

Teacher's Signature

PAGE NO.: 47

	M LORESWI	PAGE NO.: 47
	27 - Polymerisation	S HOWER (F)
(0-1)	Addition and condensation polymerisation	
>	Addition polymerisation:	
1 Sec. 45.	-monomers have C=c	
>	Condensation polymerisation:	
	- usually contain Functional groups su	uch os? (A)
	· amines (-NH2) and carboscylic arcids (-coo	H)
	L> polyamide + H20	
	· amines (-NH2) and acyl chlorides (-cocl)
	1> polyamide + HU	
	· (-cooH) and (-OH)	
	4) polyester + H20	THE KELLONG
	· (-coa) and (-OH)	
	4 polyester + HCL.	р. 1
Q-2)	Escamples of polyamides	<u> </u>
	Proteins:	0 2019/2010-03 (6-2)
	R O R O	Supplies File
	N-C-C-N-C-C	(2n-1) H20
	H H H I.n	
	peptide (amide) linkage	
,		

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PAGE NO.: 48



$$\begin{bmatrix} N - (CH_2)_5 - C \end{bmatrix}$$

* forms hydrogen bonding between chains

0-3) Examples of polyesters



1 1

3	e ohene		*.		PAGE NO.:	49
2	RPLA (poly-lactic acid)					
			ا افق ترنین وزی ا	rodining r	rootest #	
		CH3 0	2/2000		ania) qyv a	
		CH3 0				
		H	'n	100	William And	September 1
			e e			
		100 E		- 2003-2	2000 1 -	
9-4)	Proteins a	nd DNA.		S70 13 S	1.16	
				<u> </u>		
*	Primary s	tructure:	OB Discussion,	axieur i jui	Land Tolk	1
		sequence of	amino a	cids in	the polypep	tide chain.
	* Sta	LK with - NH2	ends with	, - COOH.		
					nin ma sicu	11 (0-2
岩	Secondary	structure:				*
***************************************	fo	armation of a	d helix ar	d B ple	ated sheets	by
	A 2	en bonding	_		ne peptide b	ond
	and -	-co of anoth	ен. 5%			
*		structure:			\ 350 074	*
		nelix and Br	pleated st	neek for	ded over	polypeptide
	* Stabilis	-3	. \		- CH2 - S - S - C	backbone H2-
	91.507	disulfide by	ridges.		2.1	16
	400	VVF		TVV (3/) : 3r15	
92		Melatively wer		-		
		ionic bonds	(between	NH3 ar	19 200 1	
	Base pairs					
	Adeni	ne - Thymine	e (AT)	= 2	Hydrogen bor	nds
		ine - Cytosir				
				ē	لم نم	

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DATE: / /

PAGE NO.: 50

	DNA is kept stable by:
	Hydrogen bonds between bases
	VVF between base pairs.
	DNA replication:
	- Hydrogen bonds and VVF, and DNA unwinds.
	- Nucleotide triphosphates are brought to the chain
	= Enzyme catalyses reactions
	- Semi-conservative replication.
condo sh	
Q-5)	LDPE and HDPE.
·#	LDPE
	- branched chains
15.2	- weak VVF between non-polar chains
	- NOT closely packed
*	HDPE
	- unbranched chains
	- closely packed
	- increased surface area of contact result in
	Stronger VVF.
	2 (2000) - 10 (100
	(-Tood - torre Terry Transport Warrel Winn) - w
	Princ sepa
	mod magnety H. G. Vol. (Ta) is a supplied - amonth
. 25.	ou apportuit E = (40) = manager
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DATE:

PAGE NO.: 5)

Q-6)	Non-solvent based adhesives.
>	
	to health.
	non-solvent based adherives have been developed
	They usually contain silicon bonded to oxygen.
	They set by reacting with the moisture in air (hydrolysis)
	i ienam de ma espanda de la
eq:	Eposcy Mesins (condensation polymenischion)
7	AHE a thermosetting polymer (set when heated) and form
	cross-links when the reactants are misced.
	Conducting Substances early and Antonio
·	
	H2C-CH-CH2-0-O-CH2-CH-CH2
	CH3 reactive epoxy group.
<i>e</i> g:	Superatue (addition polymerisation)
	Polymerisation is initiated by presence of moisture
	CN CN
	$CH_2 = C - COOCH_3$
	rel as do realizar de la constante de la const
eq:	SMP's (sily) modified polymers)
	OCH3
	OCH3 + H2O + 2 CH3OH
	A OCH3
	>>> ≤i <>>
	OCH3 CCH3
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PAGE NO.: 52

(9-7)	Conducting polymens.
	Ethyne (addition polymerisation)
	monomer: H-C=C-H
	Theorem was a specific to the control of the contro
	It can conduct because its T bond spreads down the
	length of the polymer chain.
	The overlapping p-onbitals of neighbouring carbons
taso).	Hesult in a long band of delocalised et that are
	Free to move along the length of the chain.
	Conducting substances eg: Iz are added to improve
	conductivity.
	They are useful as they don't corride, are less dense
	(light-weight) and can be shaped easily.
Q-g)	Degradable polymers
>	Polyalkenes are chemically inext because of strong C-C
	and C-H bonds which are non-polar: they are
	difficult to biodegrade
	Polyamides and polyesters can be broken down by
	hydrolysis: are biodegradable
	Some polymers with carbonyl groups (C=0) can absorb
	energy from light (UV radiation) which weakens and
	breaks the bond.
	The polymer thus breaks into smaller fragments and is
	easier to biodegrade.

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