1)	painting . In this method the suxface of ixon
- 1	is covered with a laver of suitable brusses ox
	hi means of spagn suns
	painting. In this method the suxface of ixon is covered with a layer of suitable brusses or by means of spray guns
11)	coal taxxing: A conting of hot coal tax is
4	applied on the ixon surface which protects
13	the suxface from almosphere.
1	MALTON A STATE OF THE A LITTLE STATE OF THE
(ii)	Electroplating: In this method a thin prot-
	ective lovex or ruppex nickel changium laid
	on feakous metal with the help of electrolysis
0.8	DXDCeSS.
(vi	metal spraying : In this method the ferrous
100	metal suxface is covered with spray of vapou
5.80	xized almunium, tin, lead etc. this layer gives
94	vexxy good protection against coxxosion.
100	The state of the second of the
×	classification of electrical engineering mat-
	evials delicinate and
1)	Conclusion
(1)	Semi- Conductos.
m)	Troculatos, and the second sec
(1)	magnetic materia,
133	A STATE OF THE STA
*	classification of solid materials according
	to it's energy Agp.
1)	CONCLUSTOR I CON CLOCKOD GOE GOES SUBSTAINE
(A)	Semi conductor which allow the electrical current
m)	Insulator: Passege through mem.
	Semi concluctory
1	The state of the second
	_
	CS CamScann

- Ь)	High casbon Steel: 12
<b>⇒</b>	High coxbon Steel: 12 This Steel contain coxbon vaxying from 0.7%.
1.0	to 1.5%.
	properties of high carbon steel are given.
- i)	It has year high strength.
(ii	It is move difficulty to foxge and weld.
Tii')	It is more difficulty to forge and weld.  It has more hardness and resistance to Wear.
100	Weak and the second of the sec
iv)	It is more though, ductility and elastic than low carbon steel.
141	low roxbon steel
7 1 TO	
(=)	lucts of hist cylon cleel;
i)	It is used fex making tools such as dxills, and chisels.
	and chisels
îi)	It is used in mason xy mails.
tiii	It is also used in transmission line and
	mickey are laurers
c)	stainless Steel in thrombon Charles the control of the
⇒	It is exeduced by adding over 12% of chrom-
150	It is produced by adding over 12% of chrom-
=>	properties of stain delices steel
Ó	cossesion sesistance.
(in	High tensile strength
(iii)	very durable and Attractive appearance
ivi	Temperature resistance, Environmentally Friendly
VI)	In was maintenance (Inna lastic)
	Low-maintenance (long lastic)
=>	uses of stain-less steel
i)	Epod and Catesing
511	offshore techanology
703	UHS near resulting on plants
111)	seawates desalination plants
(A)	
1110	ivil Engineering, making, bridge, builing etc

		CS CamSc

61	Emplain proposties 18 of conductive materials?
=>	Electrical properties of conducting materials:
9)	conductivity (o):
11 3	The conductivity is sesipsocal of electrical
· Ins	xesistivity of the material. It is the property
21.12	of material due to which the electric current
17.58	Flows easily through the material. In other
Lion	woods it provides an easy path to the flow of
1.3	alactic curved through the material:
=>	electric current through the material.  This types of material having seed conductivity
-	of heat and electricity.
- 13	positive temperature coefficient:
-5	The materious have positive temperature coefficient
.3.	means when the value of resistance in any conduc-
	thearts when the value of acsistance of the
	ting materials increases then its temperature also increased and vice-reasa (Rî. It expl. It)
1	This there of malaying house and they mal
7	This types of materials having good thermol
-1	onductivity states
	bu Resistance Capital And Annie Capital
7	his types of materials having low xesistance but
-8	cod codsossion sesistance.
-> F	ox any conducting materials they have low
2	sesistance then these will be large amount of
	see electron loxcharge) Flow through the these
y	natesials. The land to the land and the territorial
=> -	Those material axe known as conducting material
=> 7	These are the good conductor of heat and
	rectricity is a planting of part if the

this materials.

08:	lossification of magnetic material with
200	xespect to B - H Cuxve
=>	They are two types of magnetic material.
18.	i) Haxal magnetic material:
=>	The material which are easy to demagnitized are called hard magnetic material.
107	tized are called hard magnetic malerial.
->	It has high coexcivity and high retaintivity:
1 ->	They have high permanent magnifization.
1	They have high permanent magnetization. They have low intial permeability. They sheries loss is higher.
11	Hustericis loss is higher.
->	Eddy custent loss is more for metal
->	B-H curve of this material is while & high.
11446	O IN CORVE OF THIS INCIDENCE.
->	such material are used for permanen magnets
18.3	separators and magnetic detector
1.60	ex: caxbon steel, tungstan steel etc.
11-3-	ii) Soft magnetic material:
=>	The material which are easy to magnifized
56	and demagnitized are called soft magnetic
_>	
-	It has high coexcivity and low retaintivity. They have low permanent magnitization.
_	The last list is list Commediate
-	They have high initial permeability.
	Eddy Current loss is less for metal.
100	B-H curve of this material is long small
->	such material are used for transformer
4/8	coxes, motoxs, generators, electromagnetetc.
2/17	Ex: steep, xeloy etc.
	A sign of the transfer of the state of the same of the

	~
14.14	Enplain non-fexxous metal? and it's properties
- 5	uses and electrical characteristics?
1	Ans: Non- Fexxous metal:
=>	The material which don't contain ison asmain
13	called non-Fexxous metal: Conjunion
1:3	eg: Aluminium, copper, zinc, lead etc.
111111	A. I Judinius (20 Mart) (c 1 2 de 20 fil de 20
15	Ans: properties or characteristic of Non ferrous
1.	metal. Introduction in the state of the
1)	grood thermal and electrical conductivity.
11)	High coxxosion resistance.
III)	Low density (less mass).
iy)	Non-magnetic
V)	(olany Cull)
Ai)	Easy to Fabsicate.
Zi)	conductivity:
- 5	It has great ability to conduct hear & electricity.
VIII)	maliability will be seen to the control of the
9	can be hammered and prepared into shape &
24.1	Size rs/ally and make the
11	Octility: strong by allowing whole place the few
7	It can be drawn into fine wire,
-	Or the de words briefly towns a room of march Or
2,	Ans: Uses of Non-Fexxous metal
1)	High transmission line.
41)	Electrical hasolwake.
Tir)	medical application
(ki	making auto mobile bodies. 11 (ii
V	commercial application
NI)	used in aixcraft. Is the stand on
ND	Iron & Steel industries
65,13	the second and the second second second second second second

11	applain non- Fexxous metal? and it's pxo	pextles
	uses and electrical characteristics?	1000
	Ans: Non- Fexxous metal:	
=>	The material which don't contain ison	asmain
12	called non-fessous metal.	Component
13	og: Aluminium, copper, zinc, lead etc.	171
100	The interior of the state of the same	1
15	Ans: properties or characteristic of Non Fer	SOUS
200	and the second of the second o	
(1)	groof thermal and electrical conductivi	4.
11)	tugh corresion resistance.	Uin.
III)	Low density. (less mass).	W
iv)	Non-magnetic	e de la
V)	COLOUX FUIL.	100
	Easy to Fabsicate.	15
	conductivity:	1.88
4	It has great ability to conduct hear & elec	Bicity.
VIII)	mallability bases the matter the	7 (1
4	can be hamme sed and prepared into si	apes
	Size rs/ally.	N Page Sec.
ix)	Octility: 110 make interest about these de	160
	It can be drawn into fine wise	
-10	Pros the brings brief boar sugar was	h (v
700	Ans! Uses of Non-Fexxous metal.	
1)	High Hansmission line.	in the Sale
	Electrical hardware.	W.C.
	medical application	
iv)	making auto mobile bodies.	1 Cir
V)	commescial application	a loss
vi	used in aixcraft	Jeur
	Iron & Steel industries	
,	The paper incustates	
100.7		

Whigh Bx and high mx. had not been set field inside alx gap of the permanent magnet. chasacteristic of soft magnetic materials:

i) trigh saturation magnetic flum density:

This cost to get high permeability (M) and low correction force, this can also increase magnetic flum density density of the same and the coexciv fasce, this can also increase magnetic flun density.

Til thou magnetic and electrical losses.

This required law coexcivity and high electric at resistantly.

The coexcivity (hs.) That indicates the majerials easy to magnetice and demagnitized by enternal magnetic field.

Y trigh stability: High stability against changes of humidity, vibration and environment. En Explain the chemical governien chartesistics of some commonly used non-feasure metal?

Schokacteristic of capper lare given below: i) high heat conductivity.

I) high electrical conductivity.

II) thood coxxesion resistance.

I) hood biofouling xesistance.

V treed machinability. vi) trigh thermal conductivity.

> characteristics of Aluminium are given below?

1) Good boar and electrical conductor. 11) Non- coxxosive. (V) Lightweight and high ductility.

V) hightweight and high ductility.

V) An magnetic and hon spaking.

C) characteristic of lead are given below?

Lead is a bluish white lustrous metal. 11) It is very soft and highly malleable, ducitie iv) It is very resistance to corrosion. Dichasacteristic of tin are given below:

i) Tin is a soft pliable silvery white metalii) Tin is not easily oviolized and resist consosion.

II) Relatively poor conductor of electricity.

W It has good convosion resistance.

C1 Flectrical properties or magnetic materials?

Smagnetic materials are classified in two group.

O Hard (permanent) magnetic material.

D Soft magnetic material

=> characteristics of hard magnetic materials are.

1) High CHman Chman is the measurement of the

Storage and usable magnetic flux density.

Storage and usable magnetic material to becomes demagnitized.

Whigh stability: The high stability against entern magnetic intexference, temperature, humidity a other environmental factors.

CS CamS

7 Characteristic of Zinc are given below?

i) Zinc is a bluish - silver, lustrous metal. ii) It has good coxxosion resistance. ii) zinc is an alloying element iv) zinc is a moderately good conductor of electricity

	Emplain Properties and use's of silver?
18 18 18 18 18 18 18 18 18 18 18 18 18 1	Ans: Properties:
Emplain proposties 18 of conductive materials?	1) broad conductor of heat and electricity.
=> Flectsical properties of conducting malexials:	ii) bread coxxesian xesistance.
a) conductivity (a):	11) It has highest electrical and thermal condu-
The conductivity is sesipsocal of electrical	ctivity of all metal.
xesistivity of the material. It is the property	The collection metals and metals
or material due to which the electric current	ly It is a soft, white lusture metal
flows easily through the material. In other	vi) It is a vexy ductile and malleable metal.
woxds it provides an easy path to the flow of	Vi) High meeting and boiling point 961.78°C8
electric current through the material.	2160°C respectively. Density (3/cc) 10.5.
=> This types of material having good conductivity	Ans: Application Luce):
of heat and electricity.	DI is used in solar technology.
b) Positive temperature coefficient:	i) It is used in soldering and brazing.
b) positive tempesature coefficient	Ti) It is used in medicine and water purification.
=> The materious have positive temperature coefficient	iv) It is used in electrical & electronics applinances.
means when the value of resistance in any conduc-	V) It is also used in lewelsy, coins and tablewase
ting materials increases then its temperature	The special in the second of the second
also increased and vice-versa (RT. TT OXRL TL)	Epiplain properties and uses of broid.
> This types of materials having good thermol	Ans properties
Conductivity Manager Conduction	1) Good conductor of heat and electricity.
6) Low Resistance	Ti) Good Correction resistance.
=> This types of materials having low xesistance but	Ti) It is a soft, yellow metal.
good coxxossion xesistance.	(V) It is vexxy ductile and malleable metal.
7 Fox any conducting materials they have low	V) Thigh melting and holling point 1737th and
sesistance then these will be large amount of	3080 K Sespectively, Density (3/cc)19.9.
Free electron (oxcharge) Flow through the these	A secretarion of the second second second second
Free electron (oxcharge) Flow through the these	Inna. uses
> Those material are known as conducting material	1) It is used for making Jewellery coin & medals.
> These give the good conductor of heat and	11) It is used in medicine and dentistay.
electricity. The sylventy of the sylventy of	11) Space enplosation
> The ability of material to oppose the flower	ly electrical and electronics applinances.
Can electron to be considered to	V) cosmetic and beauty.
free electron (charge) are called resistance of	Ni) computes and mobile phones.
this materials	The state of the s

CS CamScanne

·iv)	It is a soft, white lustuse metal.
vi)	It is a very ductile and mallcable metal.
vin	High meiting and boiling point 967.78°C8
10	2160°C xespectively. Density (8/cc) 10.5.
190	Ans: Application (use):
	It is used in solox technology
Īi)	It is used in soldering and brazing.
îii)	It is used in medicine and water pusification.
	It is used in electrical & electronics applinances.
	It is also used in lewelsy, coins and tablewase
-	Secretary and the secretary an
0	Emplain properties and uses of bond?
	Ans: properties:
	Good conductor of heat and electricity.
Ti)	Good Coxxesion resistance.
	It is a soft, fellow metal the book of
IV	It is vexxy ductile and malleable metal.
V)	Thigh melting and bolling point 17 97 th and
	Fligh meiting and boiling point 1337th and 3080 k &cspectively. Density (8/cc)19.9.
14,	La contrata de la contrata del contrata de la contrata del contrata de la contrata del contrata de la contrata de la contrata de la contrata del contrata de la contrata del contrata del contrata del contrata del contrata de la contrata del c
S Mail	Ans: uses:
(1)	It is used fox making developer, coin a date
ii)	It is used in medicine and denticity.
10)	It is used too making iswellery coin & medals. It is used in medicine and dentistry. Space enployation
(v)	electrical and electronics applinances.
1)	cosmetic and because
VI)	Compared on I made a
. 7	computes and mobile phones.

** ** ** ** ** ** ** ** ** ** ** ** **		Enplain the electrical and mechanic properties
Dispersion of the modernical proposity of the model by vistue of which allows the flow of electrical curvent.  The model by vistue of which allows the flow of electrical curvent.  The is also defined as the seciprocal of resister the sessistivity.  The resistivity may be define as the electrical property of metal by vistue of which resists the flow of electrical curvent.  The resistivity may be define as the electrical property of metal by vistue of which resists the flow of electrical curvent.  The resistivity may be defined as the electrical property of electrical curvent.  The resistivity may be defined as the merchanical properties of interpretation of electrical curves.  The resistance increases with temperature and vice resistance increases with temperature and vice resistance increases which the mechanical properties of ison:  The has positive temperature of ison:  The properties of ison:  The properties of ison:  The modern transfer of ison:  The properties of ison:  Th		
The metal by vixtue of which allows the flew of electrical curvent.  The metal by vixtue of which allows the flew of electrical curvent.  The metal by vixtue of which allows the flew of electrical curvent.  The sesistivity may be define as the electrical property of metal by vixtue of which resists the property of metal by vixtue of which resist the flow of electrical curvent.  The measure inearly with an increase in temporal property of the metal with an increase in temporal property of the metal vice.  The may be defined as the property that is considered white selectron the material for power, press until support of cutting leals materials and the metallic composition have to resist wear white working.  The is very important property that is considered white Selectron the material for power, press until stiffness.  The may be defined as the property by vixtue of which the metal will not deform by defined to the lead is applied.		
the motal by vistue of which allows the flow of electrical current.  The is also defined as the reciprocal of resistences. The resistivity may be define as the electrical property of metal by vistue of which resist the flow of electrical current.  The resistivity may be define as the electrical property of metal by vistue of which resist the flow of electrical current.  The presidence increases with an increase in temporal was positive temperature cofficient. It means that the property of the metal composition of its property of its property of its property.  This positive temperature cofficient. It means resistance increases with temperature and vice of its property.  The property of the property of its property of its property.  The is very impostant property that is considered white selecting the materials for power, press punch propundic, hammers etc.  The may be defined as the property by virtue of which the metal with not deform by defined the helead is applied.	1)	Moxe conductivity:
The is also defined as the secipeacal of sesistand liberst Resistivity.  The sesistivity may be define as the electrical property of metal by vixtue of which resist the flow of electrical current.  The resistance incastly with an increase in temporal with a maximechanical properties of ixon.  The has positive temperature cofficient if memoral and vice we sistance increases with temperature and vice was increased.  Properties of ixon.  The is designed and the metallic combon which have to resist wear white working.  The is very important property that is considered white Selectring the material for power, press punch pneumatic, hammers etc.  The may be defined as the property by virtue of which the metal will not deform by defined the helead is applied.	3	It may be define as the electrical property of
The is also defined as the secipsocal of sesistant library in the sesistivity.  The sesistivity may be define as the electricient property of metal by virtue of which resist the flow of electrical current.  The necesses linearly with an increase in temporal with a maximental properties of iron:  The has positive temperature cofficient if mean resistance increases with temperature and vice sesistance increases with temperature and vice sesistance increases with the medical properties of iron:  The has mechanical properties of iron:  The has mechanical properties of iron:  The transfer has deficient in the helalic combon which have to resist wear while working.  The is very important property that is considered white Selectring the material for power, press punch pneumatic, hammers etc.  The may be defined as the property by virtue of which the metal will not deform by defined to the lead is applied to the lead is applied.		the metal by vistue of which allows the flow
iii least Resistivity:  The **esistivity may be define as the electrical property of metal by virtue of which resist the flow of electrical current.  It increases linearly with an increase in temporal with a maximal properties of iron:  The has positive temperature cofficient It mean resistance increases with temperature and vice was a maximal properties of iron:  The section properties of iron:  The is very important property that is considered white selecting the material for power, press funch presumatic, hammers etc.  The is very important property that is considered white Selectring the material for power, press funch presumatic, hammers etc.  The may be defined as the property by virtue of which the metal will not deform by defined the helead is applied.		T CICCIOICCI CCOSCIII
The *esistivity may be define as the electrice properly of metal by visitue of which resist the flow of electrical current.  The increases linearly with an increase in temporate in temporate coefficient.  The has positive temperature coefficient if mean resistance increases with temperature and visit as an important properties of ixon.  The has positive temperature of ixon.  The has positive temperature of ixon.  The has inechanical properties of ixon.  The properties of ixon.  T	=>	It is also defined as the secipencal of sesistan
The *esistivity may be define as the electrice properly of metal by visitue of which resist the flow of electrical current.  The increases linearly with an increase in temporate in temporate coefficient.  The has positive temperature coefficient if mean resistance increases with temperature and visit as an important properties of ixon.  The has positive temperature of ixon.  The has positive temperature of ixon.  The has inechanical properties of ixon.  The properties of ixon.  T	iù	least Resistivity:
Flows of electrical current.  Flows are selectrical propositions of ison:  Hardiness: The hardness is an important property current.  Hardiness: The hardness is an important property which have to resist wear while working.  To ughness:  Flows important proposity that is considered white Selectring the material for power, press punch pneumotic, hammers etc.  The may be defined as the proposity by virtue of which the metal will not deform by defined to the lead is applied to the lead is applied.	=>	The resistivity may be define as the electrical
Flows of electrical current.  Flows are selectrical propositions of ison:  Hardiness: The hardness is an important property current.  Hardiness: The hardness is an important property which have to resist wear while working.  To ughness:  Flows important proposity that is considered white Selectring the material for power, press punch pneumotic, hammers etc.  The may be defined as the proposity by virtue of which the metal will not deform by defined to the lead is applied to the lead is applied.	111	exceeds of metal by vixtue of which sesist th
TH increases linearly with an increase in temporative coefficient:  The has positive temperature coefficient. If mean resistance (increases with temperature and vice		flow of electrical current.
The has positive temperature cofficient It men xesistance increases with temperature and vice - Versa.  The hardness is an important properties of iron:  The hardness is an important property for cutting tools, materials and the metallic composition which have to resist wear while working.  Toughness:  The is very important property that is considered while Scienting the material for power, press funch pneumatic, hamners etc.  The stiffness:  The may be defined as the property by virtue of which the metal will not deform be defined to the lead is applied.	=>	It increases linearly with an increase in temporat
The has positive temperature cofficient It men xesistance increases with temperature and vice - Versa.  The hardness is an important properties of iron:  The hardness is an important property for cutting tools, materials and the metallic composition which have to resist wear while working.  Toughness:  The is very important property that is considered while Scienting the material for power, press funch pneumatic, hamners etc.  The stiffness:  The may be defined as the property by virtue of which the metal will not deform be defined to the lead is applied.	Iii)	Tempexature mercicient:
- Nessa.  Ans. mechanical properties of iron:  1) Hardness: The hardness is an important prope to cutting tools. materials and the metalic composition have to resist wear while working.  1) Toughness:  1) The is Nery important property that is considered white Selecting the material for power, press punch propundic, hammers etc.  1) The many be defined as the property by virtue of which the metal will not deform by defined to the help of applied.  The lead is applied.	7	It has positive temperature cofficient It mean
→ Ans. mechanical Proposities of ison:  1) Hasciness: The hasciness is an impostant proposed to cutting tools materials and the metallic composition have to resist wear while working.  1) Toughness:  > It is very impostant proposity that is considered white solecting the material for power, press funch pneumatic, hammers etc.  10) stiffness:  > It may be defined as the proposity by virtue of which the metal will not deform be defined to the load is applied.		
i) Hasolness: The hardness is an important proper of cutting tools, materials and the metalic common which have to resist wear while working.  ii) Toughness:  The is very important property that is considered white sclecting the material for power, press funch pneumatic, hammers etc.  iii) stiffness:  The may be defined as the property by virtue of which the metal will not deform be defined to the load is applied.		
of cutting Icols materials and the metalic components which have to resist wear while working.  The is very important property that is considered white Selectring the material for power, press punch pneumatic, hammens etc.  The may be defined as the property by virtue of which the metal will not deform by deficed the the lead is applied. The brillings may be defined.		
11) Toughness:  The is very impostant property that is considered white sclecking the material for power, press funch pneumatic, hammers etc.  The stiffness:  The may be defined as the property by virtue of which the metal will not deform by defined the lead is applied.  The load is applied.	7.0	of cutting tools, materials and the metalic compo
⇒ It is very important property that is considered while selecting the material for power, press punch pneumatic, hammers etc.  110) stiffness:  ⇒ It may be defined as the property by virtue of which the metal will not deform be defied toke the lead is applied.  The brillings may be defined.		
plunch pneumatic, hammers etc.    Punch pneumatic, hammers etc.   Punch pneumatic, hammers etc	11)	
plunch pneumatic, hammers etc.    Punch pneumatic, hammers etc.   Punch pneumatic, hammers etc	7	It is very impostant property that is considered
m) stiffness:  It may be defined as the property by vixtue of which the meian will not deform be defied to be the load is applied.  The load is applied.	100	white Selecting the material for power, press
The may be defined as the property by virtue of which the metal will not deform be defied toke the lead is applied. The brillings may be defined.		
the lead is applied.		
the lead is applied.	=>	It may be defined as the property by virtue of
the lead is applied.	00/4	which the metal will not deform by deflect who
iv) exighteness. The builtleness may be decimede	institu	the land is applied
	(11)	exighteness. The boiltleness may be decimed a