Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER-I (CtoD) • EXAMINATION - WINTER • 2014

Subject Code: C312301 Date: 24-12-2014

Subject Name: Basic Polymer Chemistry

Time: 02:30 pm – 04:00 pm Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumption wherever necessary.
- 3. Each question is of 1 mark.
- 4. Use of SIMPLE CALCULATOR is permissible. (Scientific/Higher Version not allowed)
- 5. English version is authentic.

No.	Que	Question Text and Option				
	is a polymer.					
1.	A.	Iron	B.	Calcium		
	C.	Polypropylene	D.	Carbon		
		is a synthetic polymer.				
2.	A.	Wool	B.	Cotton		
	C.	Silk	D.	PVC		
		is an inorganic polymer.				
3.	A.	PP	B.	PVC		
	C.	PE	D.	Silicone.		
		is a thermoplastic polymer.				
4.	A.	PVC	B.	MF		
	C.	UF	D.	PF		
		is a thermosetting polymer.				
5.	A.	MF	B.	PE		
	C.	PP	D.	PS		
	Ethy	lene has a functionality of				
6.	A.	One	B.	Two		
	C.	Three	D.	Four		
	Poly	vethylene adipate has is a polym	ner.			
7.	A.	Natural	B.	Fibre		
	C.	Organic heterochain	D.	Inorganic.		
	CH2	2 CHCL is a monomer.				
8.	A.	Vinyl	B.	Allyl		
	C.	Olefins	D.	Dienes.		
	Benzoyl peroxide is a					
9.	A.	Initiator	B.	Gas		
	C.	Plastic	D.	Rubber		
	Afte	r initiation comes step.				
10.	A.	Suspension	B.	Emulsion		
	C.	propagation	D.	bulk		
	After propagation comes step.					
11.	A.	termination	B.	Emulsion		
	C.	Solution	D.	suspension		
	Water has bond.					
12.	A.	Bulk	B.	Emulsion		
	C.	Suspension	D.	Hydrogen		
	Carbon atom hasbond.					
13.	A.	covalent	B.	Pc		
	C.	Mf	D.	Pvac		
14.	resins is produced by condensation of urea with formaldehyde.					

	A.	Ероху	B.	Alkyd			
	C.	Amino	D.	Phenolic			
	tubes are substitutes for human blood vessels during bypass operation.						
15.	A.	PE	B.	Pvc			
	C.	Ps	D.	Teflon			
	A ra	w material used in making nylon is					
16.	A.	Adipic acid	B.	Ethylene			
	C.	Butadiene	D.	Mma			
	PE is	PE is					
17.	A.	Random copolymer	B.	Alternate copolymer			
	C.	Homopolymer	D.	Crosslinked polymer			
		group is most likely to participate in		•			
18.	A.	Aromatic ring	B.	Ketone			
	C.	Alcohol	D.	Alkene			
	Whi	ch of the following is not a polyamic	de.				
19.	A.	Nylon66	B.	Glyptal			
	C.	Protein	D.	Nylon6			
		product of addition polymerization		on is			
20.	A.	Monomer	B.	Polymer			
	C.	Dimer	D.	Oligomer			
		moplastic are					
21.	A.	Linear	B.	Crosslinked			
	C.	Both A&B	D.	Crystalline			
		ch of the following is a fibre?	1				
22.	A.	Silk	B.	Nylon66			
	C.	Dacron	D.	All of these.			
		present atomic weight scale is based					
23.	A.	C12	B.	C13			
	C.	O16	D.	H1			
		a-s is also known as	-	T. C.			
24.	A.	Teflon	B.	Ptfe			
	C.	Sbr	D.	Polyacrylates			
25		sity of which material is highest from					
25.	A.	Ldpe	B.	Lldpe			
	C.	Hdpe	D.	Uhmwpe			
26		t commonly used rubber vulcanisati					
26.	A.	Sulphur	B.	Bromine			
	C.	Platinum	D.	Alumina			
27		ch of following has the weakest inte		I			
27.	A. C.	Polystoprene	B.	Nylon66			
	1	Polystyrene	D.	Bakelite			
20		erties of polymer is affected by the	D	Intermed a cylor force			
28.	A. C.	Chain length	B.	Intermolecular force All of above			
	1	Branching ch of the following is a copolymer	υ.	All OI above			
29.	A.	ch of the following is a copolymer Ps	B.	Sbr			
<u> </u>	C.	Ptfe	D.				
		ss linked polymers are	υ.	Pp			
30.	A.	Thermoplastic	B.	Thermosetting			
50.	C.	A or B	D.	Fibres only			
	1	ecular weight of plastics ranges fron		1 TOTES OHLY			
31.	A.	1000-5000	В.	5000-10000			
31.	C.	20000-25000	Б. D.	100000-100000			
32.		mercial production of pp employs -					
34.	COIL	microiai production of pp employs -	pc	ory morazation.			

	A.	Emulsion	B.	Bulk		
	C.	Suspension	D.	Solution		
	Branched chain polymers compared to linear polymers have higher					
33.	A.	Density	B.	Tensile strength		
	C.	Melting point	D.	Degree of irregular packing		
		one is a				
34.	A.	Monomer	B.	Inorganic polymer		
	C.	Thermoplastic	D.	Natural polymer		
	Polymers are					
35.	A.	Micromolecules	B.	Macromolecules		
	C.	Sub micro	D.	None of above		
		is an inhibitor				
36.	A.	Nitrobenzene	B.	Silicon		
	C.	Magnesium	D.	Sulphur		
		is a surfactant.				
37.	A.	Ch4	B.	Oxygen		
	C.	H2O	D.	CH3(CH2)6COONA		
	The	concentration beyond which only m	icelle			
38.	A.	AMC	B.	SMC		
	C.	ZMC	D.	CMC		
	Poly	carbonate is manufactured by p	olyme	erization.		
39.	A.	Methatical	B.	Ionic		
	C.	Cationic	D.	Condensation		
		bond is formed by sharing of electro	ons			
40.	A.	Super	B.	Loose		
	C.	Covalent	D.	Technical		
	Whi	ch of the following has a triple bond				
41.	A.	HC≡CH	B.	CH2=CH2		
	C.	СН3-СН3	D.	CCL3		
		is a styrene monomer				
42.	A.	CH2=CHC6H5	B.	CH2		
	C.	CH3	D.	СООН		
	Func	ctionality is determined by number of	of	group present per molecule		
43.	A.	Atomic	B.	Phenolic		
	C.	Functional	D.	Hydrogen		
	Bulk	polymerization is also known as				
44.	A.	Indirect reaction	B.	Auto acceleration		
	C.	Deceleration	D.	Direct		
	Nylo	on 6,6 is prepared by				
45.	A.	Bulk	B.	Solution		
	C.	Suspension	D.	Melt condensation		
	is present in water					
46.	A.	Hydrogen	B.	Ionic		
	C.	Liquid	D.	Solid		
	Whi	ch of the following is not plastic ma	terial			
47.	A.	PE	B.	PMMA		
	C.	Iron	D.	PS		
	Bond angle is defined as					
48.	A.	Size	B.	Electron		
	C.	Angle between atoms	D.	proton		
	OH	is a functional group				
49.	A.	Ketone	B.	Carboxylic		
	C.	Nitride	D.	Alcoholic		
50.	Cool	h is a functional group				

	A.	Cyanide	B.	Carboxylic			
	C.	Alcohol	D.	Ketone			
	Which of the following is not a polyolefin						
51.	A.	PP	B.	PS			
	C.	Neoprene	D.	None of these			
	j	s an addition polymer					
52.	A.	Nylon	B.	PE			
	C.	None of these	D.	Bakelite			
		is a homopolymer					
53.	A.	Nylon66	B.	Neoprene			
	C.	Bakelite	D.	Terylene			
	Whi	ch element is present in all organic o	compo	ound			
54.	A.	Carbon	B.	Nitrogen			
	C.	Oxygen	D.	Phosphorous			
	Whi	ch compound is a saturated hydroca	rbon				
55.	A.	Ethane	B.	Ethene			
	C.	Ethyne	D.	Ethanol			
	Wha	t is the maximum number of covale	nt bon	d an atom of carbon can form			
56.	A.	1	D.	2			
	C.	3	C.	4			
	Duri	ng fractional distillation, hydrocarbo	ons ar	e separated according to their			
57.	A.	Boiling point	B.	Melting point			
	C.	Triple point	D.	Saturation point			
	Whi	ch compound is an organic acid					
58.	A.	СН3ОН	B.	СН3ОСН3			
	C.	СН3СООН	D.	CH3COOCH3			
	Para	chutes are made from which fibre					
59.	A.	Nylon	B.	Terylene			
39.	C.	Ge	D.	Rayon			
		is a condensation polymer	T				
60.	A.	Nylon	B.	Pvc			
	C.	Natural rubber	D.	Teflon			
		ch of the following is a artificial rub					
61.	A.	Neoprene	B.	Isoprene			
	C.	Chloroprene	D.	Teflon			
		ch of the following is an IUPAC nar					
62.	A.	Propanoic acid	B.	Ethyl alcohol			
	C.	Formic acid	D.	Acetaldehyde			
		pmobile steering wheel are made of	П				
63.	A.	PE	B.	PS			
	C.	PC	D.	Cellulose acetate			
	-	MA is known as	-				
64.	A.	perspex	В.	bakelite			
	C.	teflon	D.	Nylon6			
		is not a polyester fibre.	ъ	B			
65.	A.	terylene	B.	Dacron			
	C.	Nylon	D.	Pc			
		on is a homopolymer of	ъ	77' 1			
66.	A.	Styrene	B.	Vinyl			
	C.	Tetraflouroethylene	D.	Oxygen			
		ethylene has the repeating unit	ъ	D. I			
67.	A.	Ethylene	B.	Propylene			
	C.	Vinyl fluoride	D.	styrene			
68.		is a step growth polymer.					

	A.	PE	B.	PVC
	C.	PS	D.	Nylon
is a chain growth polymer.				
69.	A.	PVC	B.	Nylon
	C.	Bakelite	D.	None of these
	The main sources of most organic compound is			
70.	A.	Coal tar	B.	Petroleum
	C.	Both A&B	D.	Methane
