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No.	

Total No. of Pages: 16

P.G. Entrance Examination, May - 2023 M.Sc. AGROCHEMICALS AND PEST MANAGEMENT Sub. Code: 58726

•		sday, 09 - 05 - 20 o 02.30 p.m.	Total Marks: 100	
Instruction	· ·	All questions ar	_ ,	
	2)	Each question c		d comp
	3)		d be marked in ppropriate optior	the given OMR answer sheet by a.
	4)	Follow the instr	uctions given on	OMR sheet.
	5)	Rough work sha paper.	all be done on the	sheet provided at the end of question
	ch of the f		nt converts an ac	cid into alcohol Lindlar's catalyst
A)	LiAlH ₄			
B)	$ZnCl_2$			
C)	Pd/BaS0	O_4		
D)	Aluminu	ım isopropoxid	e in isopropan	ol
2) Toba	acco cont	ains which of th	he following cl	nemicals?
A)	Citral		B)	Rotenone
C)	Alpha-te	erpeneol	D)	Nicotine
3) Whice	ch of the	following is the	e polymer of a	lpha-d-glucose?
A)	Cellulos	e	B)	Starch
C)	Fructose	,	D)	Glucose

4)	pН	of 0.1M HCl is		
	A)	1	B)	10
	C)	13	D)	6
5)	Pyro	ethroids are used in agriculture bed	cause	·
	A)	They are less toxic to mammals		
	B)	Their quick knock-down action of	n ins	ect
	C)	Small quantity is required for acti	on or	n insects
	D)	All the above		
6)	The	NMR spectroscopy is useful for t	he de	tection of
	A)	Hydrogen bonding	B)	Aromaticity
	C)	Geometrical isomers	D)	All of above
7)	Wit	tig reaction is used to convert carb	oonyl	compound into
	A)	Ester	B)	Amine
	C)	Olefin	D)	Acid
8)	Lac	tose is a		
	A)	Monosaccharide	B)	Poly saccharide
	C)	Disaccharide	D)	None of these
9)	Carl	baryl is a type of pes	ticide	
	A)	Organophosphorus	B)	Carbamate
	C)	Organochlorine	D)	Pyrethroid
10)	Whi	ich of the following is the most sta	ıble c	onformation of cyclohexane?
•	A)	Boat	B)	Skew
	C)	Chair	D)	Half- chair

11)	o-Nitrophenol is separated from p-nitrophenol from the reaction mixture				
	A)	Azeotropic Distillation	B)	Steam Distillation	
	C)	Fractional Distillation	D)	Distillation Distillation	
12)	Ethe	ophan is			
	A)	Insecticide	B)	Fungicide	
	C)	Plant growth regulator	D)	Weedicide	
13)	Сус	elo-octane is			
	A)	Aromatic	B)	Non-aromatic	
	C)	Anti-aromatic	D)	Pseudoaromatic	
14)	Che	emical name of washing soda is			
	A)	Sodium carbonates	B)	Sodium hydrogen carbonates	
	C)	Sodium chloride	D)	Sodium hydroxide	
15)	Whi	ich of the following is the universa	l solv	rent?	
	A)	Liquid NH ₃	B)	Water	
	C)	Liquid SO ₂	D)	Acetic acid	
16)	Pure	e metallic solids are			
	A)	super conductors	B)	semiconductors	
	C)	good conductors	D)	insulators	
17)	Bon	nding in metals is best explained by	у		
	A)	valence bond theory	B)	ligand field theory	
	C)	crystal field theory	D)	molecular orbital theory	

18)	In which region of the electromagnetic spectrum does absorption at 600 nm come?					
	A)	Visible	B)	Near-UV		
	C)	Vacuum-UV	D)	Infrared		
19)	Mas	ss spectrometer separates ions on the	ne bas	sis of		
	A)	Mass	B)	Molecular weight		
	C)	Charge	D)	Mass to charge ratio		
20)	In C	Gas Chromatography gas acts as _				
	A)	Stationary Phase	B)	Solvent		
	C)	Mobile phase	D)	Solute		
21)	The	distance between the centers of the	e peak	as of doublet is called		
	A)	Coupling constant	B)	Spin-spin coupling		
	C)	Spin constant	D)	Chemical shift		
22)	Whi	ich of the following is an organoph	nosph	orus insecticide?		
	A)	Azodrin	B)	Thiodan		
	C)	Carbaryl	D)	Baygon		
23)	рН	of the fertile soil is in between				
	A)	1 to 3	B)	3 to 5		
	C)	11 to 13	D)	7 to 8		
24)	Alp	ha particles emitted in radioactive	disint	egration are		
	A)	hydrogen atoms	B)	helium nuclei		
	C)	helium atoms	D)	hydrogen nuclei		

25)	Silicon is doped with trivalent impurity; then the resultant substance is			
	A)	Superconductor	B)	n-type semiconductor
	C)	p-type semiconductor	D)	insulator
26)	Whi	ich of the following compounds is	not a	romatic?
	A)	Naphthalene	B)	Phenol
	C)	Benzene	D)	Cyclohexane
27)	Die	thyl malonate reacts with urea to g	ive _	
	A)	Butyric acid	B)	Glutaric acid
	C)	Barbituric acid	D)	Mandelic acid
28)	Citr	al is a		
	A)	Monoterpene	B)	Squiterpine
	C)	Diterpene Isoprene	D)	Alkaloid
29)	In K	Kjeldhal's method nitrogen is liberat	ed in	the reduced form of
	A)	NO_2	B)	HNO ₃
	C)	$(NH_4)_2SO_4$	D)	HNO_2
30)	Lan	ninar flow burner used in flame pho	otome	ters is also known as
	A)	Turbulent burner	B)	Total consumption burner
	C)	Premix burner	D)	Nozzle mix burner
31)		ich one of the following is not us tometer?	sed as	s a detector in flame emission
	A)	Photovoltaic cell	B)	Photo-emissive tube
	C)	Photonic cell	D)	Chromatogram

32)	The correct sequence of energy levels of a molecule in their increasing order is						
	A)	Electronic > rotational > vibrational	al				
	B)	B) Rotational> electronic > vibrational					
	C)	Vibrational > electronic > rotationa	1				
	D)	Electronic> vibrational > rotational	1				
33)	The	The degeneracy of rotational energy levels is					
	A)	J + 1	B)	2(J + 1)			
	C)	2J + 1	D)	J+2			
34)	The	crystalline structure of NaCl is		<u> </u>			
	A)	Hexagonal close packing	B)	Face centered cubic			
	C)	Square planar	D)	Body centered cubic			
35)	of nitrogen (N) is present in Urea						
	A)	80	B)	70			
	C)	46	D)	0.3			
36)	The bacteria in intestinal lumen of ruminants hydrolyze to yie free glucose.						
	A)	amylopectin	B)	cellulose			
	C)	amylose	D)	lactose			
37)	Whi	ich of the following process initiate	cleav	age in egg?			
	A)	Ovulation	B)	Spermiogenesis			
	C)	Fertilization	D)	Parturition			

38) Ammonia is used in bulk for the production of			of	
	A)	Food items	B)	Fertilizer
	C)	Soap	D)	Pesticides
39)	HSA	AB concept introduced by		
	A)	Lewis	B)	Lorry
	C)	Usanouich	D)	Pearson
40)		eoisomers have same structure by in space.	ut di:	fferent relative arrangement of
	A)	Ions	B)	Cations
	C)	Atoms of ligands	D)	Anions
41)	Opt	ically active complex must be		
	A)	Asymmetric		
	B)	Their mirror images are not super	impo	ossible on each other
	C)	Chiral		
	D)	All of the above		
42)	Met	als are lustrous because of		
	A)	free electrons	B)	free protons
	C)	free neutrons	D)	free photon
43)	Elec	etrical conductivity of metal		with rise in temperature.
	A)	decreases	B)	remains same
	C)	increases	D)	first decreases then increases

44)	Cry	stal structures are		
	A)	fcc	B)	bcc
	C)	hcp	D)	all of these
45)	Hyd	lration of alkenes give	-	
	A)	Esters	B)	Alcohols
	C)	Aldehydes	D)	Amides
46)	Whi	ich of the following is not by-produ	ict of	sugar cane?
	A)	Bagasse	B)	Acetone
	C)	Ethyl alcohol	D)	Molasses
47)	Am	ino acids react to form peptides an	nd pro	oteins this process is known as
	A)	condensation polymerization	B)	addition polymerization
	C)	substitution polymerization	D)	hydration polymerization
48)	In si	ingle X-ray diffraction measurement	t, the c	crystal is mounted on
	A)	X-ray source	B)	Diffraction Plate
	C)	Goniometer	D)	Fluorescent plate
49)	Exa	mple of vinyl polymer is		
	A)	Dacron	B)	Polystyrene
	C)	Nylon 6, 6	D)	Polycarbonate
50)	Whi	ich of the following is not a commo	n met	thod for purification?
,	A)	Sublimation	B)	Electrolysis
	C)	Crystallization	D)	Chromatography

51)		ich of the following vectors is nagement?	used in	n crop improvement and crop
	A)	Agrobacterium	B)	Cosmid
	C)	Plasmid	D)	Phasmid
52)	Wh	ich of the following growth horm	ones pr	oduces apical dominance?
	A)	Ethylene	B)	Cytokinin
	C)	Auxin	D)	Gibberellin
53)	Wh	ich is the causal organism of Tikk	ta diseas	se of ground nut?
	A)	Cercospora arachidicola	B)	Cercospora personata
	C)	Both A and B	D)	Alternaraia alternate
54)	Wh	ich is the fungus causes blast dise	ease on	rice?
	A)	Pyricularia oryzae	B)	Cercospora oryzae
	C)	Alternaria oryzae	D)	Fusarium oryzae
55)	Wh	ich chemical is the fungicide?		
	A)	2, 4.D	B)	Chloropicrin
	C)	Roger	D)	Blitox - 50
56)		is responsible for energ	gy cons	servations reactions of aerobic
	resp	piration.		
	A)	Mitochondria	B)	E.R
	C)	Golgi bodies	D)	Chloroplast
57)	F1 _]	particles are also called as		-
	A)	Oxysomes	B)	Peroxisomes
	C)	Dictyosomes	D)	None of the above

58)	Win	d is important factor.		
	A)	Edaphic	B)	Climatic
	C)	Biotic	D)	Physiographic
59)	The	study of soil science is called		
	A)	Ecology	B)	Phycology
	C)	Pedology	D)	Mycology
60)		soil is having rich water ho	lding	capacity.
	A)	Silt	B)	Clay
	C)	Sandy	D)	Loamy
61)	Xyle	em and phloem patches lie side by	side	on the same radius is known as
	A)	Bicollateral	B)	Collateral
	C)	Amphivasal	D)	Concentric
62)	Sim	ple collateral vascular bundles are	found	l in
	A)	Pleopeltis	B)	Selaginella
	C)	Equisetum	D)	Lycopodium
63)	The	ability of a pathogen to cause dise	ase is	S
	A)	Pathogensis	B)	Pathovar
	C)	Parasexualism	D)	Pathogenicity
64)	In n	netaphase chromosomes undergo _		
	A)	less condensation	B)	no condensation
	C)	maximum condensation	D)	least condensation
65)	Chr	omosomes are most distinct during	S	
	A)	prophase	B)	metaphase
	C)	anaphase	D)	telophase

66) Bioinformatics is an interdisciplinary field, which conne Mathematics, Physics and Biology.			ld, which connects	
	A)	History	B)	Geography
	C)	Computer science	D)	Sociology
67)	Any	sequences can be use	ed to	draw a phylogenetic tree.
	A)	DNA and RNA	B)	Protein
	C)	RNA	D)	DNA, RNA or protein
68)	BLA	AST is		
	A)	Basic Local Alignment Tool	B)	Basic Legal Alignment Tool
	C)	Basic Local Assignment Tool	D)	Basic Local Assessment Tool
69)	Whi	ich one is the largest particulate of t	he cy	toplasm?
	A)	Lysosomes	B)	Golgi apparatus
	C)	Mitochondria	D)	Endoplasmic reticulum
70)	The	degradative processes are categori	zed u	nder the heading of
	A)	Anabolism	B)	Metabolism
	C)	Catabolism	D)	None of the above
71)	Whi	ich one is green manure	_	
	A)	Sesbania	B)	Rice
	C)	Oat	D)	Maize
72)	Whi	ich one is the major component of	Borde	eaux mixture
	A)	Copper sulphate	B)	Calcium chloride
	C)	Sodium chloride	D)	Magnesium sulphate

73)	Elen	nentary particles are also called as		particles.			
	A)	S1	B)	G1			
	C)	W1	D)	F1			
74)	Whe	eat is an example of					
, 4,		haploid plant	B)	allopolyploid plant			
		diploid plant	D)	1 71 1			
75)	The disadvantage of introduction of plants is						
	A)	entry of diseases					
	B)	import of new crop variety					
	C)	exchange of established crops					
	D)	easy method to introduce new cro	ps				
76)	Based on distribution of yolk the egg of insect is						
/		Centrolecithal	B)	Megalecithal			
	C)	Isolecithal	D)	Telolecithal			
77)	Fish	scales are in origin.					
,		Epidermal and dermal	B)	Dermal			
	C)	Epidermal	D)	Endodermal			
7 8)	Call	wall is					
10)			D)	Non normachia			
	A)	Permeable	B)	Non permeable			
	C)	Impermeable	D)	Semi-permeable			

79)) is structural and functional unit of kidney.					
	A)	Alveolus	B)	Neuron		
	C)	Nephron	D)	Villi		
80)	The	disease Ascariasis is produced by	у			
	A)	Round worms	B)	Hook worm		
	C)	Filarial worms	D)	Pin worm		
81) In chick embryo development of brain from						
	A)	Mesoderm	B)	Endoderm		
	C)	Ectoderm	D)	Mesoendoderm		
82) Sagitta belongs to the Phylum						
	A)	Bryzoa	B)	Branchiopoda		
	C)	Pogonophora	D)	Chaetognatha		
83)	Saliva of Leech contains an ar			nticoagulation agent.		
	A)	Haemoglobin	B)	Haemocyanin		
	C)	Hirudin	D)	Haemozoin		
84)	National Park in India is made for conservation of Rhinoceros.					
	A)	Sanjay Gandhi	B)	Kaziranga		
	C)	Chandoli	D)	Tadoba		
85)	Rattle snake is an example of habitat.					
	A)	Desert	B)	Tropical rain forest		
	C)	Cave	D)	Grassland		

86)	Muscle Fatigue is due to						
	A)	Na	B)	Lactic acid			
	C)	K	D)	Citric acid			
87)	In C	Glycolysis Glucose converted into					
	A)	Glycogen	B)	Acyl Co. A			
	C)	Pyruvic acid	D)	Lipid			
88)		node is known as pacemaker	•				
·		VA	B)	AV			
	C)	AS	D)	SA			
89)	80s of eukaryotic ribosome dissociate into						
·		60s and 40s		50s and 30s			
	ŕ	60s and 20s	D)				
90)	are called suicide bags						
		Lysosomes	B)	Mesosomes			
	C)	Dictyosomes	D)	Mitochondria			
91)	Tub	perculosis in Man is caused by					
				Salmonella			
	C)	Plasmodium	D)	Mycobacterium			
92)	Sex	ual reproduction conjugation occur	s in _				
,	A)	Plasmodium	B)	Paramoecium			
	C)	Amoeba	D)	Euglena			
93)	In DNA replication, Okazaki fragments are joined by						
	A)	Endonuclease	B)	Gyrase			
	C)	Ligase	D)	Exonuclease			

94)	Нур	Hyperthyroidism in adult individual result in					
	A)	Myxedema	B)	Exophthalmic goiter			
	C)	Gull's disease	D)	Basedow's disease			
95)	The	The double helicle structure of the DNA is proposed by					
	A)	F.Sanger	B)	H.Khorana			
	C)	Watson & Crick	D)	A.Fleming			
96)	Hae	Haemoglobin contains which of the following element in its structure					
	A)	Mg	B)	Na			
	C)	Fe	D)	Zn			
97)	How many classes are in the antibodies?						
	A)	Four	B)	Five			
	C)	Six	D)	Seven			
98)	Mar	Mark the correct statement.					
	A)	A) Histones are basic proteins					
	B)	Histones are neutral proteins					
	C)	Histones are acidic proteins					
	D)	Histones are not neutral proteins					
99)		are required as building blocks for polypeptide chain synthesis					
	A)	Fatty acids	B)	Amino acids			
	C)	Nucleotides	D)	Phosphoric acids			
100)	100) Which of the following fish is not edible?						
	A)	Catla	B)	Rohu			
	C)	Ell	D)	Silverfish			

\$\$\$

Rough Work