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## TEST INFORMATION GUIDE

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This test information guide provides a summary of concepts that are tested on the multiple-choice examination for the Public Service Administrator – Option J: Java Application Developer job. This information can be reviewed in combination with the class specification and examination announcement to assist you in preparing for the examination.

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### **I. Program Development (26 Questions)**

Employees in this job must have knowledge of the Java programming language and JavaScript used to design, code, test, and maintain websites or web applications. This section assesses your ability to develop a system's Business, Persistence and Web Layer, and tests your knowledge of Java EE/J2EE programming. Specific test question topics include:

- Java Beans;
- Java Servlets;
- Struts;
- Spring.

### **II. System/Program Design (14 Questions)**

Employees are expected to assess requirements for websites or web applications to determine project feasibility and to facilitate design and development activities. This section assesses your ability to define system requirements, and develop and design high level systems. Specific test question topics include:

- Modeling techniques;
- System architecture;
- System design approach;
- Design patterns.

### **III. System Testing (10 Questions)**

Employees in this job must prepare test plans, test scripts, and test data for new and modified programs, and conduct program tests. Specific test question topics include:

- Identifying program defects;
- Executing stress test scripts;
- Debugging programs.

#### **IV. Database Development & Management**

**(10 Questions)**

Employees are expected to possess knowledge of relational database systems used to support agency websites, web-enabled applications, and batch systems. These questions test your knowledge in designing constructing and maintaining databases in SQL (Structure Query Language). Specific test question topics include:

- Developing and maintaining databases;
- Identifying correct results/outputs from SQL commands;
- Common procedures and characteristics.

#### **V. System Integration**

**(10 Questions)**

Employees are expected to possess knowledge of application integration, and data access and integration. These questions test your knowledge of WebSphere tools, and configuration and interface functions in a web-based environment. Specific test question topics include:

- Web portals;
- Accessibility and security;
- System Configurations.