



<b>MODULE NAME:</b>	<b>MODULE CODE:</b>
<b>ADVANCED DATABASES</b>	<b>ADDB7311</b>

<b>ASSESSMENT TYPE:</b>	<b>EXAMINATION (PAPER ONLY)</b>
<b>TOTAL MARK ALLOCATION:</b>	<b>50 MARKS</b>
<b>TOTAL HOURS:</b>	<b>1 HOUR (+5 minutes reading time)</b>
<b>INSTRUCTIONS:</b> <ol style="list-style-type: none"> <li><i>Please adhere to all instructions in the assessment booklet.</i></li> <li><i>Independent work is required.</i></li> <li><i>Five minutes per hour of the assessment to a maximum of 15 minutes is dedicated to reading time before the start of the assessment. You may make notes on your question paper, but not in your answer sheet. Calculators may not be used during reading time.</i></li> <li><i>You may not leave the assessment venue during reading time, or during the first hour or during the last 15 minutes of the assessment.</i></li> <li><i>Ensure that your name is on all pieces of paper or books that you will be submitting. Submit all the pages of this assessment's question paper as well as your answer script.</i></li> <li><i>Answer all the questions on the answer sheets or in answer booklets provided. The phrase 'END OF PAPER' will appear after the final set question of this assessment.</i></li> <li><i>Remember to work at a steady pace so that you are able to complete the assessment within the allocated time. Use the mark allocation as a guideline as to how much time to spend on each section.</i></li> </ol>	
<b>Additional instructions:</b> <ol style="list-style-type: none"> <li><i>This is a CLOSED BOOK assessment.</i></li> <li><i>Calculators are not allowed.</i></li> <li><i>For multiple-choice questions, give only one (1) response per question. The marker will ignore any question with more than one answer, unless otherwise stated. You should, therefore, be sure of your answer before committing it to paper.</i></li> <li><i>This assessment has One Section . You are required to answer All of these sections.</i></li> <li><i>Answer All Questions.</i></li> <li><i>This is the closed book section of the assessment. Once you have completed the closed book section of the assessment, submit it and collect the open book section, together with the allowed sources of information.</i></li> </ol>	

**Question 1** **(Marks: 6)**

Oracle 11g is used by various levels of users. Discuss the various user types and provide a description of each user.

**Question 2** **(Marks: 4)**

PL/SQL raises an exception for a system generated error or an error created by a user. Describe two (2) advantages of using exceptions as a means to handle errors.

**Question 3** **(Marks: 10)**

A database model is a theory or specification describing how a database is structured and used. There are several database models. Discuss any five (5) database models.

**Question 4** **(Marks: 2)**

SQL\*Plus is an Oracle-developed application with a command line interface to submit SQL statements. Describe two (2) advantages of using SQL\*Plus application.

**Question 5****(Marks: 14)**

Consider the following PL/SQL query:

SET ServerOutputs on

DECLARING

doctor\_name varchar2(50);

CURSER c1 IS SELECT d.firstname || ' ' || d.surname DOCTOR

FROM doctor d, medicine m, prescription p

where d.doctorid = p.doctorid

and m.medid = p.medid

and p.quantity = 1;

BEGIN

OPEN c1;

LOOP

FETCH cur1 INTO doctor\_name;

EXIT WHEN c1%NOTFOUND;

dbms\_output.put\_line('DOCTOR: ' + d\_name );

END;

END;

<b>Q.5.1</b>	The code above has seven (7) errors. Identify the errors and rewrite the code so that it would produce a valid output.	(14)
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**Question 6****(Marks: 8)**

The Database Administrator plays the most important and critical role in database management.

Explain any four (4) critical tasks performed by the Database Administrator.

**Question 7****(Marks: 6)**

Discuss any three (3) major components that a typical PL/SQL environment will include.

**END OF PAPER**