

SUPERVISOR'S
SIGNATURE
WITH DATE

DATE : 4/11/14

ROLL NO. 1059

NAME : Chinmay Parikh TRIMESTER/SEMESTER : VII DIVISION: A

PROGRAMME : B.Tech

SPECIALISATION IT

MODULE(SUBJECT) SOA

TOTAL NO. OF SUPPLEMENTARY SHEETS ONLY —

QUESTION NOS.	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL MARKS OBTAINED	MAXIMUM MARKS
(MARKS OBTAINED) (TO BE FILLED IN BY EXAMINER)	05	05	—	05	—								15	15

(F.P.) 07.11.14

SIGNATURE OF THE EXAMINER

INSTRUCTIONS TO BE STRICTLY FOLLOWED BY CANDIDATES

This answer-book contains eight pages. Check whether the relevant answer-book provided contains eight pages and whether the pages are properly numbered.

Candidates should occupy the correct seats as per the seating plan displayed and write appropriate details in the space provided for the purpose on the answer book.

Candidates must produce their photo identity card provided by the University for verification to the room supervisor during examination. Candidates will not be permitted to appear for the examination without the identity card.

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Candidates should ensure that all answer-books including supplementary sheets provided to them bear the signature of the room supervisor and date of examination without which the answer-book will not be examined.

Do not write on the same paper and enter on the first page of the answer

SVKM's NMIMS

Mukesh Patel School of Technology Management & Engineering

Class Test 2

Course : BTech IT Trim VII

Marks : 15

Note : Q1 Compulsory. Answer any TWO from Q2 to Q6.

Subject : Service Oriented Architecture

Date : 7th November 2014 (Friday) 11:00 am to 11:45am

Q.1.	Contrast between SOA vs Object Orientation.	5
Q.2.	Explain the process steps of top-down delivery strategy with its pros & cons.	5
Q.3.	Compare & Contrast between Transport-Level & Message-Level Security. Explain the importance of single sign-on technology with respect to SOA.	5
Q.4.	Explain the characteristics of Application Service Layer. Describe the models used under this layer.	5
Q.5.	Explain the SOA features achieved by Policy WS*Extension. Explain the WS-Policy framework.	5
Q.6.	Explain Notification & Eventing through its architecture. Explain the significance of adding Addressing WS*Extension layer even though Policy, Metadata Exchange & WSDL is available for addressing.	5

4] Activity agnostic
processing units driven
by intelligent managers.

4] Promotes binding of
data and logic,
~~where the object itself~~
is intelligent.

5] Services are stateless.
This is usually encouraged
to promote reusability.

5] Since object contains
data + logic, this
leads to highly
stateful objects.

Service Oriented

- 1] Services are loosely coupled.
- 2] Coarse grained interfaces e.g. SOAP
- 3] Large units of processing, with varying scope.
- 4] Activity agnostic processing units driven by intelligent menages.
- 5] Services are stateless. This is usually encouraged to promote reusability.

Object Oriented

- 1] Binding to pre defined classes lead to tightly coupled objects.
- 2] Fine Grained interfaces e.g. RPC, RMI
- 3] Small units of processing with narrow focus.
- 4] Promotes binding of data and logic, where the object itself is intelligent. (6)
- 5] Since object contains data + logic, this leads to highly stateful objects.

(1)

① Define Relevant
Business Ontologies



② Align Business
Models



③ Service Oriented
Design Analysis



④ Service Oriented
Design



⑤ Service Development



⑥ Testing



⑦ Deployment

Steps

① :- Research and analyze all business areas
ontologies

② - Discuss and Decide companies
Business Model, w.r.t. IT infrastructure

(3)

Analyze
and
 aspects
SOA

(4) Design
whi
and
etc.
Logic

(5) D
app
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- ③ Analyze the business model and come - up with various aspects that correlate with SOA principles.
- ④ Design an overarching model which encaposes all design decision and incorporates SOA principles, reusability, etc. Outline the Services and business logic. Service layer should be implied designed.
- ⑤ Develop Business logic , implement application logic , application services. Use the service layer to orchestrate these application services.
- ⑥ Test the app. services vigorously so as to make sure all possible input is checked against. Because these services may be reused by third parties.
- ⑦ Deploy the services on existing infrastructure.

Pros

- 1] Offers high quality business logic,
- 2] Takes into consideration scalability.
- 3] Guarantees complete business logic.

Cons

- 1] Time consuming
- 2] Cost, also no immediate results.

(OS)

Characteristics

of Application Service Layer

- 1] Solution agnostic
- 2] Generics reusable and generic services
- 3] Hides connectivity from service deployment environment.

Models

- 1] Wrapper
- 2] Utility

(OS)
Wrapper model talks about wrapping up legacy services so as to bring them to a standard interface and make them re-usable.

Mainly used for hiding complexity and code.

Utility model talks about those services which are completely generic and reusable and provide utility both inside and outside the company.

These two models implement the characteristics

Utility models are generally by themselves supposed to be defined as generic and reusable.

(05)