Assignment No:02
Q1 Explain the components of the JDK
→ Java Compiles
> It toanslates > Java source code
Jacq Rantime Envisonment
Jaca Kantime Envisonment
-> It provides libraries vountime environment
for executing Jana applications
Development tools
-> These include - dobuggers, proffless, et a
The Think the terms of the term
0.2 Différence between JDK, JVM, JRE
-> JOK -> Development kit for building
Java applications
JRE > is an envisonment for sunning
Java applications
JVM & is an abstract machine ->
provides dant me environment
in which Java bytecode can be executed
executed
Q. 3 Role of Jum in Jara? How Jum execute Jara?
-> The Jara Vistual machine plays a coueral solo in executing Jara code
coveral odo in executing Java codo
Java compiler and executes it or anderlying hardware.
Sava compiles and executes it on
underlying hardware.
· El yahres des sesso contra la la contra la c

->	It manages memory inandles exception
	and provides various ountine serverces
	It manages memory, handles exception and provides various runtime services required for Java application to
	oun
0.0	memory management system of Jara
of the contract of the second	15 JVM manages memory through
	automatic memory management
	1) Dynam Kally allocates memory for
100	objects in heap and deallocate
	memory for garbage objects
	THE STREET OF THE MANUEL OF THE PROPERTY OF THE PARTY OF
0.5	JIT compiler? Bytecode and As mparture JIT compiles -> partof JUM. > Improved performance of
7	JIT campiles -> partof JUM.
	> morroes performance of
13	applications
	-> by bytecode mto machine code
	at ountime
	-> Bytecode is a platform independent -> can run on any sytem with JVM
	-> can our on any sytem with JVM
0.6	7 How Java acherop platform independence
	Platform independence through
	= TVM by complimy source code
0.00	byte cade «
	byte code & byte code & machine code
	-> Smco, buterado -> piatfrom independent
	Java application con our anywhes

2.6 Architecture of JVM	
THE TECTURE OF IM	
Class loades	
Pi Runtime data areas	
Cheap istack, method area)	
Framp Execution (III compiles)	
Engine Execution (JIT compiles) Native interface	
O.B. Significance of class loader? Granbege collection > i) Class loader in Jara is responsible For loading classes into Jum at	47
>i) Class loader in Jara is responsible	
For loading classes into Juni at	
· ocoldinic	
li Locates and loads class files	
istif Giarbage collection	
-> Process of deallocating memory	
of un-reperenced objects	
Holos to Boo us most proposition	
-> Process of deallocating memory of un-referenced objects -> Done by JVM gerbaye collector -> Helps to free up noo memory -> Avoids memory leak issues	
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