



FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY
DEPARTMENT OF INFORMATION AND MEDIA TECHNOLOGY

FIRST SEMESTER 2016/2017 EXAMINATION

COURSE CODE: IMT 512
COURSE TITLE: ADVANCED JAVA PROGRAMMING
CREDIT UNITS: 3
TIME ALLOWED: 2 HOURS
COURSE LECTURER(S): MR. S.O. GANIYU
NUMBER OF QUESTIONS: 4
NUMBER OF PAGES: 3

INSTRUCTIONS

- Answer all questions
- Do **not** use red pen
- Please use a clear handwriting
- This exam is closed book, closed notes, closed laptop and closed cell phone
- Please use non-programmable calculators only

Question 1

- (a) Explain Java Micro Edition (Java ME). (5 marks)
- (b) Briefly discuss the followings:
- Optional packages in Java ME (2 marks)
 - Java card (2 marks)
 - Profile packages (2 marks)
- (c) Explain the middle tier of JEE platform. (4 marks)

Question 2

Use Figure 1 to answer questions (i) to (v)

- (i) Mention the appropriate name for each of the Swing component numbered 1 to 5. (5 marks)
- (ii) Which of the layout managers was used? (1 marks)
- (iii) Mention any two (2) components that can be used for number 7. (2 marks)
- (iv) What is the general name for number 6? (1 mark)
- (v) Suppose the instance name of components 2, 4 and 5 are *comp2*, *comp4* and *comp5* respectively. Write the code snippet to create the components and include them to an instance of JPanel called *doPanel*. (5 marks)

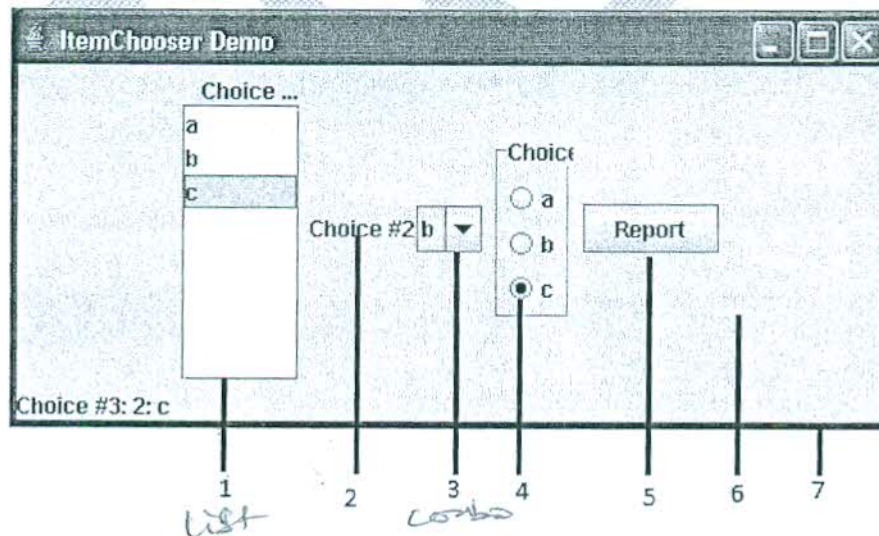


Figure 1

Question 3

- (a) Swing framework has a large collection of components enclosed in swing containers for building interactive user interface. Briefly summarise the three (3) obvious points of the containers. (3 marks)



(b) Explain each line of the code fragments below as they relate to content pane: (3 marks)

Line 1 `setLocationRelativeTo(null);`

Line 2 `setDefaultCloseOperation(EXIT_ON_CLOSE);`

Line 3 `setVisible(false);`

(c) Discuss in detail with the aid of clear diagram the processing of JSP by web server. (9 marks)

Question 4

(a) List four (4) of the core components of JEE. (4 marks)

(b) Write the code to create JavaBean for a class called **IMT512** having following data types (6 marks)

String name;

boolean married;

(c) (i) What is the major benefit of using JDBC as an enterprise system developer? (2 marks)

(ii) You need to establish JDBC connection to database and your development system is having JDK installation that is not compliant with Oracle JVM. Suppose the JDBC driver can be referenced as **com.mysql.jdbc.Driver**. Write the code to bind (register) your application to the database through the JDBC. (3 marks)

Best of Luck.

```
try {
    Driver myDriver = new oracle.jdbc.driver.OracleDriver();
    DriverManager.registerDriver(myDriver);
}
}
```

⁸⁰⁻³
 Paper I - Maths / Science - 92
⁸⁰⁻¹⁰
 Paper II - English / Gen. Paper - 85
²⁵
 Paper III - Quanti / Verbal Res - 47
 224

224
250

Maths 92