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	Internal Assusment: II (Unit II).			
1.	Communication Schoen distributed Objects by means of RMI.			
	RMI Stands for Remote Method Invocation.			
100	- It is a nieclarism that allows an object lesiding in one system			
	(JVM) to access invoke an object lurning on another system (Ju			
3/	- RMI is rued to suild distributed applications, it provides			
	lenote communication between gava plograms.			
	- It is provided in the package Java. Ini			
	Alchitecture of RMI application.			
-	- In RMI application we write two programe a scere program			
· ·	and client program.			
	- Inside the server program a remote object & cuated and ujunu			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	I that Object is made available for the client.			
• 1	The client plogram liquest the uniote object on the server and			
0	tlies to involve its niethods.			
	Citrate per service of Equation plans sell			
	(Client) (Scevce)			
	(Stub) (Skeleton)			
	Victual connection			
	RRL RRL			
	Activate connection (
	(Transport layer) (Transport layer)			

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1 0	· Transport layer: Connects client to the server
ý	The same of the sa
2.1	· Skeleton: Reperentation (prom) Of langue of and all continues
	· RRI (Remote reference lane): Manager delevers
	· Skeleton: Repurentation (prony) of lemote object at server. · RRI (Remote reference layer): Manager references made by client to remote object.
	The day of the state of the sta
	Wolking of RMI application.
	- When client makes a request to remote object it is recieved
9	by Stub and eventually the request is passed to RRL.
	- When client side RRe ricierce the riguest and it Ervokes the nethod
	involu () of the Object limotified. It pauces the liquest to RRI on
No.	the server side.
	- The RRI on selver side passes the request to Muleton which finally
	Envolus the required object on the Selvee
	-The list is passed all the way lack to the client.
7-	
•	RMI desijn:
	call for unok object
-	(Client JYM) (Sure JYM)
	there is the stronger of the property and the stronger of the
	tar alieja ikultu u kuna mili. U poliska pijka miliasa disere.
\parallel	
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2	With read labelled diagram explain the role of Stub (plany) and				
	Skeleton in RMI.				
	- In RMI application we write too type of programs one is client				
10001	program and the other is server program.				
	- In side the relieu propon leviote expect is created and the client				
	lequet the servote object in order to invoke its nuthods.				
	Apple layer				
	(dient) layer (Server).				
	1971 Interest to proxy the three transfer of the contract of				
1.304	(Stud). layer (Skeleton)				
0)	I Vietual connection I RMI				
	(RRL) (RRL) System				
	1 Newsoli connection 1				
TD	(Transport) - Transport				
	and the second s				
	(1) Stub:				
	- It is an Object that listed on the client machine and acts as				
	a plany for the leniote Object. Its like a getaway for client playon				
	- The Stub has some nuthod as a demote object.				
	- When client calls on stus object, if forwards this request to the				
100	lemote Object via RMI infrastructule which is the crecuted				
	on the schoel side.				
	· Stus performs the following events.				
	- Initatus Connection with lenote JVM				
-	- Niks and teapsnits (markals) parameters to seniote JVM				

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- Waits for the usult - Reads (Unniaishals) the libured result - Panes the recieved result to the cally. (ii) Skeleton: - It is the server Object which resides on the server machine. - Stub communicates with server application with the left of an inturudiate skeleton object. - Main responsibility of scaleton object is to send parameters to nuthed Englementation and send the levels back to client. · Skeleton performe the following events - Reads the parameter parsed by client - Involves the method on actual remote object - Teansmit pauce the hult to the dient. With a neat diagram explain. The tole of fundamental concepts of the distributed Object model. There are two fundamental concepts (1) Remote Object reference (1) Remote interface - Each procus contains Objects, some of which can recieve sinok invocation and are called as remote object and other recience the Local envocation and an called local Objects. - Objects need to know uncole Object refuence of an object in another process in order to envoke its neethods, called limok neethed invocation

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	- Every uniote Object las a remote Entufaie that specifies which of its methods can be unioted limitely.			
	istice of it nothed can be unoked limitely.			
What of as merrors were				
	Remote and local nethod Expocation			
	4			
	Angua des est a la la la companya de la companya del companya de la companya de la companya del companya de la companya del la companya de la			
- 10	RI RI CLZ RT			
	RI - Lemote Invocation			
	LI-local envocation			
-	· Remote Object defirence			
	- accessing the seniote Object			
-	- Edentifier Mayhout dishibuted Ryclem			
	- Edentifier Mayhout dishibuted Ryslen - Can be passed as an argument			
-	The All College of the College of th			
4	· Remote entirace			
-	- Specifies Which methods can be envoked lumpfely			
-	- nanu, arguments, letrus type - Entrépace déféritées lenguage rued for défining remote entrépace.			
	I duque definition armage med for defining unione integral.			
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4.	nuchanism for each.
	mechanism for Pach.
	· Error landling for delivery guarantees
	Ketry request murage: whither to sitionen: A-11.
2 - 21 10 - 10	- Dudicot. Lituin 101.
	- Dudicate lesters and server is assumed to have failed.
	then when when sites on and 100 M.
	sea as a carpitale requests of the server.
	- Reteansnuisson of rigills: whether to keep a Listory of result nuisages
	to enable lost well to be to the second of that numales
	to enable lost result to be letronsmitted without le-executive operations.
	Under semantics:
	- Maybe: a niethod is executed once or not at all
	- At-least-once: a nethod is executed at least one
4: :	- Ad was a secretary out look one
	- At-most-once: niethod & executed exactly once.

	Fault Tolerance measur		Invocation semantics.	
\parallel	· Retry request newsge	Duplicate	Retionention	
4	and the second and them	filtering	of results.	
	No	Not applicable	Not applicable	Maybe
\parallel	Yes	No	Reexecute the	At least once
#	Mail Jenia spiest se	A Late Day	procedure	
#	Yes	Yes	Retiansmit	At most once.
#	was the value of the	e in his	liply	
-	Invocation Semon	rtice: choice (entery.	
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	(1) P.P.C.
5.	Define and explain the emplementation of RPC.
	Define and explain the voque Call. - RPC stands for Remote Procedure Call.
	1- It is a powerful technique
2.134	Loud applications.
	Serve machine
	Client machene Server
	Call erecutes Retrun)
	1 (Retrun Call)
	Costus (Unpacle Pade)
	(Unpack Pack) RPC Runtime
<u></u>	Ric Lunhar J
	1 (Reviere 2 wait send) 1 (Reviere Send) 1 (Reviere Send)
	Call Packet
-	
-	Result packet.
-	
-	- Client's stus resident in client machine envolus client stub
	procedure by pairing the parameter in usual way.
	- The client stub marshale the parameters into a metage. Ms
	neuge is passed to temport layer rehech sends it to tempte
M.	Selve machère. transport lans
	- On Server Side, Selver Stad parses The mersage to server this
-	which demandals the parameters
4	- After the completion of selver side procedures the values

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	are passed to the server 8ths which marchal	s the value into
	a relucise and pause it to teansport lane.	
j* _) _ n	- Ilansport layer sends the result memory back - Client Stub demarkals the result and let	to client Stub
	- Client Stub demarchals the result and let	uns the values.
	to the calle.	+ P
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