Self test MVS system fundamentals

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INTRODUCTION TO THE SELF TEST MVS SYSTEM FUNDAMENTALS

The delegate must be able to answer the following questions to attend the course z/OS-MVS system fundamentals part 2 - z/OS infrastructure & services.

Answers to the questions can be found in the course z/OS-MVS system fundamentals part 1 - zArchitecture.

QUESTIONS SELF TEST MVS SYSTEM FUNDAMENTALS

1. Architecture
    a. Describe the mechanism used to update the PSW
    b. What is the purpose of an interrupt?
    c. What would be an example of a program interrupt?
    d. How many types of SVC interrupt are there?
    e. What does the hardware do when an interrupt occurs?
    f. What is the purpose of the storage key mechanism?
    g. Can a key 8 user read key 0 storage?
    h. What is prefixing and why is it necessary?
    i. Who uses the following:

        Unit addresses?

        Device numbers?

        Subchannel numbers?
    j. What are the steps involved in starting an I/O operation?
    k. What are the steps involved in obtaining status on I/O completion?
    l. What controls the CPU's ability to execute privileged instructions?
2. Introduction to MVS
    a. Which architecture and operating system does MVS originally stem from?
    b. What are the three products that make up MVS?
    c. What 3 commands create an address space?
    d. Who processes JCL?
    e. Why do batch jobs run in an Initiator's address space?
    f. What do we call a dispatchable unit of work?
    g. When an interrupt occurs, where is the status of the interrupted program saved ultimately?
    h. What is the purpose of an ENQ request?
    i. How do we synchronise I/O requests?
    j. Who maintains the Dispatcher's queue in the right order?

3. Virtual Storage Concepts
    a. State the rules for loading a program, and why they exist
    b. Describe the problems encountered with Real Storage systems
    c. Explain precisely how Virtual Storage overcomes those problems
    d. Explain the Dynamic Address Translation process
    e. Explain how page stealing works
    f. Justify the concept of segmentation
    g. Describe a page fault and explain how it is resolved
    h. Explain the concept of common storage
    i. State who benefits from swapping and why
    j. Explain the following terms – Reclaims, Working Set, Thrashing
4. Storage Management
    a. Why do we have the 16-Mb line?
    b. What are the advantages of putting module in the PLPA?
    c. What is FLPA used for?
    d. What is a subpool?
    e. How much storage could you use if you coded “REGION=22M”?
    f. What’s the best way to restrict region allocation?
    g. What is a segment fault?
    h. What are the different page datasets and what do they contain?
    i. What is VIO?
5. Data spaces and hiperspaces
    a. Why was a secondary address space control mode introduced?
    b. What does being in secondary ASC mode actually mean?
    c. Where is the ASC mode indicated?
    d. How does AR mode work?
    e. What is a dataspace?
    f. Can you manipulate data while it is in a dataspace?
    g. What does VLF do?

h. How do you get to be a user of VLF?

i. What is a hiperspace?

j. Can you manipulate data while it is in a hiperspace?

6. System initialisation

a. What is the purpose of HCD?

b. What is the purpose of the load parameter?

c. What is the purpose of the LOADxx member?

d. What are the three phases of IPL?

e. What is special about the SYRES volume?

f. What does the Program Manager RIM do?

g. Which member of SYS1.PARMLIB has overall control over the IPL, and how do you specify an alternative member?

h. What is an authorised program?

i. What is a subsystem?

j. How is the Master Scheduler started?

EVALUATION.

Here are the correct answers to all questions:

If you can answer less than 50% of the questions, please first follow the course z/OS-MVS system fundamentals part 1 - zArchitecture.

If you can answer between 50% and 80% of the questions, you will still learn a lot in the course z/OS-MVS system fundamentals part 1 - zArchitecture.

If you can answer more than 80% of the questions, you are ready to enrol directly to the course z/OS-MVS system fundamentals part 2 - z/OS infrastructure & services.