen.

Press the **C** key to adjust the minute until the desired minute appears on the screen and then press the **M** key to confirm the setting.

You will then see an "AL" displayed on the screen center.

Press the **C** key to toggle between the alarm reminder setting or no-setting mode. If you see the LCD display a small flashing icon of an alarm clock in the lower left corner with a time segment display, it means you are in the alarm setting mode. If you see only AL without the icon of the small alarm clock, you are not in the alarm setting mode.

Press the **M** key to confirm the alarm setting mode. If you select the alarm setting mode, alarm clock icon will stop flashing and the hour of the time segment will start flashing.

Press the **C** key until the desired alarm hour appears and then press the **M** key to confirm the hour setting. Then the minute segment will start flashing. Press the **C** key until the desired minute appears on the screen and then press the **M** key to confirm the minute setting. You will see the measuring unit flashing on the upper left corner of the LDC display.

Press the **C** key to toggle between mg/dL and mmol/L measurement units. Press the **M** key to confirm the setting. You will see a "dEL" displayed in the center of the screen. The unit of measurement – mg/dL – is the standard unit of measurement in the U.S.

Press the **C** key to toggle between a flashing "dEL" for memory deletion or a non-flashing "dEL". If you want to delete all memory, press the **M** key while the "dEL" is flashing. If you do not want to delete all memory, press the **M** key when the "dEL" is not

flashing. Once the **M** key is pressed the LCD will display "OFF" and the meter will turn off automatically after 2 seconds.

II. Perform a Control Solution Test

The purpose of control solution testing is to ensure the Oracle System is working properly. You should perform control solution testing when:

- Using the meter for the first time
- Opening a new bottle of Oracle Test Strips
- The cap on the test strip vial was open for a while
- The meter was dropped
- You suspect your Oracle Meter and Test Strips are not working properly

Please note that you must use the Oracle Control Solution with the Oracle Test Strips. Other brands of control solution will produce inaccurate results.

Always check the expiration date on your Control Solution. DO NOT use control solution if it has exceeded its expiration date.

To conduct a Control Solution Test, insert an Oracle Test Strip into the meter. A full LCD screen will be displayed briefly and then a blood drop icon appears.

Press the **C** key, and the meter will display a letter "C" on the upper right corner of the screen, indicating the control test mode. The test result will not be stored in the memory.

Always make sure to press the **C** key for Control Solution testing; otherwise, the control solution test result will be stored in the memory and affect your average of test results.

Shake the vial, discard the first drop of control solution, and wipe off the dispenser tip with a clean paper towel to ensure a good sample and accurate results.

Squeeze a small amount of Control Solution on a flat surface and apply to the front edge of the test strip.

Wait for 6 seconds, and the meter will display the results.

Compare your Control Solution test results with the expected range printed on the test strip vial label. If the test result is out of range for the solution used, repeat the test with a new strip. If this second test does not fall within range, it is possible that the strips and/or Control Solution are not functioning properly. Please contact your Life Systems representative at this time for further assistance.

Using the **Eject Lever**, discard the used test strip according to your facility's safety procedures. The meter will automatically shut off after the test strip has been ejected. The meter will also shut off after 2 minutes of nonuse.

III. Perform a Blood Glucose Test

The Oracle logo is written in a stylized, serif font with a decorative underline beneath the letters.

Before taking your first glucose test with the Oracle System, set up your meter properly and run a control solution test.

Rinse and dry your hands well. Perform any other safety protocols set forth by your facility.

Make sure you are testing in an area between the temperature ranges of 50 and 104° Fahrenheit. The meter will not test outside of this range and will display an error message to let you know you are outside the acceptable temperature ranges.

Remove an Oracle Test Strip from the test strip bottle and close the bottle immediately. Be careful not to touch the sampling end of the strip. Insert the test strip – arrow pointing outwards - to turn on the meter.

While the meter is off, insert a test strip into the meter's strip slot in the right direction. The meter will turn on with a full screen display, and a blood drop icon will be blinking on the screen.

Wait for a flashing blood drop to appear on the meter display screen.

At a slight angle, gently bring the test strip in contact with the blood sample. The test strip acts like a straw to pull the blood in. Keep the test strip in the blood drop until the meter beeps to indicate the test strip has enough blood to test. Do not push the blood sample against the test strip or try to apply a smeared blood sample.

The meter will start counting down for 6 seconds and the test result will be displayed on the screen.

After 6 seconds, the glucose testing result will appear on the meter display screen. Test results will be automatically stored into the meter memory.

The Oracle System will display a **HI** or **LO** error message if the glucose level is above 600 mg/dL or below 20 mg/dL.

Eject the used test strip and dispose of the strip according to your facility's safety procedures. The meter will automatically shut off when the strip is ejected.

IV. Perform Alternate Site Testing

Select a soft, fleshy area on the forearm that is clean and dry, away from bone and free of visible veins and hair.

Massage the selected area gently to increase blood flow to the puncture site. Clean the test location with an alcohol wipe or with soap and water.

Open the test strip vial. Take one test strip out of the vial and quickly cover the vial to keep air out.

Insert a test strip into the meter while the meter is off. The meter will turn on and a blinking blood drop icon appears on the LCD screen.



Apply blood to the front edge (the tip) of the test strip, and the meter will start counting down for 6 seconds then display the test results on the screen.

Eject the used test strip and dispose of the strip according to your facility's safety procedures. The meter will automatically shut off when the strip is ejected.

Please note that medications, stress, illness, food and exercise can affect blood glucose levels. Capillary whole blood at the fingertip can reflect test changes faster than capillary blood at other sites of the body. If a blood glucose level is tested during or immediately after a meal, physical exercise or stressful events, take the blood sample from the fingertip instead of other sites.

Do not use AST if you suspect the glucose level is not as stable as usual, or if you think the resident is hypoglycemic or hyperglycemic.

See the Oracle User's Guide for more information about AST.

V. Use Meter Memory/Recall Test Results

The Oracle Meter automatically stores up to 500 test results with date and time. The meter also provides 7, 14, 28, 60 and 90-day averaging. You must set the date and time to use the memory and day averaging function.

To view the meter's memory, with meter off press the **M** button to turn the meter on. After a brief full screen display, the meter will display the total number of test data stored in memory. The screen will display "001" as the sequential number of the most recent test results in memory. The memorized test data will be displayed next. If there is no memorized result in the meter, "___" is displayed and the meter will turn off after 20 seconds.

The screen will display each of the memorized test data in sequence. Press the **M** and **C** key to review test results in memory forwards and backwards.

To display the average (AVG) test result, turn the meter off by pressing the **M** key for 2 seconds. Press the **C** and **M** keys at the same time and hold for about 2 seconds, wait for AVG to display on the screen, and then release the two buttons. The meter will be in the average mode with "AVG" displayed.

When the "AVG" is flashing in the lower left corner of the screen, the number 7 will be displayed under AVG and the average of the last 7 days test results will be displayed in the center of the screen. The number of tests done in the last 7 days will also be displayed in the lower right corner of the screen.

To see the average of 14, 28, 60 and 90 days, continue to press the **M** key to move the LCD display forward from 7 day average to 90 day average. The average display will move from 90 days backward to 7 days if you continue to press the **C** key.

Press the **M** key and hold for only 2 seconds to exit the recall mode and turn off the meter.

When "___" is displayed, it means there are no test results in memory.

VI. Properly Maintain Oracle Blood Glucose Monitoring System

Always clean the meter after use. Gently wipe and clean surface of the meter with a soft, lint-free, cloth that has been slightly moistened with alcohol or follow your facility's infection control policies. Do not get water inside the Oracle Meter and never immerse the meter or hold it under running water.

Do not use glass or household cleaners on the meter.

Do not try to clean the test strip holder.

Please follow all facility infection control policies when using the meter.

Store your meter in its case, in a clean dry place at 46 -86° F.

If you need further assistance with the Oracle Blood Glucose Monitoring System please contact your Life Systems/Hummingbird Medical representative toll free at 800.841.1109, Extension 107.

VII. Install Batteries

Your Oracle Meter comes loaded with batteries.

To change the batteries, turn off the meter by pressing the **M** key and hold for 2 seconds before replacing the batteries. Open the battery cover on the back of the meter by hand and pulling the cover up.

Remove the old batteries and insert the new batteries with the correct +/- direction.

Put the battery cover back in place and snap closed.

Note that replacing the battery will not reset the stored testing results.

Reset the time and date after the batteries are replaced.

VIII. Perform Basic Troubleshooting

The following is a summary of error messages that may appear on the meter. In the event of an error message, refer to the table on page 26 of your Oracle User's Guide.

If you receive an **E_1** message, it means the meter is operating in an ambient temperature below 50° Fahrenheit, which is the lowest range of operating temperature. Repeat the test after the meter and strip are in a warmer environment.

If the meter displays an **E_2** message, it means the meter is operating in an ambient temperature above 104° Fahrenheit, which is the highest range of operating temperature.

The Oracle logo, featuring the word "Oracle" in a stylized, serif font with a wavy underline beneath the letters.

If the meter flashes an **E_3** message, it indicates the battery is low and needs to be replaced.

If the meter flashes an **E_5** message, it indicates the test strip is wet or used. Repeat the test with a new strip.

If the meter flashes an **E_6** message, it indicates there is an error in the meter or the strip. Repeat the test with a new test strip. If **E_6** continues to display on the screen, contact a Customer Service representative.

If the meter flashes an **E_7** message, it indicates the memory is damaged. The meter can perform the glucose measuring without storing test results into the meter's memory. Please write down the test results into the data logger and contact a Customer Service representative for a new meter.

If the meter flashes a **HI** message, it indicates the test result is higher than the measuring range of 600mg/dL. Test again following the User Guide for correct glucose measurement process. If you see **HI** again, please contact a medical doctor for immediate advice.

If the meter flashes a **LO** message, it indicates the test result is lower than the measuring range of 20 mg/dL. Test again following the User Guide for correct glucose measurement process. If you see **LO** again, please contact a medical doctor for immediate advice.

If you have any questions, or require technical assistance with your Oracle Blood Glucose Monitoring System, call Life Systems/Hummingbird Medical at (800) 841 – 1109, Ext. 107.

TEST PORTION for Certification for the Oracle™ Blood Glucose Monitoring System

1) Describe how to delete the meter's memory.

2) What is the correct unit of measure for blood glucose in the United States?

3) Why should you perform a control solution test? When should you perform a control solution test?

4) Describe how to perform a control solution test.

5) A. What should you always do to ensure the safety of you and your resident prior to performing a blood glucose test? B. Describe how to perform a blood glucose test.

6) What should you do if the test result seems abnormal?

7) How do you review the previous test results?

8) Does replacing the battery automatically reset stored test results?

9) *What problem(s) could occur if the control solution is contaminated?*

10) *What does it mean when LO is displayed after a blood glucose test?*

11) *What does it mean when HI is displayed after a blood glucose test?*

12) *Name 2 factors that can cause higher results.*

13) *Name 2 factors that can cause falsely lower results.*

ANSWER PORTION for Certification for the Oracle™ Blood Glucose Monitoring System

- 1) Describe how to delete the meter's memory?

Press the M key while the "dEL" message is flashing.

- 2) What is the correct unit of measure for blood glucose in the United States?

Mg/dL.

- 3) A. Why should you perform a control solution test? B. When should you perform a control solution test?

A. To ensure that the meter is working correctly and to ensure the correct user technique. B. When using the meter for the first time; when opening a new bottle of Oracle Test strips; if the cap on the test strip vial was open for an extended period of time; if the meter was dropped; if you suspect your Oracle Meter and Test Strips are not working properly; according to your institution policy.

- 4) Describe how to perform a control solution test.

Insert test strip into the meter

Press the C key for Control Solution testing.

Squeeze a drop of control solution onto a clean, dry, non-absorbent surface.

Do not allow the bottle to come in direct contact with the surface. Do not apply control solution to the test strip directly from the bottle. This can lead to contamination of the control solution.

Replace the bottle cap on the control solution bottle immediately after use.

Touch the control solution to the edge of the test strip, using a 90°-approach angle. Hold the strip in the control solution until the meter beeps.

Wait for result. After 6 seconds, the control solution test result will appear on the meter display screen.

Compare the reading on the screen to the Control Solution range printed on the test strip bottle or its packaging.

- 5) A. What should you always do to ensure the safety of you and your resident prior to performing a blood glucose test? B. Describe how to perform a blood glucose test.

A. Wash your hands in warm soapy water. Rinse and dry your hands well. Perform any other safety protocols set forth by your facility. B. Open the test strip vial. Remove a new test strip. Be careful not to touch the sampling end of the strip.

Insert the test strip into the meter test port. The Meter will turn on automatically and beep.

Wait for the flashing blood drop icon to appear.

Use a lancet or lancing device to obtain a blood sample.

Oracle

Apply the blood sample to the test strip. At a slight angle, gently bring the test strip in contact with the blood sample. The test strip will draw the blood in. Keep the test strip in the blood until the meter beeps.

Wait for result. Test result will appear on the display. The test result has been stored in the Meter automatically.

Push the eject button to remove the used test strip. When the test strip is removed, the Meter will turn off automatically.

Discard the test strip and lancet in your facility's prescribed biohazard waste container.

- 6) *What should you do if the test result seems abnormal?*

Perform a control solution test and make sure results are within the expected range printed on the test strip vial.

Verify that control solution and test strips are not expired.

If either test produces abnormal results, DO NOT proceed with the blood glucose test. Call Life Systems to report the problem to a representative.

- 7) *How do you review the average test results?*

Turn the meter off by pressing the M key for 2 seconds. Press the M and C keys at the same time; hold for about 2 seconds. When AVG displays on the screen, release the two buttons. The meter will be in the average mode with "AVG" displayed. Press the M key to move thro LCD display forward from 7 day average to 90 day average.

- 8) *Does replacing the battery automatically reset stored test results, date or time?*

Replacing the battery does not reset the stored results. The date and time must be reset after replacing the battery.

- 9) *What problem could occur if the control solution is contaminated?*

The Control Solution test results may read out of range if the solution has been contaminated. Open a new bottle of Control Solution and repeat the test.

- 10) *What does it mean when LO is displayed after a blood glucose test?*

The test result is below 20 mg/dL. The test should be performed again to confirm the result.

- 11) *What does it mean when HI is displayed after a blood glucose test?*

The test result is higher than 600mg/dL. The test should be performed again and confirm results.

- 12) *Name 2 factors that can cause higher results.*

Use of serum, plasma, or venous whole blood; specimen with a hematocrit of less than 20%; use of strips that are wet or have been stored outside the specified temperature range (46 - 86° Fahrenheit.)

13) *Name 2 factors that can cause falsely lower results.*

Use of expired test strips; water or alcohol remaining on the fingertips; specimen with a hematocrit greater than 70%; capillary specimen obtained from a severely hypotensive patient (patient is in shock) or severely dehydrated, or in a hyperglycemic-hyperosmolar state (with or without ketosis); venous sample not tested within 30 minutes of collection.

Oracle™ Blood Glucose Monitoring System Skills Evaluation.

Name: _____,

has correctly demonstrated procedures for:

1. Control Solution Testing YES NO
2. Using Test Strips YES NO
3. Blood Glucose Testing YES NO

Facility Supervisor: _____

Date: _____