09:2	list and explain the Salient following Java.
	TO a Sura
	programming language &
	and Source programming language. The features of Java wards. Known as Java barrands. A list of Ale most important
	Known as Java barroards.
	leabure a de trava language
-	features of the Java language
10	Simole &
275	Thro is very easy to learn and its synten is Simple clean and
	easy to under stand
3,	object oviented:
	Janguage Broughting in Java is an
4.	object:
	about class, inheritance, palymorphica
	Stateacher. Encapsulation.
2,	Proble 1 miles 3 louises
	you to carry the Java bythe

cock to any pleasure. It of Playon independent: Taxa is plutform independent because it is eliferate from other language Secured. Java is best known to its Security Jura we can chevelop with Gree System Java is court because It in wes Strong remary managenal

tigh proformanis
Terra is factor often often treatitional
interpreted programing danguages because

Java bytende is close to neabor

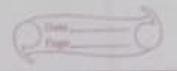
code cache Dynamic. Jara is Brand language It reams and toplan the compount of James The Java vietual machine (Jyn) is a components of the Rustine. Invarient executing Java bylerade there are the

Q terr

Directed take Serval Section include there thange memory for abjects and is shored among all thread and estack: stored local reviable and method call information for each dhead. dh rade nethed information and states 6 Execute Engine:

consite of the inkepsites and the

537 compiler It execute The Java JIT bykende either by interpreting it or compline it to native marking code tor improved performance There components works together to provide a plutform indepented execute environment to Java programs and return type - gran an example -> Certainly In Java operatory can be currently based on their functions



(27) topleus the horn - remove meteoring widening In Jar numbery and widening refer to type convenien between different i) widning " - Defination & wiclesing also known + of a trailer date type is advantably concerted to larger data type in long's or intito a long's There generally no loss of persons because the largest type can kepat the entire range of the Source type Defination :- Nursemany or explaint. conversion occurs when a value of a taxper data type is explicity reverted a smaller data type. or a floor to a short is Manual custing: - It requires money interestion through consting and there might be lost of precision if the tright type connect represent

· Sire and Morahon: Money alleration is alternatic follow a last into first out (LIE)

Steveliere Each Torand has its as

Shich and the size is usually Smaller compared to the heap. · nota Type: Shee prinite data type and · lifeki · Short-lived nemony is autorated, exclude when the rethal execution Completalis Heap ... · Prepare: The heap is used for dyrane romany allocation primary for object on a size and Silvention: strong allocation is managed by the Java virtual reactive (June) the heap we give our be octionted using Jun passenters

Data Types: Store abjects and array
object have a longer lifety and
oney exist beyond the Scope of

er single method:

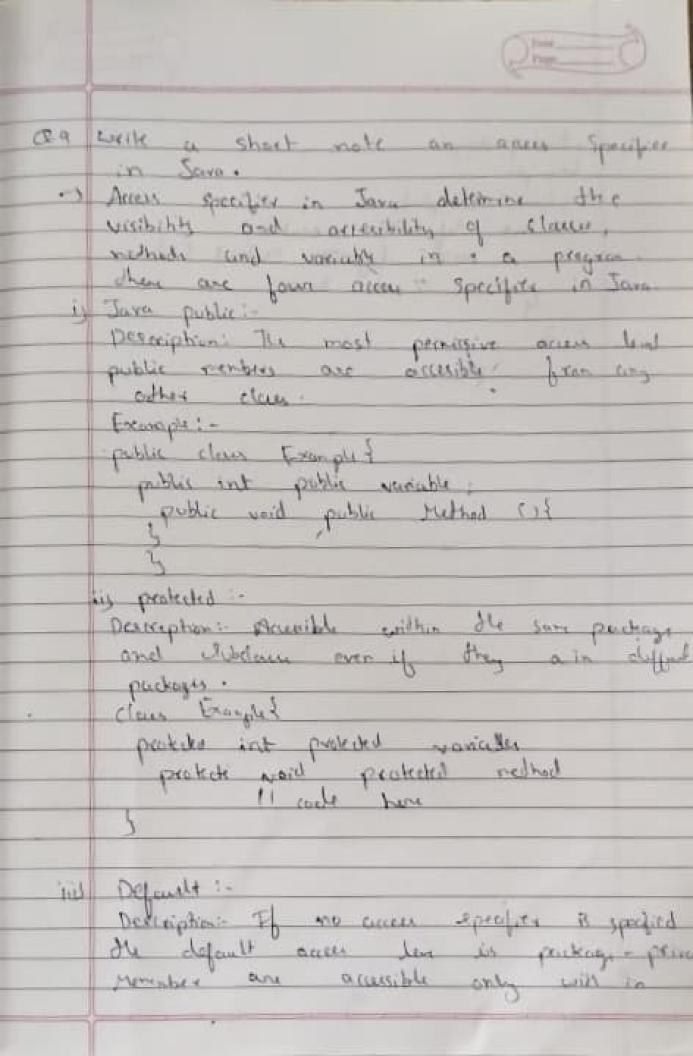
Many Longlewho 2 reference to interest are not properly managed merces lente can occur, inpucting properties Q8 with in debil about state by -> In Java de static transmit in to declare renter that belong of the class. It can be applied to to how the 'static' beganned used in is State variables: Defination variables declared with State Reguerd are known can still variable or class variables . Scope: They are should by cell whome clas sather than mended chied. . Access Accessed very the close out is State nathod:

Definition : Motherle declared with the

the regards State rethol.

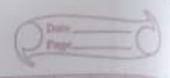
There's - claim weed the class have custer athon on instance. They clients accer non-state neabers.

. Example . - commonly used for whility on especific instance State



· Some backage. classe transport variables; that default mathed () {

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	In Java .	server Line	de la la la	
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			3	



main companies of the Jews virtual O clau header : Responsible the Josephay classes model by the Java program cleaning the compiled Java Classes and make There compiled there would be good the June. Beforde verifies:

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the Java language compiles adder. I
the Java language emples adder. I
does not visitale decurity construir
The holp prevent concartain electrics un vulnorabilites. 3 Takepecker

Takepecker

Live and executer of while the

approach is straight forward. It

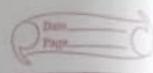
con be less efficient compared

other execution method.

(a) Just - In - Time (JII) compiler:

Converts the bytecode into maker

achine code Just before execution machine code Just before execution This can Significantly improve typically factor other interpreted



· Arithatic apecution:
· tractionality: performa basic Arithmetric
· operation: Olumeric value
· Peturn type: Jam as the aperature
Example: int routher late; // Adol has · Relational operation :-· fundicality: company value and return · aperation - Any prinches clube type
· Return Type: boolen
· Chapte: buston Equal (7==7);
· Loyical operator Janchinality perform logical operation of bullan value · sperator: beclean value.

· Patron value: beclean · Actignment operator:

· Functionality : Assign value the variable

· operator is bacistle : and values

· Tethen type: Save as the assign value

transfer : int re=1; trangel is int nest; · Encernet of percent operation
· touchinality: Forest or decrease Ital

value of a variable
· quesands: variable
· Return type: Sum as the variable by