

Roll No: -----



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B. Tech CS Mainframe Technology

Semester – VII

Subject (Course): Mainframe Clustering

Max. Marks : 100

Course Code : CSIB354

Duration : 3 Hrs

No. of page/s: 2

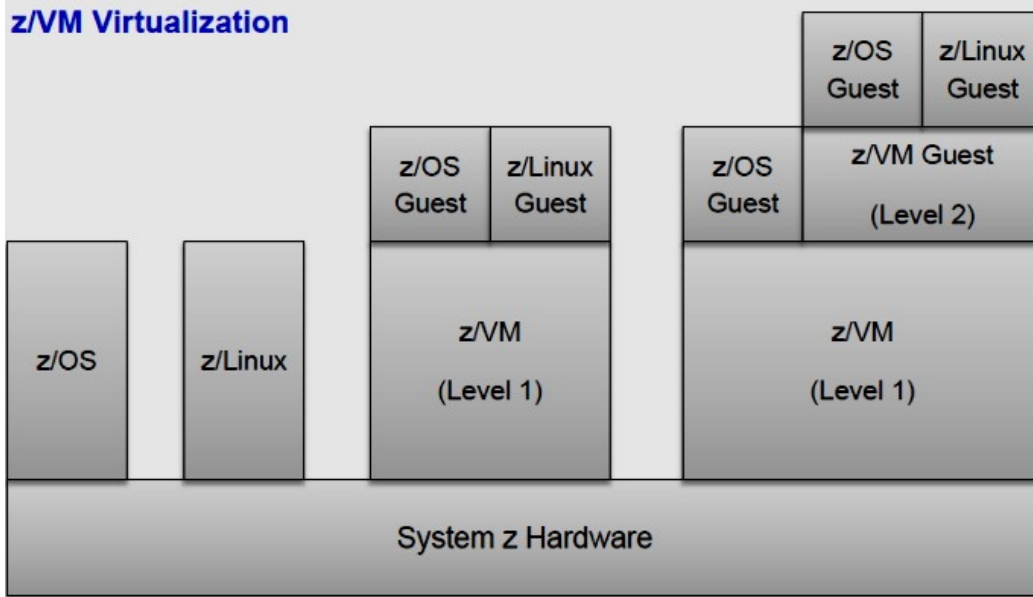
Attempt all questions from **Section A** (each carrying 5 marks); all **Questions** from **Section B** (each carrying 10 marks). **Attempt both Questions from Section C** (carrying 20 marks). **Assume any missing data. Draw diagram wherever applicable. Provide appropriate examples.**

Section A (attempt all questions – 20 Marks)

| | | |
|-----|--|-----|
| Q1. | What it the use of Server Time Protocol? | [5] |
| | What is the role of XCF Monitoring Services? | [5] |
| Q2. | Write any five Sysplex commands. | [5] |
| Q3. | | [5] |
| Q4. | What is PR/SM(Processor Resource/System Manager and why it is important? | [5] |

SECTION B (Attempt all Questions – 40 Marks)

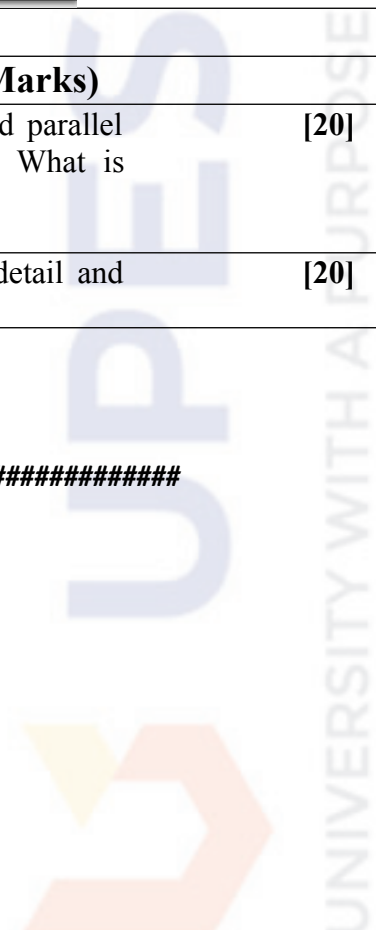
| | | |
|-----|---|------|
| Q5. | Discuss Geographically Dispersed Parallel Sysplex (GDPS) and explain why GDPS is most important factor for High Availability? | [10] |
| Q6. | Classify the mainframe hardware and discuss I/O connectivity with other networks? | [10] |
| Q7. | Explain the following: i. Sysplex Timer ii. LGR iii. Resource Request Queue iv. Cache Structure | [10] |
| Q8. | Analyze the block diagram as below and explain? | [10] |



SECTION C (Attempt both Questions – 40 Marks)

- Q9. When mainframe is in itself a zero downtime system then why Sysplex and parallel sysplex are design for mainframe system? Explain with proper diagram. What is Sysplex Failure Management (SFM)? [20]
- Q10. What is a sysplex/parallel sysplex? Illustrate any four Sysplex policies in detail and discuss? [20]

END OF PAPER



Roll No: -----



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B. Tech CS Mainframe Technology

Semester – VII

Subject (Course): Mainframe Clustering

Max. Marks : 100

Course Code : CSIB354

Duration : 3 Hrs

No. of page/s: 2

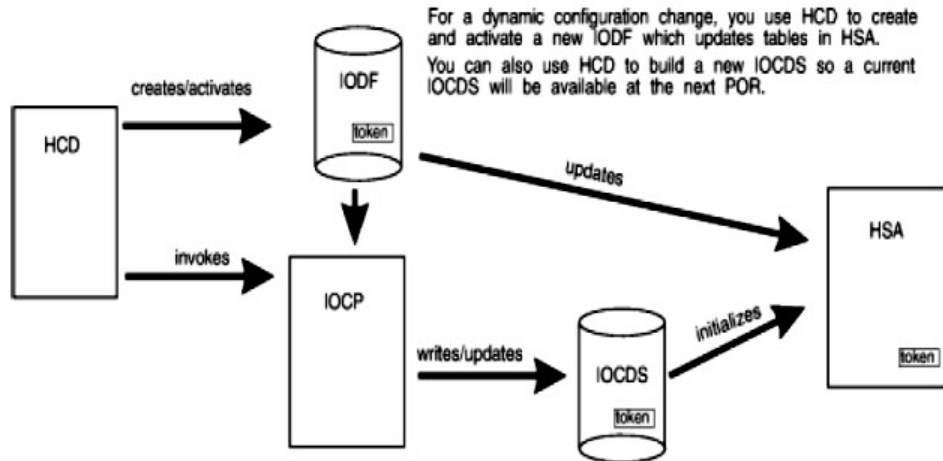
Attempt all questions from **Section A** (each carrying 5 marks); all **Questions** from **Section B** (each carrying 10 marks). **Attempt both Questions from Section C** (carrying 20 marks). **Assume any missing data. Draw diagram wherever applicable. Provide appropriate examples.**

Section A (attempt all questions – 20 Marks)

| | | |
|-----|---|-----|
| Q1. | Discuss any five important commands of Mainframe Sysplex. | [5] |
| | What is parallel Sysplex? | [5] |
| Q2. | Why Server Time Protocol is important? | [5] |
| Q3. | What is Automatic Restart Manager? | [5] |
| Q4. | | |

SECTION B (Attempt all Questions – 40 Marks)

| | | |
|-----|--|------|
| Q5. | What are different Sysplex Services? Discuss in detail. | [10] |
| Q6. | Classify the mainframe hardware/software and discuss I/O connectivity in context to sever-to-server communication? | [10] |
| Q7. | Explain the following: i. Sysplex Timer ii. Live Guest Relocation iii. SSI iv. Lock Structure | [10] |
| Q8. | Analyze the block diagram as below and explain? | [10] |



For a dynamic configuration change, you use HCD to create and activate a new IODF which updates tables in HSA. You can also use HCD to build a new IOCDS so a current IOCDS will be available at the next POR.

At POR, the system uses information in the IOCDS to create tables in HSA.

SECTION C (Attempt both Questions – 40 Marks)

- Q9. What is the role of coupling facility in Sysplex? Classify mainframe hardware, I/O connectivity and explain Sysplex Failure Management? [20]
- Q10. What are the various factors that can affect the continuous availability? How sysplex/parallel Sysplex can provide Continuous Availability to the business. Discuss in detail with various Sysplex Services. [20]

END OF PAPER

