UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2019

Course: Mainframe application development using JCL **Semester: IV**
Program: B.Tech (CSE with specialization in Mainframe Technology) **Time 03 hrs.**
Course Code: CSMT 2002 **Max. Marks: 100**

Instructions: All sections are compulsory.

SECTION A			
S. No.		**Marks**	**CO**
Q 1	Describe the properties of batch processing in z/OS environment.	4	CO1
Q 2	Differentiate between OLD and MOD sub-parameters used in DISP parameter.	4	CO2
Q 3	Define various access methods supported by VSAM datasets.	4	CO3
Q 4	Elaborate the file types used in EASYTRIEVE.	4	CO4
Q 5	Write a SAS program to print each character separately from a string having 5 characters.	4	CO5
SECTION B			
Q 6	Discuss the following ISPF commands with suitable example: RENUM, REPEAT, EXCLUDE and DOWN.	10	CO1
Q 7	Explain VSAM datasets with its types.	10	CO3
Q 8	Explain the parts of tables in EASYTRIEVE. Differentiate between instream tables and external tables with suitable example.	10	CO4
Q 9	Describe the following system options, defined in SAS programming: LINESIZE, CENTER/NOCENTER, DATE/NODATE, NUMBER/NONUMBER. OR Write the syntax and use of following SAS build- in functions: CEIL, MEAN, LEFT, TRANSLATE and TODAY.	10	CO5

	SECTION-C		
Q 10	Explain the role of control interval and control area for VSAM datasets. Write a JCL program to create an ESDS VSAM dataset with user-defined parameters. Load this newly created ESDS dataset with records from a user-defined PS. Assume names and values wherever required.	**20**	**CO3**
Q 11	Examine the significance of COND and REGION parameters in JOB and EXEC statements along with their syntax. Analyze their priority order if these parameters have been coded in both the statements. Also, write a JCL program to rename a PDS and to merge two PDS in a single PDS. OR Explain the requirement of "generation data groups" in z/OS along with its parameters. Write a JCL program to create a GDG with user-defined parameters and to create its generations.	**20**	**CO2**

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	SECTION A		
S. No.		**Marks**	**CO**
Q 1	Discuss the conditions in which system initiation/re-initiation is required.	**4**	**CO1**
Q 2	Explain the role of initiator in z/OS.	**4**	**CO1**
Q 3	Differentiate between SHR and OLD sub-parameters used in DISP parameter.	**4**	**CO2**
Q 4	Differentiate between random and sequential access methods supported by VSAM datasets.	**4**	**CO3**
Q 5	Explain the requirement of SAS in z/OS.	**4**	**CO5**
	SECTION B		
Q 6	Discuss the advantages of using EASYTRIEVE in Mainframe environment. Illustrate the structure of EASYTRIEVE program with its sections.	**10**	**CO4**
Q 7	Differentiate between instream table and external table in EASYTRIEVE. Write the syntax of SEARCH statement for EASYTRIEVE programs.	**10**	**CO4**
Q 8	Draw the flowchart diagrams and discuss syntax of DO WHILE and DO UNTIL loops in SAS programming.	**10**	**CO5**
Q 9	Explain the term paging with suitable example. Discuss the conditions to select a page for page-out process. OR Elaborate the significance of Storage Management Subsystem (SMS) in z/OS.	**10**	**CO1**

	SECTION-C		
Q 10	Differentiate between positional and keyword parameters used in JOB statement. Discuss any two positional parameters and any four keyword parameters of JOB statement with their syntax and suitable example.	**20**	**CO2**
Q 11	Explain the requirement of KSDS for users in z/OS environment. Write a JCL program to create a KSDS VSAM dataset. Write another JCL program to rename a KSDS. Assume names and values wherever required. OR "Both, RRDS and PS are used to store records. We cannot access records from RRDS using ISPF menu options but PS can be accessed using ISPF". Analyze the advantages of RRDS over PS dataset. Write a JCL program to create a RRDS and load RRDS using REPRO command.	**20**	**CO3**