UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2017

Program: B.TECH (CSE with specialization in Mainframe Technology)   Semester – VII
Subject (Course): **Mainframe transaction management**   Max. Marks   : 100
Course Code   : CSIB 465   Duration   : 3 Hrs
No. of page/s: 2

Note: All Parts are compulsory.

(Part- A)

Instructions: All questions are compulsory.   (5*4=20)

Q1.   Differentiate between simple transaction and complex transaction.

Q2.   Define the role of dump file in CICS transaction execution.

Q3.   Write the EXEC CICS statement used to transfer control from one program to another program.

Q4.   Define the role of SSL, when used in CICS web support.

Q5.   Describe the role of message handlers in pipeline processing of CICS transactions.

(Part- B)

Instructions: Question number 6, 7 and 8 are compulsory. Question number 9 and 10 has internal choice to attempt.   (4*10=40)

Q6.   Analyze role of online transaction processing system. Write the types of transactions available in OLTP.

Q7.   Elaborate the significance of following CICS supplied transactions: CESN, CEMT, CEDA, CMAC and CECI.

Q8.   Describe the "SOAP" protocol for exchanging information in distributed environment. Illustrate the structure of a SOAP message with its components.

Q9. Describe the VSAM data structure. Elaborate types of VSAM data structures used in CICS transactions.

<div align="center">OR</div>

Q10. Explain and illustrate event processing architecture. Discuss the role of event source, event processor and event consumer with suitable example.
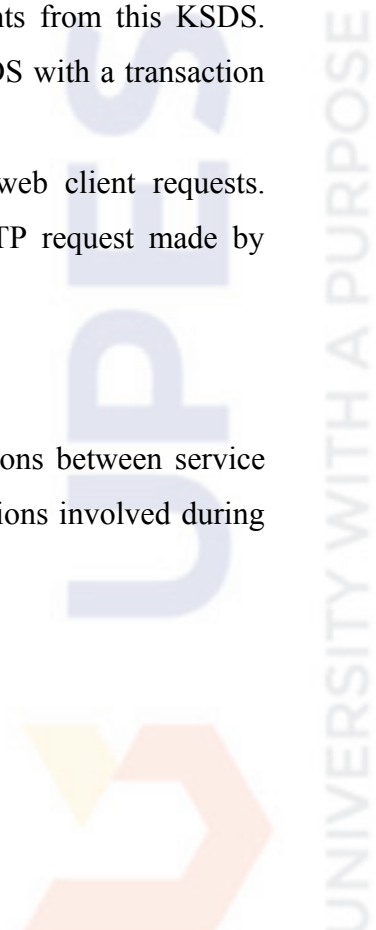
<div align="center">**(Part- C)**</div>

Instructions: Question number 11 is compulsory. Question number- 12 and 13 has internal choice to attempt. **(2*20=40)**

Q11. Prepare the JCL program to create a KSDS data set with key length 3. Write a COBOL program containing CICS statements to read and write the contents from this KSDS. Write the CICS commands used to bind COBOL program and KSDS with a transaction name and its execution.

Q12. Describe the approaches used by CICS applications to service web client requests. Explain the elements contained within a correctly composed HTTP request made by client and HTTP response from CICS server.

<div align="center">OR</div>

Q13. Draw and elaborate the web service architecture based on interactions between service provider, service requester and service registry. Describe the operations involved during interaction between the components.

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(Part- A)

Instructions: All questions are compulsory. **(5*4=20)**

Q1.   Write the transaction types available in OLTP.

Q2.   Define the role of COMMAREA used in CICS statements.

Q3.   Describe the role of CESN and CESF transactions.

Q4.   Describe the components of URL with example.

Q5.   Discuss the CICS supplied utility program used for password expiry management for HTTP authentication.

(Part- B)

Instructions: Question number 6, 7 and 8 are compulsory. Question number 9 and 10 has internal choice to attempt. **(4*10=40)**

Q6.   Discuss the program preparation process when host program contains EXEC CICS commands.

Q7.   Elaborate the attributes used in macros DFHMSD, DFHMDI and DFHMDF with syntax.

Q8.   Discuss two- tier CICS web support used to connect web browsers to CICS transaction server.

Q9. Describe the CICS transactions used to create a temporary queue, fetching information about all queues in the CICS environment and displaying the content from any queue.

OR

Q10. Prepare a COBOL program to send and receive text to/from CICS terminal using EXEC CICS statement.

(Part- C)

Instructions: Question number 11 is compulsory. Question number- 12 and 13 has internal choice to attempt. **(2*20=40)**

Q11. Write the steps to compile and prepare a COBOL program having EXEC SQL statement. Write a COBOL program to update data in SQL table using EXEC SQL. Describe the CICS transactions used to bind a transaction name with the COBOL program.

Q12. Describe web service description language with its role in CICS services. Elaborate the elements that WSDL 1.1 document uses in definition of network services.

OR

Q13. Discuss the role of external call interface and external presentation interface in application creation for mainframe environment. Create a pipeline with transport related handlers and define the role of handlers in processing of web services and responses.