1) White a program to create a student class having member variable name, and number. Averiede to Stiling! method of the student class to print student information. Justen. Out. printh ("Student name" + name);

Supten. out. printh ("Student aye" + age);

Supten. out. printh ("Student Aye" + Arel); Deanner re - rew Deanner (Bystemin); Bystem, out-youth ("Enter named"); Scanner SC = new Scanner (Suplem. in); Note = rc. next Int();

Norten, out. winth ("Enter rall");

roll = sc. next nd (); nome = sc. nextline (), Dystem, out, printh ("Enter age"); impost jours, wild. Seamer; class student & Object Oriented Techniques: Itaing name; intology, noll; void int () {

/					
,					
class oops 1 { public static void main (Mring [1] orgs) { public static void main (Mring [1] orgs) { pludent 1. net (); pludent 1. net (); pludent 2. net (); pludent 2. net (); pludent 1. To Mring (); pludent 2. To Mring (); pludent 3. net (); pludent 3. net (); pludent 3. net ();	,				
The Color					
The state of the s					
oops 1 & noin () Shie state void moin () Student 1. ret (); Atudent 2. ret (); Atudent 2. ret (); Atudent 2. ret (); Atudent Atudent 3 = new Atudent Atudent 3 = new	student 3. To Moing();				
the state of the s	bring (
roid 1. To 1. To 1. To 1. To	To.		in which	hoshi	
the party and the party of the	mt 3		24.	20.	
ops 1 Atual Atual Atual	alouhr.	rame rame	nom	man man	
o church	· · · · · · · · · · · · · · · · · · ·	Student name Teepak. Mudent oak 19. Nudent rall 9.	Student name Marinsh Student var 24. Student rall 34.	Student nome Sadush Student are 20. Student nell 36.	
-3	. • ~	31 223	222	ZZZ	

If x. equals (4) is true & y. equals (2) is true, then X. equals (2) must be true. Multiple leads on x. expects (y) return the same value. Scanner SC = new Scanner (Suplem, in); System, out. printly ("Enter northe"); It is rubbecine,

X. equals (x) must be true.

It is rummetrical.

X. equals (4) is true iff y equals (x) is true.

Qt is transitive.

- + R " eamobs (2) is true. 2) Averside the equals of the Mudent class. Here are the rules for equals () without: nother = SC. northing ("Enter one");

Sunten. out. println ("Enter roll");

Sunt = SC. northil ("Enter roll");

Durtum, out. println ("Enter roll");

Doll = SC. northy (". X. equals must return false. import jours. Wil Samer; int obje, noll, co=0; It is represtable. () the last () { String name, down student & It is carified

void to Minn! ("Atualent name" + warme); Suntern: Out: vouth ("Mudent are" + are); Surtern: out: vouth ("Nudent are" + are); Joint Equals (student x, student y, student 2) {
int(x. equals (x))

Int(x. equals (x))

Int(x. equals (x))

Int(x. equals (x)) Tuyten . out - printher (" It is nut replacine"); if (x. equals (4) bb 4. equals (2))

if (x. equals (2))

Auritum. out-private ("Traviolise"); if (x. equals (4) & 4. equals (x))

Supring. out joinths ("It is superstricted"); M (x.co>1) Suptem out printle ("Net Repeateble"); Suptem. out. jointh ("Not translive"); elve y Buyten. out. prender ("Met supremetrical"); ethe " Nuttern. out. println ("Net transitive"); ethe hystem, out. printly (" Repeatedle ") if (X. equals (mull)) Dystem. out. println ("palne");

```
class soon 2 {
nublic static voich main ( Mainy arap [ ] }
student 52 = new student ();
                                                                                Atudent 52 = new ntudent ();

$2. net ();

$2. ToString ();

Ntudent 53 = new ntudent ();

$3. net ();

$3. ToString ();
                                                                                                                                                                                     51. Eguals ($1,52,53);
                                           S1. ret();
S1. To String ();
                                                                                                                                                                                                                                                                      Student name Deyrak
Student oak 14
Student roll 9
                                                                                                                                                                                                                                                                                                                       Nucleut name Noiwsh
Student are 27
Student nell 34
                                                                                                                                                                                                                                                                                                                                                                               student name botherh
                                                                                                                                                                                                                                                                                                                                                                                                Nucleut was 20
Nindent roll 36
```

POPPEDDDDDDDDDDD 3) Wonte a program la create a con chair having member choris number, colour, most speed. Implement a war defined becertion if chair number is not a before a perception is chair mumber in most speed to mand on mumber of character in not equals to 20. iar (Bring charms, Bring colour, int mochpood) Throuss
(Thing charms, Arranged Charin Exception) juddie dan Invalied Charis Number Exception extends Exception { Pattern P = Pattern. compute (" \ P {A bound}"); throw new Insolin Chain Excention () ily (m. Lind () & & chasmo. laugh () ==10) ethe display (); nuper ("Chairs Member is not valid"); Matches m = p. matcher (chasms) this now Speed = max Speed; public class car & Italia Atring classes; private static Atring colors; private static Atring colors; Invalid Chavis Exception () { this. during = during; this, colour = ration, Wet rymmetrical.
Wet Transiture. It is representable. It is repleased.

Suntem. out. vintem ("Les chevis no is: "+ chosmo);
)suptem. out. vintem ("Les rolous is: "+ colous);
)suptem. out. vintem ("Les mosc. mod is: + mox speed); Digital, out-pruitly ("Enter more syread (Knyh)"); class main { hour (Moing [] orgs) throws public atatic voic main (Moing [] orgs) throws turblic statics. Buptem. out. printh ("Enter chouses no: "); Mina crum = sc. noct time (); Juylent. out : printlin ("Enter con colour"); (on d = new has (c num, , cool, map); Deanner SC = new Scanner (Dystem. in) Thing cool= sc.nochtine(); I mup = Sc. metInt(); for thorism is: 12345 about static void disylboy (1) { lar nox Meed: 240 Las calous is: ritures Putrul >

4) Treate a clear hierarchy hoving Shape class as the numer cars rectangle, triangle, single as the numer class defined colculate the one area of the child class above of the numer class and colculate the one as the child class above of the numer class as bolie = sc. nelt Int(); Burtem. out-pointln ("Enter height:"); Whe sc. next Int(); Duptem. out-purtln ("Area of briangle" + 0.5 * bole * bt); Lasc-vert Int ("Enter breadth.");

bytem out-purth ("Enter breadth.");

b = Sc. rect Int ("Area of rectound"; "+ L * b);

more out-purth, ("Area of rectound"; "+ L * b); Bearier SC = new Dearmer (Pupter in); void oséal) { Nystem.out.jourdly ("Enter length:"); int bord, ht; void ones () { Dyntem out printly ("Enter bore:"); dans rectanule extends shope { chair triangle extends shape { innest java, util. Banner; dan Mage ? void area () {}

void orea () {
 Nathern out mented ("Enter radius");
 Nod = Sc. nort tet ();
 Syrlem out printe ("Area af winde "+ Milh. PI * Milh. pour class oaks 4 {

hubble static void moin (Aring oras [3] {

Nhape rechangle = new rechangle ();

Shape triangle = new triangle ();

triangle-oreal();

....lo(); Buoyel wirde = new wirde (); wirde.oneo (); Enter height: 4
Area of thanyle is: 2.0
Enter radius: 4 class inche extendo shapes Enter hereth: 2 Enter breddin: 3 Area of reclample in: 6 Enter bone: 2 Area of winds: 50.26 int rod;

S) The Integer day is one of Jova's vertigued Wunder nubcloss, medical or The introduction to Register 8. It reviews as a wording integers. It's fine as it is, but you may passing and formalling integers. It's fine as it is, but you may count I romething minches. It's fine as it is but on Integer but the ret and one investigated by omitting the evertueal of Number and providing only the ret, act and invest operations. void reth() {

) Suptem. out. purth ("Enter integer value")

; integer = Sc. nort Int(); Heaviner SC = new Tranner (Dynum, in) import your wild Sames; int decreare() { noturn -- inleger; Jeluan ++ integer; clair Mithelde Integer } int act (1) {
neturn integer; int increase () { inthe integer;

public class copys {

multic static void main (Atricy E3 anys) {

Mutable Integer not = new Mutable Integer ();

out.net();

Suptem.out.println (not. det());

Suptem.out.println (not. decrease ());

Suptem.out.println (not. decrease ()); Enter Integer value Butynt :-

and a regimeeting & Technology (TIEN)